

R0455



76 Broadway  
Sacramento, CA 95818  
phone 916.558.7676  
fax 916.558.7639

October 29, 2004

Mr. Don Hwang  
Alameda County Health Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Alameda County  
NOV 03 2004  
1131 Harbor Bay Parkway

Re: **Document Transmittal**  
Fuel Leak Case  
76 Station #1871  
96 MacArthur Blvd.  
Oakland, CA

Dear Mr. Hwang:

Please find attached TRC's *Quarterly Status Report*, dated 10/29/04, and TRC's *Quarterly Monitoring Report*, dated 10/06/04 for the above referenced site. I declare, under penalty of perjury, that to the best of my knowledge the information and/or recommendations contained in the attached proposal or report is true and correct.

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Thomas H. Kosel  
Site Manger, Risk Management and Remediation  
ConocoPhillips  
76 Broadway, Sacramento, CA 95818

Attachment

cc: Roger Batra, TRC



Customer-Focused Solutions

October 29, 2004

TRC Project No. 42016101

Mr. Don Hwang  
Alameda County Health Services  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Alameda County Health Services  
NOV 03 2004

**RE: Quarterly Status Report - Third Quarter 2004  
76 Service Station #1871, 96 Macarthur Boulevard, Oakland, California  
Alameda County**

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Third Quarter 2004 Quarterly Status Report for the subject site, shown on attached Figure 3 through 5.

#### **PREVIOUS ASSESSMENTS**

The site is located on the north corner of the intersection of MacArthur Boulevard and Harrison Street in Oakland, California. The site is currently an operating service station.

May 1992: Roux Associates (Roux) performed a dispenser and product piping modification project.

October 1992: Roux installed three 4-inch diameter groundwater monitoring wells onsite.

January 1993: Quarterly groundwater sampling and monitoring began.

August 1994: A 280-gallon single-wall steel waste oil underground storage tank (UST) was replaced with a 550-gallon double-wall fiberglass UST. Confirmation sampling was performed.

February 1996: The Alameda County Health Care Service Agency (ACHCSA) approved Unocal's request to reduce the groundwater monitoring and sampling program from quarterly to semiannually (KEI, 1996).

March 1996: Two monitoring wells were installed at the site.

May 1998: John's Excavating of Santa Rosa, California removed all underground and aboveground equipment and facilities. Facilities included two 12,000-gallon double-wall steel gasoline USTs, one 550-gallon double-wall steel waste oil UST, two hydraulic lifts, two dispenser islands and related single-wall product piping, and one service station building. Gettler-Ryan Inc.

(GR) personnel performed soil and groundwater sampling activities in conjunction with the station demolition. A total of 1,252.78 tons of soil were removed from the site during demolition activities and transported to Forward Landfill for disposal.

September 1998: Two wells that were damaged during site demolition activities were drilled out and the boreholes backfilled with neat cement to grade. In addition, one soil boring was advanced onsite to a total depth of 16.5 feet below ground surface (bgs). Groundwater was encountered at approximately 10.5 feet bgs. Soil and groundwater samples were collected for use in a Risk Based Corrective Action (RBCA) analysis for the site.

February 1999: GR performed a RBCA evaluation. The RBCA evaluation determined that, since the site was scheduled for construction of a fuel dispensing facility covered with concrete and asphalt and no groundwater receptors were located within a .25 mile radius of the site, the potential threat to public health and environment was not of significant concern.

June 1999: GR installed three offsite monitoring wells, and advanced nine soil borings on and near the site. Depth-discrete soil and groundwater samples were collected.

April 2002: An ozone injection system was installed and activated at the site.

September 2003: Operations and maintenance responsibilities for the remediation system were transferred to SECOR International Inc. (SECOR).

October 2003: Site environmental consulting responsibilities were transferred to TRC.

### **SENSITIVE RECEPTORS**

According to the RBCA evaluation, no groundwater receptors were located within a ¼mile radius of the site. No other sensitive receptor survey has been identified.

### **MONITORING AND SAMPLING**

One onsite and six offsite wells are currently monitored quarterly. All wells were sampled this quarter. The groundwater gradient and flow direction were 0.04 foot/foot to the southwest. These data were consistent with historical data.

### **CHARACTERIZATION STATUS**

Total purgeable petroleum hydrocarbons (TPPH) were detected in four of seven wells, with a maximum concentration of 41,000 micrograms per liter ( $\mu\text{g}/\text{l}$ ) in onsite well MW-1.

Benzene was detected in one of seven wells, with a maximum concentration of 550  $\mu\text{g}/\text{l}$  in onsite well MW-1.

Methyl tertiary butyl ether (MTBE) was detected in five of seven wells, with a maximum concentration of 11,000 µg/l in offsite well MW-7.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring well MW-8 contained 5,500 µg/l MTBE and 3,200 µg/l TPPH, and was non-detect for benzene. Perimeter downgradient monitoring well MW-9 contained 1,300 µg/l MTBE, and was non-detect for benzene and TPPH. Perimeter downgradient monitoring well MW-10 was non-detect for benzene, TPPH, and MTBE. Perimeter downgradient monitoring well MW-11 was non-detect for benzene, TPPH, and MTBE.

### **REMEDIATION STATUS**

April 2002: GR installed an ozone sparging system utilizing 10 ozone sparge wells completed to maximum depths of 25 to 30 feet bgs. The system was activated on April 8, 2002. Since then approximately 126 pounds of ozone have been injected.

Third Quarter 2004 Evaluation: Since system activation, hydrocarbon concentrations have declined in MW-1 and MW-6. Hydrocarbon concentrations in MW-7 initially increased, then decreased, and have been relatively stable over the last year. Petroleum hydrocarbon concentrations in perimeter downgradient monitoring wells MW-9 through MW-11 have remained stable.

### **RECENT CORRESPONDENCE**

No correspondence this quarter.

### **CURRENT QUARTER ACTIVITIES**

July 29, 2004: TRC performed groundwater monitoring and sampling. Wastewater generated from well purging and equipment cleaning was stored at TRC's groundwater monitoring facility in Concord, California, and transported by Onyx to the ConocoPhillips Refinery in Rodeo, California, for treatment and disposal.

July-September 2004: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. Approximately 13.41 pounds of ozone was injected during the third quarter. No waste was generated at the site.

### **NEXT QUARTER ACTIVITIES**

Continue quarterly monitoring and sampling to assess plume stability and concentration trends.

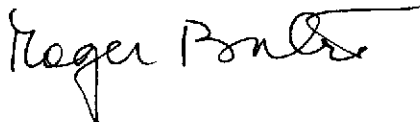
Continue operating the ozone sparging system to reduce hydrocarbon mass in the subsurface. Continue sampling of monitoring wells MW-1 and MW-7 to aid in evaluation of the ozone sparging system.

QSR – Third Quarter 2004  
76 Service Station #1871, Oakland, California  
October 29, 2004  
Page 4

If you have any questions regarding this report, please call me at (925) 688-2466.

Sincerely,

TRC



Roger Batra  
Senior Project Manager

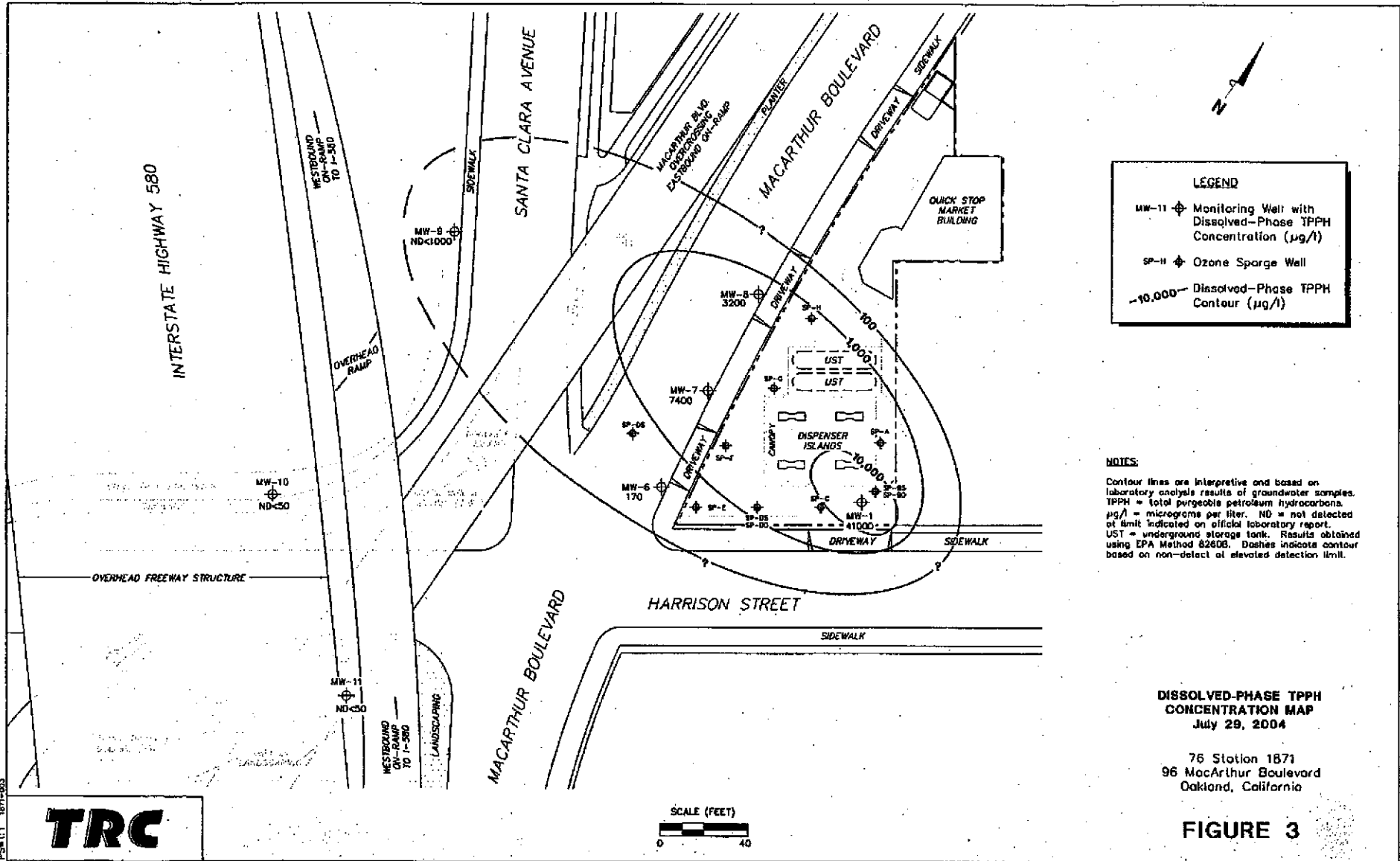
Attachments:

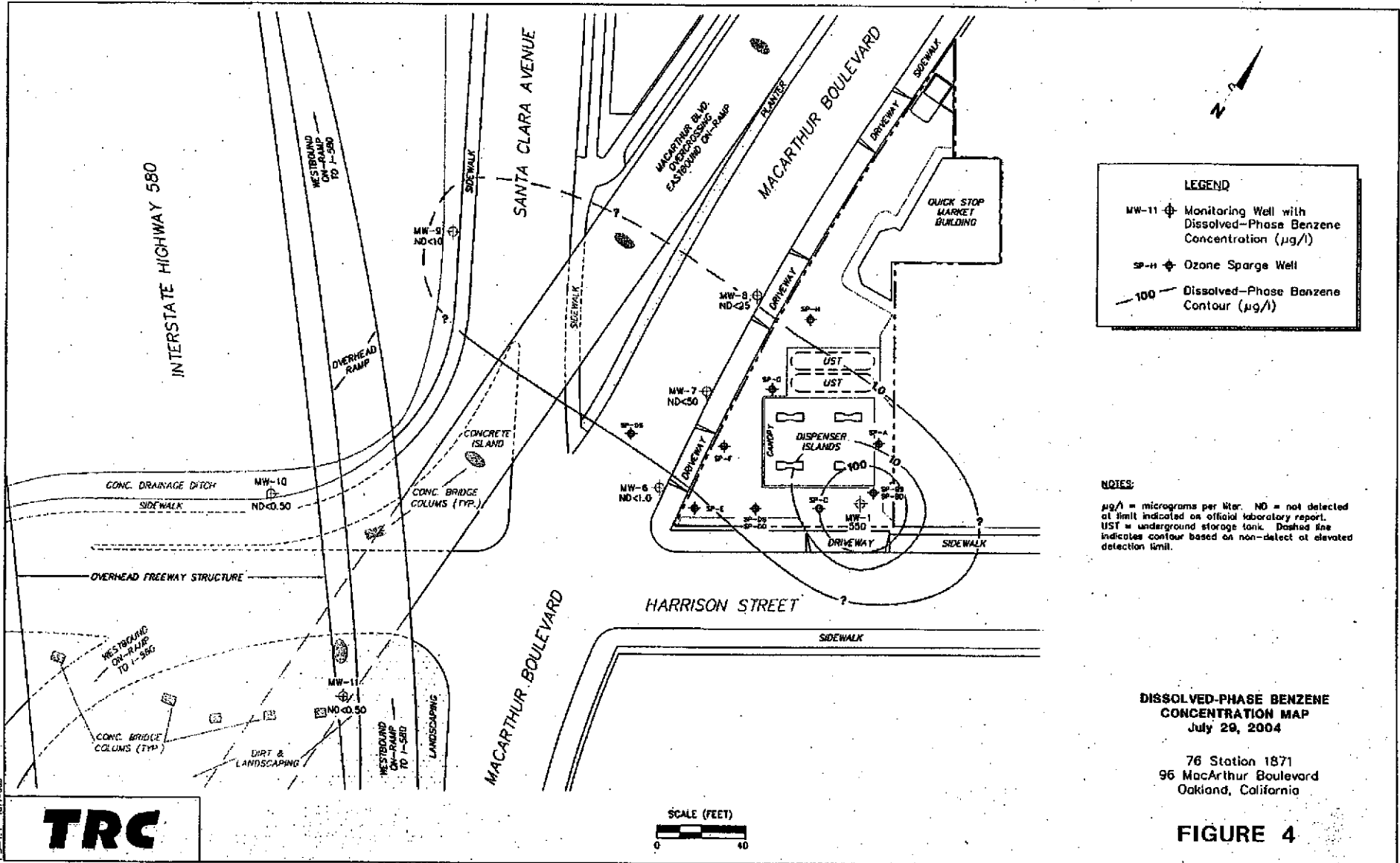
Figure 3 – Dissolved-Phase TPH Concentration Map, July 29, 2004, from Third Quarter 2004 Quarterly Monitoring Report, dated October 20, 2004 by TRC.

Figure 4 – Dissolved-Phase Benzene Concentration Map, July 29, 2004, from Third Quarter 2004 Quarterly Monitoring Report, dated October 20, 2004 by TRC.

Figure 5 – Dissolved-Phase MTBE Concentration Map, July 29, 2004, from Third Quarter 2004 Quarterly Monitoring Report, dated October 20, 2004 by TRC.

cc: Thomas Kosel, ConocoPhillips (hard copy and electronic upload)





**LEGEND**

- MW-11 ⊕ Monitoring Well with Dissolved-Phase Benzene Concentration (µg/l)
- SP-H ⊕ Ozone Sparge Well
- 100 — Dissolved-Phase Benzene Contour (µg/l)

**NOTES:**

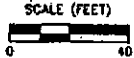
µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report.  
 UST = underground storage tank. Dashed line indicates contour based on non-detect or elevated detection limit.

**DISSOLVED-PHASE BENZENE CONCENTRATION MAP**  
 July 29, 2004

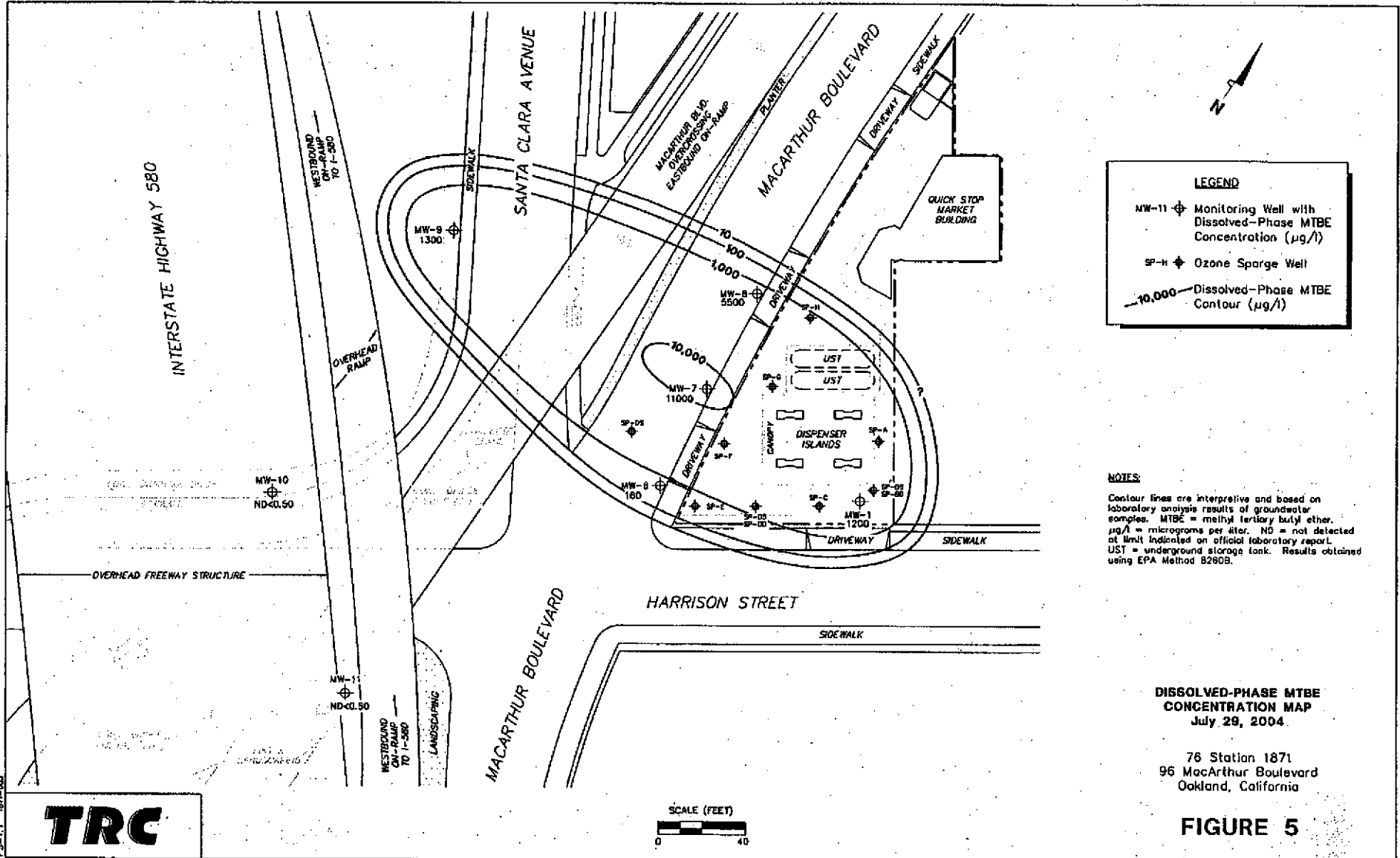
76 Station 1871  
 96 MacArthur Boulevard  
 Oakland, California

**FIGURE 4**

Graphics on (X:\)\GRAPHICS\Projects By... \20-xxxx\20-0400\1-1000\1871+ \1871.dwg 8/23/04 blw



PS=1:1 1871-003







Customer-Focused Solutions

October 20, 2004

ConocoPhillips Company  
76 Broadway  
Sacramento, California 95818

ATTN: MR. THOMAS H. KOSEL

SITE: 76 STATION 1871  
96 MACARTHUR BOULEVARD  
OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT  
JULY THROUGH SEPTEMBER 2004

Dear Mr. Kosel:

Please find enclosed our Quarterly Monitoring Report for 76 Station, located at 96 MacArthur Boulevard, Oakland, California. If you have any questions regarding this report, please call us at (949) 753-0101.

Sincerely,

TRC

Anju Farfan *for*  
QMS Operations Manager

CC: Mr. Roger Batra, TRC (2 copies)

Enclosures  
20-0400/1871R04.QMS



Customer-Focused Solutions

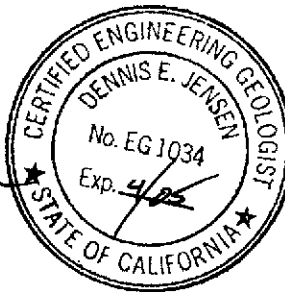
**QUARTERLY MONITORING REPORT  
JULY THROUGH SEPTEMBER 2004**

76 STATION 1871  
96 MacArthur Boulevard  
Oakland, California

Prepared For:

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

By:

Senior Project Geologist, Irvine Operations  
October 20, 2004

### LIST OF ATTACHMENTS

Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key Table 1: Current Fluid Levels and Selected Analytical Results Table 2: Historic Fluid Levels and Selected Analytical Results Table 3: Additional Analytical Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase TPH Concentration Map Figure 4: Dissolved-Phase Benzene Concentration Map Figure 5: Dissolved-Phase MTBE Concentration Map
Graphs	Groundwater Elevations vs. Time Benzene Concentrations vs. Time
Field Activities	General Field Procedures Groundwater Sampling Field Notes
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

**Summary of Gauging and Sampling Activities**  
**July 2004 through September 2004**  
**76 Station 1871**  
**96 MacArthur**  
**Oakland, CA**

Project Coordinator: **Thomas Kosel**  
Telephone: **916-558-7666**

Water Sampling Contractor: **TRC**  
Compiled by: **Valentina Tobon**

Date(s) of Gauging/Sampling Event: **07/29/04**

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**Sample Points**

Groundwater wells: **1** onsite, **6** offsite      Wells gauged: **7**      Wells sampled: **7**  
Purging method: **Bailer/diaphragm pump**  
Purge water disposal: **Onyx/Rodeo Unit 100**  
Other Sample Points: **0**      Type: **n/a**

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**Liquid Phase Hydrocarbons (LPH)**

Wells with LPH: **0**      Maximum thickness (feet): **n/a**  
LPH removal frequency: **n/a**      Method: **n/a**  
Treatment or disposal of water/LPH: **n/a**

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**Hydrogeologic Parameters**

Depth to groundwater (below TOC):      Minimum: **7.41 feet**      Maximum: **15.81 feet**  
Average groundwater elevation (relative to available local datum): **68.89 feet**  
Average change in groundwater elevation since previous event: **-0.31 feet**  
Interpreted groundwater gradient and flow direction:  
    Current event: **0.04 ft/ft, southwest**  
    Previous event: **0.05 ft/ft, southwest (04/02/04)**

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**Selected Laboratory Results**

Wells with detected **Benzene**: **1**      Wells above MCL (1.0 µg/l): **1**  
    Maximum reported benzene concentration: **550 µg/l (MW-1)**

Wells with **TPPH 8260B**      **4**      Maximum: **41,000 µg/l (MW-1)**  
Wells with **MTBE**      **5**      Maximum: **11,000 µg/l (MW-7)**

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**Notes:**

# TABLES

## TABLE KEY

### STANDARD ABBREVIATIONS

--	=	not analyzed, measured, or collected
LPH	=	liquid-phase hydrocarbons
Trace	=	less than 0.01 foot of LPH in well
µg/l	=	micrograms per liter (approx. equivalent to parts per billion, ppb)
mg/l	=	milligrams per liter (approx. equivalent to parts per million, ppm)
ND <	=	not detected at or above laboratory detection limit
TOC	=	top of casing (surveyed reference elevation)

### ANALYTES

BTEX	=	benzene, toluene, ethylbenzene, and (total) xylenes
DIPE	=	di-isopropyl ether
ETBE	=	ethyl tertiary butyl ether
MTBE	=	methyl tertiary butyl ether
PCB	=	polychlorinated biphenyls
PCE	=	tetrachloroethene
TBA	=	tertiary butyl alcohol
TCA	=	trichloroethane
TCE	=	trichloroethene
TPH-G	=	total petroleum hydrocarbons with gasoline distinction
TPH-D	=	total petroleum hydrocarbons with diesel distinction
TPPH	=	total purgeable petroleum hydrocarbons
TRPH	=	total recoverable petroleum hydrocarbons
TAME	=	tertiary amyl methyl ether
1,1-DCA	=	1,1-dichloroethane
1,2-DCA	=	1,2-dichloroethane (same as EDC, ethylene dichloride)
1,1-DCE	=	1,1-dichloroethene
1,2-DCE	=	1,2-dichloroethene (cis- and trans-)

### NOTES

1. Elevations are in feet above mean sea level. Depths are in feet below surveyed top-of-casing.
2. Groundwater elevations for wells with LPH are calculated as:  $\text{Surface Elevation} - \text{Measured Depth to Water} + (\text{Dp} \times \text{LPH Thickness})$ , where Dp is the density of the LPH, if known. A value of 0.75 is used for gasoline and when the density is not known. A value of 0.83 is used for diesel.
3. Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures).
4. Comments shown on tables are general. Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report.
5. A "J" flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory.
6. Other laboratory flags (qualifiers) may have been reported. See the official laboratory report (attached) for a complete list of laboratory flags.
7. Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display. Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report.
8. Groundwater vs. Time graphs may be corrected for apparent level changes due to resurvey.

### REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 1871 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

**Table 1**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**July 29, 2004**  
**76 Station 1871**

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: 9.5-24.5)</b>												
7/29/2004	86.99	14.61	0.00	72.38	-1.43	--	41000	550	ND<20	2000	6100	--	1200	
<b>MW-6</b>		<b>(Screen Interval in feet: 5.0-25.0)</b>												
7/29/2004	79.67	9.75	0.00	69.92	-1.12	--	170	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	160	
<b>MW-7</b>		<b>(Screen Interval in feet: 5.0-25.0)</b>												
7/29/2004	80.67	9.40	0.00	71.27	-1.31	--	7400	ND<50	ND<50	ND<50	ND<100	--	11000	
<b>MW-8</b>		<b>(Screen Interval in feet: 5.0-25.0)</b>												
7/29/2004	81.71	9.78	0.00	71.93	-1.27	--	3200	ND<25	ND<25	ND<25	ND<50	--	5500	
<b>MW-9</b>		<b>(Screen Interval in feet: DNA)</b>												
7/29/2004	82.07	15.81	0.00	66.26	-0.73	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1300	
<b>MW-10</b>		<b>(Screen Interval in feet: DNA)</b>												
7/29/2004	74.98	7.41	0.00	67.57	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-11</b>		<b>(Screen Interval in feet: DNA)</b>												
7/29/2004	77.31	14.39	0.00	62.92	3.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through July 2004**  
**76 Station 1871**

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: 9.5-24.5)</b>														
1/25/1993	81.18	--	0.00	--	--	120000	--	2100	4600	4900	22000	--	--	
4/29/1993	81.18	13.71	0.00	67.47	--	100000	--	850	2000	4300	19000	--	--	
7/16/1993	81.18	14.51	0.00	66.67	-0.80	29000	--	590	560	980	4200	--	--	
10/19/1993	81.18	15.20	0.00	65.98	-0.69	67000	--	1400	2600	2900	5000	--	--	
1/20/1994	81.18	15.17	0.00	66.01	0.03	92000	--	1200	3000	3400	17000	--	--	
4/13/1994	81.18	14.44	0.00	66.74	0.73	51000	--	1000	2600	3200	15000	--	--	
7/13/1994	81.18	14.88	0.00	66.30	-0.44	35000	--	550	150	1400	5700	--	--	
10/10/1994	81.18	15.55	0.00	65.63	-0.67	52000	--	1000	810	3300	12000	--	--	
1/10/1995	81.18	12.44	0.00	68.74	3.11	810	--	16	18	59	250	--	--	
4/17/1995	81.18	12.68	0.00	68.50	-0.24	48000	--	880	530	2500	11000	--	--	
7/24/1995	81.18	13.97	0.00	67.21	-1.29	48000	--	1500	420	2700	9700	--	--	
10/23/1995	81.18	14.85	0.00	66.33	-0.88	47000	--	780	210	2100	11000	270	--	
1/18/1996	81.18	14.21	0.00	66.97	0.64	30000	--	1500	500	3500	13000	2400	--	
4/18/1996	86.24	13.40	0.00	72.84	5.87	66000	--	2700	2200	3100	13000	57000	--	
7/24/1996	86.24	14.15	0.00	72.09	-0.75	5600	--	2100	ND	160	160	24000	--	
10/24/1996	86.24	14.85	0.00	71.39	-0.70	110000	--	7500	8000	3300	14000	58000	--	
1/28/1997	86.24	11.25	0.00	74.99	3.60	94000	--	7700	19000	3100	15000	120000	--	
7/29/1997	86.24	14.67	0.00	71.57	-3.42	ND	--	ND	ND	ND	ND	70000	--	
1/14/1998	86.24	12.27	0.00	73.97	2.40	85000	--	6100	10000	3000	17000	110000	--	
7/1/1998	86.24	14.32	0.00	71.92	-2.05	110000	--	8700	12000	2700	15000	110000	--	
6/18/1999	86.24	13.93	0.00	72.31	0.39	49000	--	6900	6500	380	12000	72000	47000	
1/21/2000	86.24	15.05	0.00	71.19	-1.12	63700	--	5520	2000	2640	13100	57100	--	
7/10/2000	86.24	13.97	0.00	72.27	1.08	67800	--	9910	4120	3330	16100	67400	54000	
1/4/2001	86.24	14.92	0.00	71.32	-0.95	63900	--	6270	784	2,670	12,900	--	38100	



**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through July 2004**  
**76 Station 1871**

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 continued</b>														
7/16/2001	86.24	14.32	0.00	71.92	0.60	66000	--	7100	330	2300	9800	36000	41000	
1/31/2002	86.99	13.54	0.00	73.45	1.53	42000	--	5800	1800	2000	8200	26000	26000	
4/11/2002	86.99	13.64	0.00	73.35	-0.10	58000	--	2900	1200	1800	10000	--	19000	
7/11/2002	86.99	13.96	0.00	73.03	-0.32	--	5900	330	ND<10	230	600	3400	3400	
10/15/2002	86.99	14.71	0.00	72.28	-0.75	--	470	16	ND<2.5	14	16	390	390	
1/14/2003	86.99	12.77	0.00	74.22	1.94	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	49	49	
4/16/2003	86.99	13.18	0.00	73.81	-0.41	--	510	57	0.62	29	61	160	160	
7/16/2003	86.99	14.26	0.00	72.73	-1.08	--	27000	260	23	730	3200	1200	1200	
10/2/2003	86.99	14.95	0.00	72.04	-0.69	--	45000	1400	32	2900	7600	--	3200	
1/7/2004	86.99	12.30	0.00	74.69	2.65	--	34000	690	41	1600	5200	--	2600	
4/2/2004	86.99	13.18	0.00	73.81	-0.88	--	350	1.8	ND<0.50	6.2	30	--	19	
7/29/2004	86.99	14.61	0.00	72.38	-1.43	--	41000	550	ND<20	2000	6100	--	1200	
<b>MW-2 (Screen Interval in feet: DNA)</b>														
11/3/1992	76.61	--	--	--	--	140	--	2.2	ND	ND	2	--	--	
1/25/1993	76.61	--	--	--	--	2100	--	56	1.1	90	140	--	--	
4/29/1993	76.61	9.73	0.00	66.88	--	1500	--	290	ND	33	11	--	--	
7/16/1993	76.61	10.17	0.00	66.44	-0.44	510	--	17	0.6	3.2	2.5	--	--	
10/19/1993	76.61	11.18	0.00	65.43	-1.01	670	--	24	1.1	7.7	23	--	--	
1/20/1994	76.61	11.12	0.00	65.49	0.06	820	--	97	ND	12	ND	--	--	
4/13/1994	76.61	10.12	0.00	66.49	1.00	550	--	71	ND	5.1	1.3	--	--	
7/13/1994	76.61	10.86	0.00	65.75	-0.74	2000	--	490	ND	17	13	--	--	
10/10/1994	76.61	11.48	0.00	65.13	-0.62	2300	--	340	ND	25	ND	--	--	
1/10/1995	76.61	8.71	0.00	67.90	2.77	850	--	3.8	ND	8.5	1.3	--	--	
4/17/1995	76.61	8.90	0.00	67.71	-0.19	1300	--	4.7	ND	8.3	1.2	--	--	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through July 2004**  
**76 Station 1871**

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)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-2 continued</b>														
7/24/1995	76.61	9.94	0.00	66.67	-1.04	960	--	20	ND	4.2	6.2	--	--	
10/23/1995	76.61	10.70	0.00	65.91	-0.76	ND	--	ND	ND	ND	ND	19	--	
1/18/1996	76.61	10.11	0.00	66.50	0.59	900	--	300	86	7.6	18	4300	--	
4/18/1996	81.66	9.27	0.00	72.39	5.89	18000	--	3600	680	890	4100	19000	--	
7/24/1996	81.66	10.02	0.00	71.64	-0.75	100000	--	13000	21000	2700	16000	120000	--	
10/24/1996	81.66	10.78	0.00	70.88	-0.76	800	--	110	17	11	20	20000	--	
1/28/1997	81.66	7.70	0.00	73.96	3.08	45000	--	2400	2900	2000	7600	29000	--	
7/29/1997	81.66	10.28	0.00	71.38	-2.58	ND	--	1.2	0.72	0.63	0.62	17000	--	
1/14/1998	81.66	8.63	0.00	73.03	1.65	14000	--	1000	150	790	3300	23000	--	
7/1/1998	81.66	9.53	0.00	72.13	-0.90	2700	--	100	ND	180	78	7100	--	
6/18/1999	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-3 (Screen Interval in feet: DNA)</b>														
11/3/1992	77.48	--	--	--	--	2100	--	120	15	38	200	--	--	
1/25/1993	77.48	--	--	--	--	2300	--	80	1	55	52	--	--	
4/29/1993	77.48	11.37	0.00	66.11	--	4500	--	1700	ND	200	140	--	--	
7/16/1993	77.48	12.09	0.00	65.39	-0.72	4000	--	1100	28	52	70	--	--	
10/19/1993	77.48	12.69	0.00	64.79	-0.60	3800	--	42	ND	50	56	--	--	
1/20/1994	77.48	12.65	0.00	64.83	0.04	4200	--	11	ND	21	15	--	--	
4/13/1994	77.48	12.02	0.00	65.46	0.63	4200	--	210	ND	36	53	--	--	
7/13/1994	77.48	12.46	0.00	65.02	-0.44	1800	--	16	16	ND	21	--	--	
10/10/1994	77.48	12.98	0.00	64.50	-0.52	4300	--	11	ND	12	ND	--	--	
1/10/1995	77.48	10.42	0.00	67.06	2.56	310	--	4.6	ND	3.5	2.1	--	--	
4/17/1995	77.48	10.42	0.00	67.06	0.00	7800	--	ND	4.6	300	450	--	--	
7/24/1995	77.48	11.76	0.00	65.72	-1.34	3200	--	170	ND	22	16	--	--	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through July 2004**  
**76 Station 1871**

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>														
10/23/1995	77.48	12.50	0.00	64.98	-0.74	3900	--	55	ND	19	11	4500	--	
1/18/1996	77.48	11.79	0.00	65.69	0.71	2200	--	270	33	26	18	5500	--	
4/18/1996	82.55	11.30	0.00	71.25	5.56	6000	--	1800	ND	100	230	48000	--	
7/24/1996	82.55	12.17	0.00	70.38	-0.87	ND	--	2500	ND	ND	ND	71000	--	
10/24/1996	82.55	12.65	0.00	69.90	-0.48	3800	--	660	ND	15	ND	65000	--	
1/28/1997	82.55	9.50	0.00	73.05	3.15	4400	--	250	13	87	47	54000	--	
7/29/1997	82.55	11.99	0.00	70.56	-2.49	ND	--	3500	ND	220	ND	75000	--	
1/14/1998	82.55	10.30	0.00	72.25	1.69	ND	--	430	ND	100	380	37000	--	
7/1/1998	82.55	11.70	0.00	70.85	-1.40	ND	--	430	ND	ND	ND	45000	--	
6/18/1999	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-4 (Screen Interval in feet: DNA)</b>														
4/18/1996	82.04	9.83	0.00	72.21	--	ND	--	630	ND	ND	ND	18000	--	
7/24/1996	82.04	10.47	0.00	71.57	-0.64	ND	--	ND	ND	ND	5.2	3900	--	
10/24/1996	82.04	11.14	0.00	70.90	-0.67	ND	--	ND	ND	ND	ND	6300	--	
1/28/1997	82.04	7.94	0.00	74.10	3.20	1200	--	490	ND	17	6.8	16000	--	
7/29/1997	82.04	10.86	0.00	71.18	-2.92	50	--	1.5	0.61	0.73	0.78	15000	--	
1/14/1998	82.04	8.73	0.00	73.31	2.13	ND	--	ND	ND	ND	ND	5200	--	
7/1/1998	82.04	10.51	0.00	71.53	-1.78	ND	--	ND	ND	ND	ND	640	--	
6/18/1999	82.04	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-5 (Screen Interval in feet: DNA)</b>														
4/18/1996	81.80	9.65	0.00	72.15	--	31000	--	5500	1400	1700	8100	66000	--	
7/24/1996	81.80	10.80	0.00	71.00	-1.15	32000	--	6400	ND	1600	6100	120000	--	
10/24/1996	81.80	11.40	0.00	70.40	-0.60	17000	--	6900	ND	970	130	84000	--	
1/28/1997	81.80	7.76	0.00	74.04	3.64	19000	--	6100	62	82	310	160000	--	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through July 2004**  
**76 Station 1871**

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>														
7/29/1997	81.80	11.58	0.00	70.22	-3.82	ND	--	ND	ND	ND	ND	71000	--	
1/14/1998	81.80	9.08	0.00	72.72	2.50	ND	--	3600	ND	ND	ND	80000	--	
7/1/1998	81.80	11.25	0.00	70.55	-2.17	6400	--	2100	21	120	330	61000	--	
6/18/1999	81.80	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-6 (Screen Interval in feet: 5.0-25.0)</b>														
6/18/1999	78.91	9.30	0.00	69.61	--	2100	--	21	29	ND	47	97000	71000	
1/21/2000	78.91	9.37	0.00	69.54	-0.07	1880	--	143	31.2	106	196	41200	48800	
7/10/2000	78.91	8.94	0.00	69.97	0.43	5710	--	869	209	301	1430	22200	19500	
1/4/2001	78.91	9.21	0.00	69.70	-0.27	ND	--	ND	ND	ND	ND	--	9510	
7/16/2001	78.91	9.42	0.00	69.49	-0.21	4800	--	200	21	150	440	29000	34000	
1/31/2002	78.91	8.50	0.00	70.41	0.92	12000	--	250	92	500	1500	26000	31000	
4/11/2002	79.67	9.08	0.00	70.59	0.18	3600	--	42	32	39	280	120000	--	
7/11/2002	79.67	9.70	0.00	69.97	-0.62	--	12000	ND<100	ND<100	ND<100	ND<200	--	15000	
10/15/2002	79.67	9.96	0.00	69.71	-0.26	--	1300	ND<10	ND<10	ND<10	ND<20	--	3200	
1/14/2003	79.67	8.31	0.00	71.36	1.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
4/16/2003	79.67	8.21	0.00	71.46	0.10	--	270	ND<0.50	ND<0.50	ND<0.50	1.3	--	15	
7/16/2003	79.67	9.43	0.00	70.24	-1.22	--	290	39	0.6	ND<0.50	15	--	150	
10/2/2003	79.67	9.92	0.00	69.75	-0.49	--	200	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	220	
1/7/2004	79.67	8.08	0.00	71.59	1.84	--	140	2.4	ND<1.0	8.6	13	--	86	
4/2/2004	79.67	8.63	0.00	71.04	-0.55	--	3200	ND<20	ND<20	ND<20	ND<40	--	5900	
7/29/2004	79.67	9.75	0.00	69.92	-1.12	--	170	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	160	
<b>MW-7 (Screen Interval in feet: 5.0-25.0)</b>														
6/18/1999	79.92	8.70	0.00	71.22	--	ND	--	ND	ND	ND	ND	16000	13000	
1/21/2000	79.92	9.30	0.00	70.62	-0.60	ND	--	ND	ND	ND	ND	12300	18200	

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**November 1992 Through July 2004**  
**76 Station 1871**

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>														
7/10/2000	79.92	8.72	0.00	71.20	0.58	ND	--	ND	ND	ND	ND	16900	13800	
1/4/2001	79.92	9.17	0.00	70.75	-0.45	ND	--	ND	ND	ND	0.719	--	37.3	
7/16/2001	79.92	9.02	0.00	70.90	0.15	ND	--	ND	ND	ND	ND	7200	4700	
1/31/2002	79.92	7.91	0.00	72.01	1.11	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	8900	9900	
4/11/2002	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
7/11/2002	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
10/15/2002	80.67	9.81	0.00	70.86	--	--	ND<5000	ND<50	ND<50	ND<50	ND<100	--	12000	
1/14/2003	80.67	7.89	0.00	72.78	1.92	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	33000	
4/16/2003	80.67	8.04	0.00	72.63	-0.15	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	37000	
7/16/2003	80.67	9.19	0.00	71.48	-1.15	--	25000	ND<250	ND<250	ND<250	ND<500	--	38000	
10/2/2003	80.67	9.89	0.00	70.78	-0.70	--	17000	ND<100	ND<100	ND<100	ND<200	--	22000	
1/7/2004	80.67	7.27	0.00	73.40	2.62	--	ND<20000	ND<200	460	ND<200	540	--	19000	
4/2/2004	80.67	8.09	0.00	72.58	-0.82	--	3400	ND<20	ND<20	ND<20	ND<40	--	5100	
7/29/2004	80.67	9.40	0.00	71.27	-1.31	--	7400	ND<50	ND<50	ND<50	ND<100	--	11000	
<b>MW-8 (Screen Interval in feet: 5.0-25.0)</b>														
6/18/1999	80.96	9.10	0.00	71.86	--	ND	--	ND	ND	ND	ND	290	160	
1/21/2000	80.96	10.00	0.00	70.96	-0.90	ND	--	ND	ND	ND	1.09	224	221	
7/10/2000	80.96	7.94	0.00	73.02	2.06	ND	--	ND	ND	ND	ND	234	223	
1/4/2001	80.96	9.76	0.00	71.20	-1.82	3790	--	141	8.92	128	375	--	34200	
7/16/2001	80.96	9.15	0.00	71.81	0.61	ND	--	ND	ND	ND	ND	66	70	
1/31/2002	80.96	7.99	0.00	72.97	1.16	5900	--	86	ND<10	630	390	670	700	
4/11/2002	81.71	9.00	0.00	72.71	-0.26	250	--	2.0	ND<0.50	38	2.2	410	--	
7/11/2002	81.71	9.60	0.00	72.11	-0.60	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
10/15/2002	81.71	10.60	0.00	71.11	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	

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**November 1992 Through July 2004**  
**76 Station 1871**

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-8 continued</b>														
1/14/2003	81.71	8.63	0.00	73.08	1.97	--	ND<250	2.6	ND<2.5	18	ND<5.0	--	430	
4/16/2003	81.71	8.98	0.00	72.73	-0.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	18	
7/16/2003	81.71	9.63	0.00	72.08	-0.65	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	140	
10/2/2003	81.71	10.41	0.00	71.30	-0.78	--	75	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	78	
1/7/2004	81.71	8.21	0.00	73.50	2.20	--	ND<5000	ND<50	ND<50	ND<50	340	--	3700	
4/2/2004	81.71	8.51	0.00	73.20	-0.30	--	3000	ND<20	ND<20	ND<20	ND<40	--	5200	
7/29/2004	81.71	9.78	0.00	71.93	-1.27	--	3200	ND<25	ND<25	ND<25	ND<50	--	5500	
<b>MW-9 (Screen Interval in feet: DNA)</b>														
1/31/2002	82.07	14.72	0.00	67.35	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	680	910	
4/11/2002	82.07	14.85	0.00	67.22	-0.13	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	620	--	
7/11/2002	82.07	15.39	0.00	66.68	-0.54	--	580	ND<5.0	ND<5.0	ND<5.0	ND<10	--	580	
10/15/2002	82.07	16.16	0.00	65.91	-0.77	--	570	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1400	
1/14/2003	82.07	14.75	0.00	67.32	1.41	--	ND<200	ND<2.0	ND<2.0	ND<2.0	ND<4.0	--	220	
4/16/2003	82.07	14.51	0.00	67.56	0.24	--	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10	--	860	
7/16/2003	82.07	15.54	0.00	66.53	-1.03	--	ND<2500	ND<25	ND<25	ND<25	ND<50	--	1300	
10/2/2003	82.07	16.28	0.00	65.79	-0.74	--	820	ND<5.0	ND<5.0	ND<5.0	ND<10	--	990	
1/7/2004	82.07	14.65	0.00	67.42	1.63	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1200	
4/2/2004	82.07	15.08	0.00	66.99	-0.43	--	510	ND<5.0	ND<5.0	ND<5.0	ND<10	--	850	
7/29/2004	82.07	15.81	0.00	66.26	-0.73	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1300	
<b>MW-10 (Screen Interval in feet: DNA)</b>														
1/31/2002	74.98	8.02	0.00	66.96	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	1.2	
4/11/2002	74.98	7.60	0.00	67.38	0.42	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/2002	74.98	8.91	0.00	66.07	-1.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.1	
10/15/2002	74.98	11.49	0.00	63.49	-2.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	

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**November 1992 Through July 2004**  
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MW-10 continued														
1/14/2003	74.98	8.47	0.00	66.51	3.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/16/2003	74.98	7.92	0.00	67.06	0.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/16/2003	74.98	7.03	0.00	67.95	0.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/2003	74.98	7.63	0.00	67.35	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/7/2004	74.98	6.22	0.00	68.76	1.41	--	54	ND<0.50	ND<0.50	1.3	4.5	--	ND<2.0	
4/2/2004	74.98	7.49	0.00	67.49	-1.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.0	
7/29/2004	74.98	7.41	0.00	67.57	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
MW-11 (Screen Interval in feet: DNA)														
1/31/2002	77.31	11.71	0.00	65.60	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<1.0	
4/11/2002	77.31	11.95	0.00	65.36	-0.24	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/2002	77.31	12.79	0.00	64.52	-0.84	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/15/2002	77.31	13.67	0.00	63.64	-0.88	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/14/2003	77.31	13.31	0.00	64.00	0.36	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/16/2003	77.31	14.08	0.00	63.23	-0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/16/2003	77.31	12.98	0.00	64.33	1.10	--	65	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/2003	77.31	12.96	0.00	64.35	0.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/7/2004	77.31	16.20	0.00	61.11	-3.24	--	63	ND<0.50	ND<0.50	0.68	2.2	--	ND<2.0	
4/2/2004	77.31	18.01	0.00	59.30	-1.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/29/2004	77.31	14.39	0.00	62.92	3.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 3**  
**ADDITIONAL ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	EDB (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)	H- Alkalinity (mg/l)
<b>MW-1</b>										
6/18/1999	--	--	ND	ND	ND	ND	ND	ND	--	ND
7/16/2001	--	--	ND	ND	ND	ND	ND	ND	--	--
1/14/2003	--	--	ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--
7/16/2003	--	--	--	--	--	--	--	ND<10000	--	--
10/2/2003	--	--	--	--	--	--	--	--	ND<25000	--
1/7/2004	--	--	--	--	--	--	--	--	ND<20000	--
4/2/2004	--	--	--	--	--	--	--	--	ND<50	--
7/29/2004	--	--	--	--	--	--	--	--	ND<2000	--
<b>MW-4</b>										
4/18/1996	110	--	--	--	--	--	--	--	--	--
7/24/1996	ND	--	--	--	--	--	--	--	--	--
10/24/1996	ND	--	--	--	--	--	--	--	--	--
1/28/1997	210	--	--	--	--	--	--	--	--	--
7/29/1997	ND	--	--	--	--	--	--	--	--	--
1/14/1998	ND	--	--	--	--	--	--	--	--	--
7/1/1998	ND	--	--	--	--	--	--	--	--	--
<b>MW-6</b>										
6/18/1999	--	ND	ND	ND	ND	ND	ND	ND	--	--
7/16/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--
7/11/2002	--	ND<100	ND<100	ND<100	ND<1000	ND<200	ND<100	ND<5000	--	--
1/14/2003	--	ND<2.0	ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--
7/16/2003	--	--	--	--	--	--	--	ND<500	--	--
10/2/2003	--	--	--	--	--	--	--	--	ND<1000	--
1/7/2004	--	--	--	--	--	--	--	--	ND<1000	--
4/2/2004	--	--	--	--	--	--	--	--	ND<2000	--
7/29/2004	--	--	--	--	--	--	--	--	ND<100	--



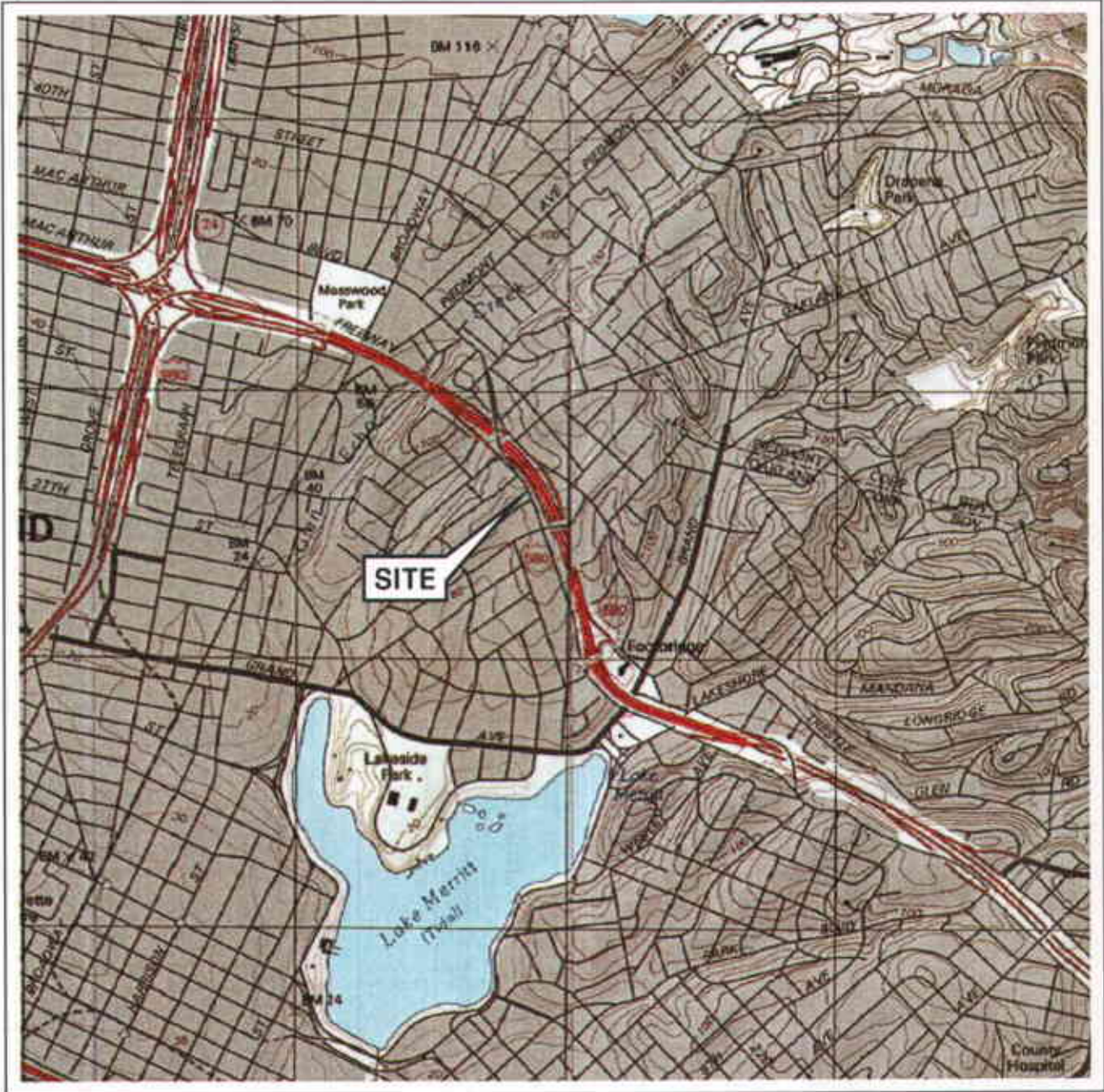
**Table 3**  
**ADDITIONAL ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	EDB (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)	H- Alkalinity (mg/l)
<b>MW-7</b>										
6/18/1999	--	ND	ND	ND	ND	ND	ND	ND	--	--
7/16/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--
1/14/2003	--	ND<1000	ND<1000	ND<1000	ND<50000	ND<1000	ND<1000	ND<250000	--	--
7/16/2003	--	--	--	--	--	--	--	ND<250000	--	--
10/2/2003	--	--	--	--	--	--	--	--	ND<100000	--
1/7/2004	--	--	--	--	--	--	--	--	ND<200000	--
4/2/2004	--	--	--	--	--	--	--	--	ND<2000	--
7/29/2004	--	--	--	--	--	--	--	--	ND<5000	--
<b>MW-8</b>										
6/18/1999	--	ND	ND	ND	ND	ND	ND	ND	--	--
7/16/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--
1/14/2003	--	ND<10	ND<10	ND<10	ND<500	ND<10	ND<10	ND<2500	--	--
7/16/2003	--	--	--	--	--	--	--	ND<500	--	--
10/2/2003	--	--	--	--	--	--	--	--	ND<500	--
1/7/2004	--	--	--	--	--	--	--	--	ND<50000	--
4/2/2004	--	--	--	--	--	--	--	--	ND<2000	--
7/29/2004	--	--	--	--	--	--	--	--	ND<2500	--
<b>MW-9</b>										
10/2/2003	--	--	--	--	--	--	--	--	ND<5000	--
1/7/2004	--	--	--	--	--	--	--	--	ND<10000	--
4/2/2004	--	--	--	--	--	--	--	--	ND<500	--
7/29/2004	--	--	--	--	--	--	--	--	ND<1000	--
<b>MW-10</b>										
1/31/2002	--	ND<7.1	ND<7.1	ND<7.1	ND<140	ND<7.1	ND<7.1	ND<3600	--	--
1/14/2003	--	ND<8.0	ND<8.0	ND<8.0	ND<400	ND<8.0	ND<8.0	ND<2000	--	--

**Table 3**  
**ADDITIONAL ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	EDB (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)	H- Alkalinity (mg/l)
<b>MW-10 continued</b>										
7/16/2003	--	--	--	--	--	--	--	ND<25000	--	--
10/2/2003	--	--	--	--	--	--	--	--	ND<500	--
1/7/2004	--	--	--	--	--	--	--	--	ND<500	--
4/2/2004	--	--	--	--	--	--	--	--	ND<50	--
7/29/2004	--	--	--	--	--	--	--	--	ND<50	--
<b>MW-11</b>										
10/2/2003	--	--	--	--	--	--	--	--	ND<500	--
1/7/2004	--	--	--	--	--	--	--	--	ND<500	--
4/2/2004	--	--	--	--	--	--	--	--	ND<50	--
7/29/2004	--	--	--	--	--	--	--	--	ND<50	--

# FIGURES



0 1/4 1/2 3/4 1 MILE



SCALE 1:24,000



QUADRANGLE LOCATION

**VICINITY MAP**

76 Station 1871  
 96 MacArthur Boulevard  
 Oakland, California

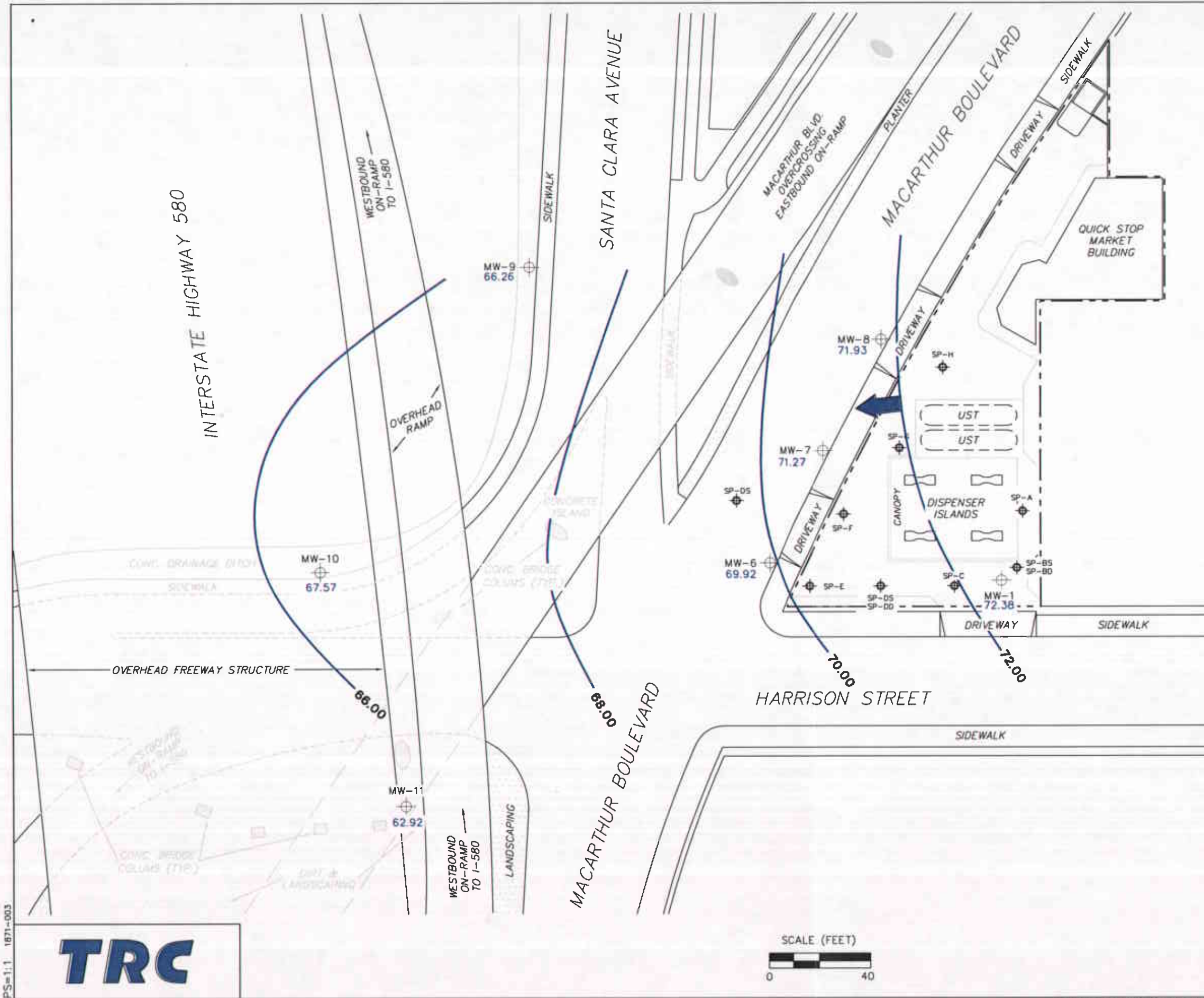
**SOURCE:**

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

**FIGURE 1**

PS = 1:1

**TRC**



**LEGEND**

- MW-11 Monitoring Well with Groundwater Elevation (feet)
- SP-H Ozone Sparge Well
- 72.00 Groundwater Elevation Contour
- General Direction of Groundwater Flow

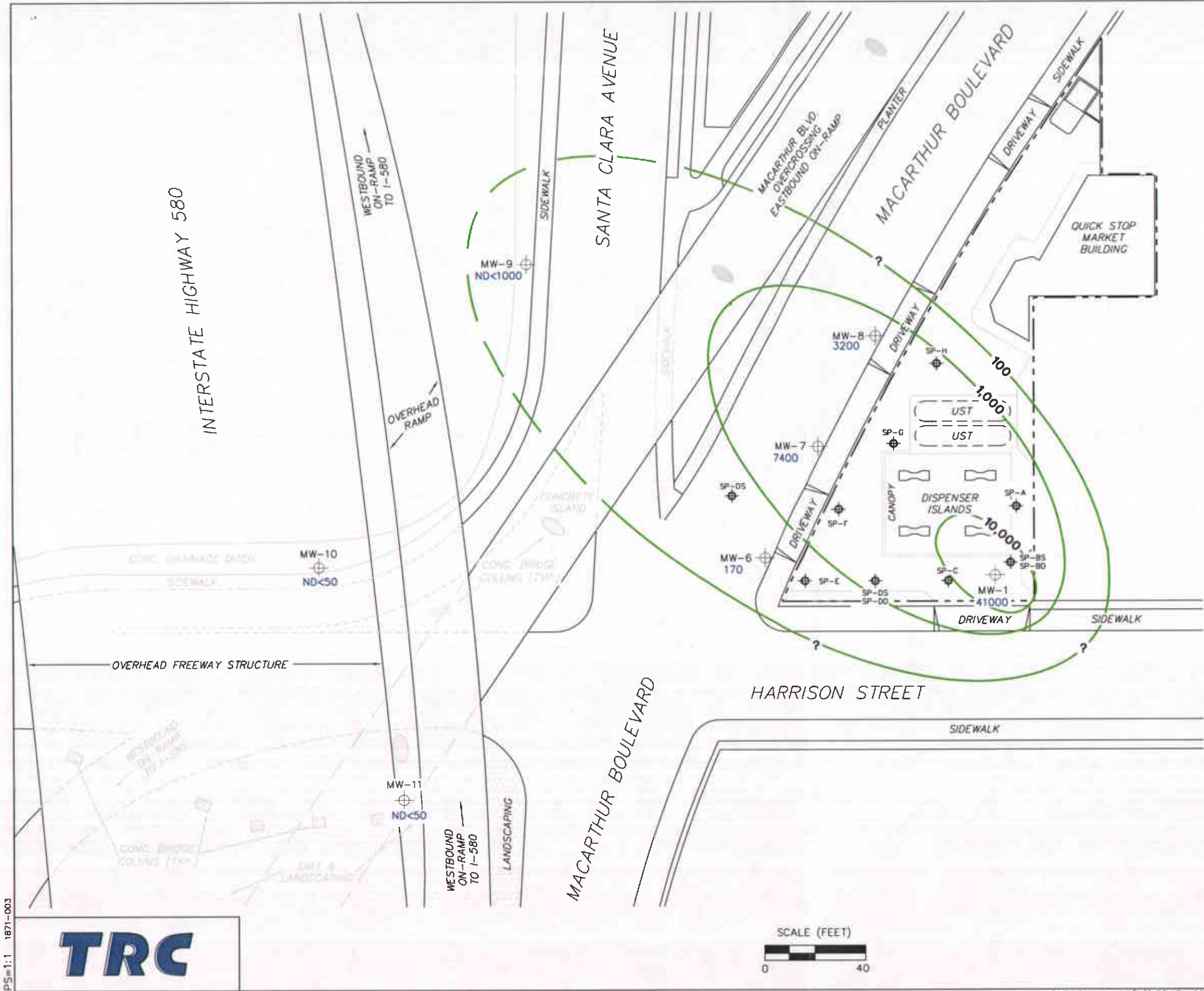
**NOTES:**  
 Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank.

**GROUNDWATER ELEVATION CONTOUR MAP**  
 July 29, 2004

76 Station 1871  
 96 MacArthur Boulevard  
 Oakland, California

**FIGURE 2**





**LEGEND**

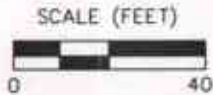
- MW-11 ⊕ Monitoring Well with Dissolved-Phase TPH Concentration ( $\mu\text{g/l}$ )
- SP-H ⊕ Ozone Sparge Well
- 10,000- Dissolved-Phase TPH Contour ( $\mu\text{g/l}$ )

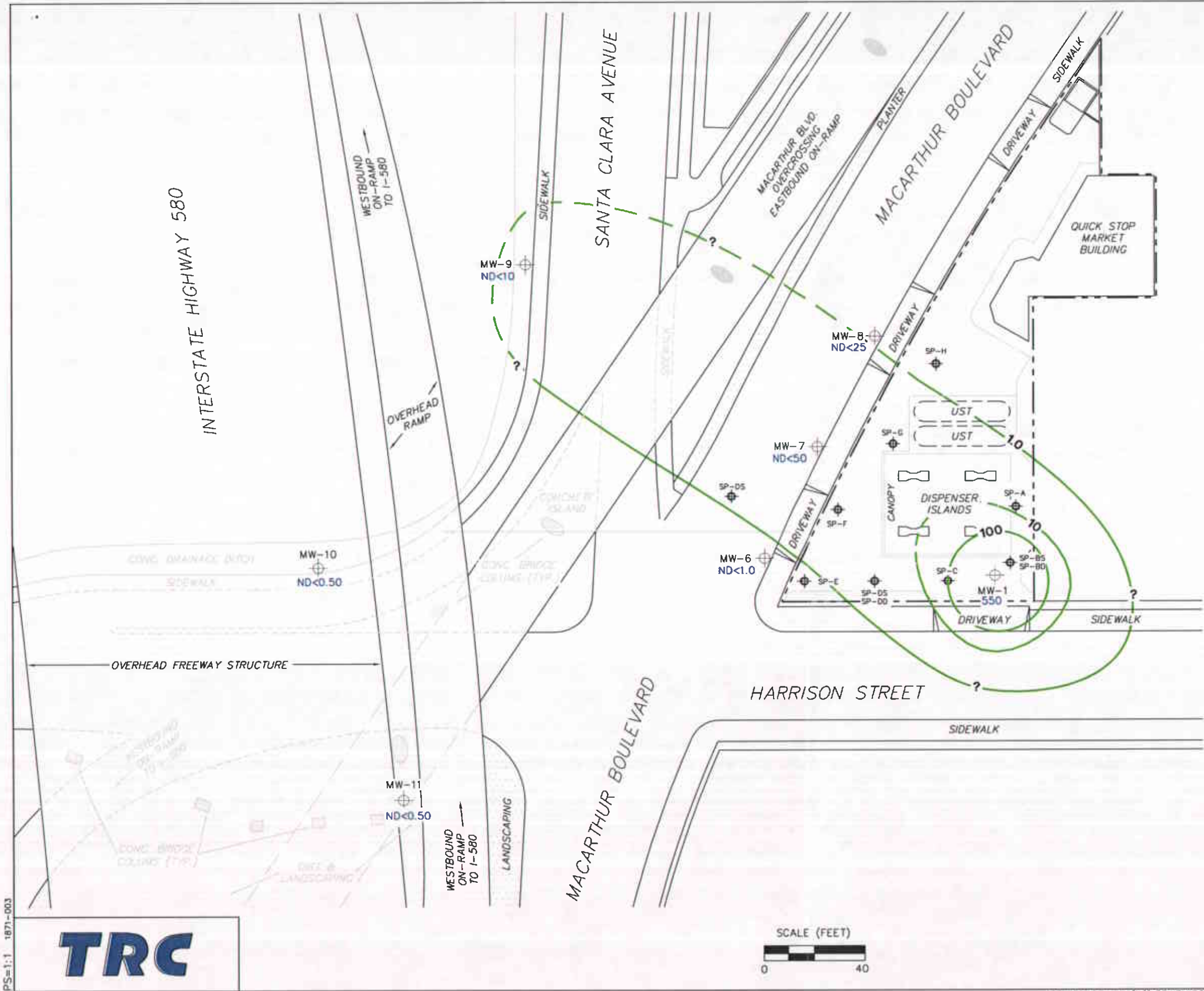
**NOTES:**  
 Contour lines are interpretive and based on laboratory analysis results of groundwater samples. TPH = total purgeable petroleum hydrocarbons.  $\mu\text{g/l}$  = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B. Dashes indicate contour based on non-detect at elevated detection limit.

**DISSOLVED-PHASE TPH CONCENTRATION MAP**  
 July 29, 2004

76 Station 1871  
 96 MacArthur Boulevard  
 Oakland, California

**FIGURE 3**





**LEGEND**

- MW-11 ⊕ Monitoring Well with Dissolved-Phase Benzene Concentration ( $\mu\text{g/l}$ )
- SP-H ⊕ Ozone Sparge Well
- 100 - - - Dissolved-Phase Benzene Contour ( $\mu\text{g/l}$ )

**NOTES:**

$\mu\text{g/l}$  = micrograms per liter. ND = not detected at limit indicated on official laboratory report.  
 UST = underground storage tank. Dashed line indicates contour based on non-detect at elevated detection limit.

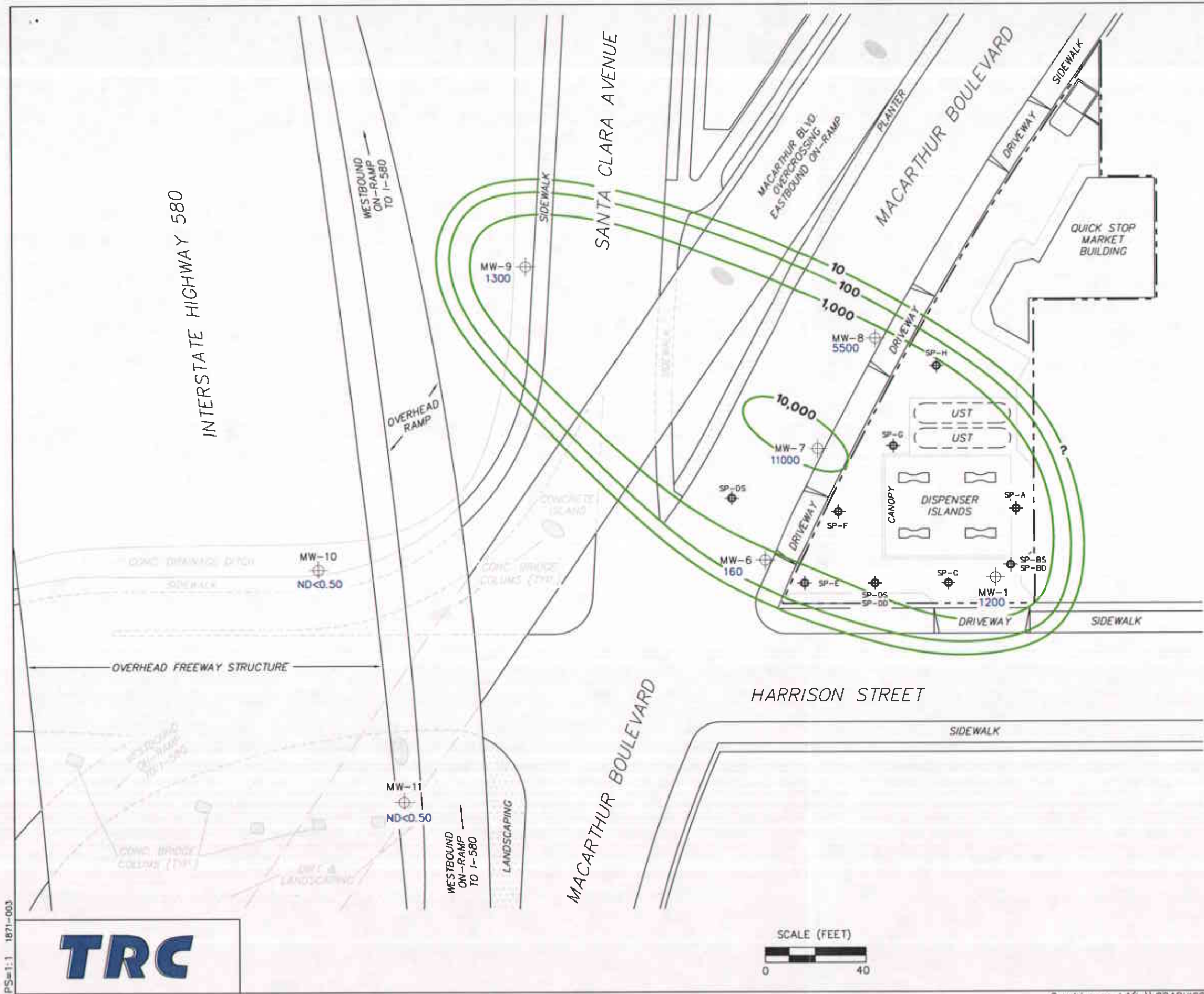
**DISSOLVED-PHASE BENZENE CONCENTRATION MAP**  
**July 29, 2004**

76 Station 1871  
 96 MacArthur Boulevard  
 Oakland, California

**FIGURE 4**



PS=1:1 1871-003



**LEGEND**

- MW-11 ⊕ Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l)
- SP-H ⊕ Ozone Sparge Well
- 10,000- Dissolved-Phase MTBE Contour (µg/l)

**NOTES:**  
 Contour lines are interpretive and based on laboratory analysis results of groundwater samples. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.

**DISSOLVED-PHASE MTBE CONCENTRATION MAP**  
 July 29, 2004

76 Station 1871  
 96 MacArthur Boulevard  
 Oakland, California

**FIGURE 5**

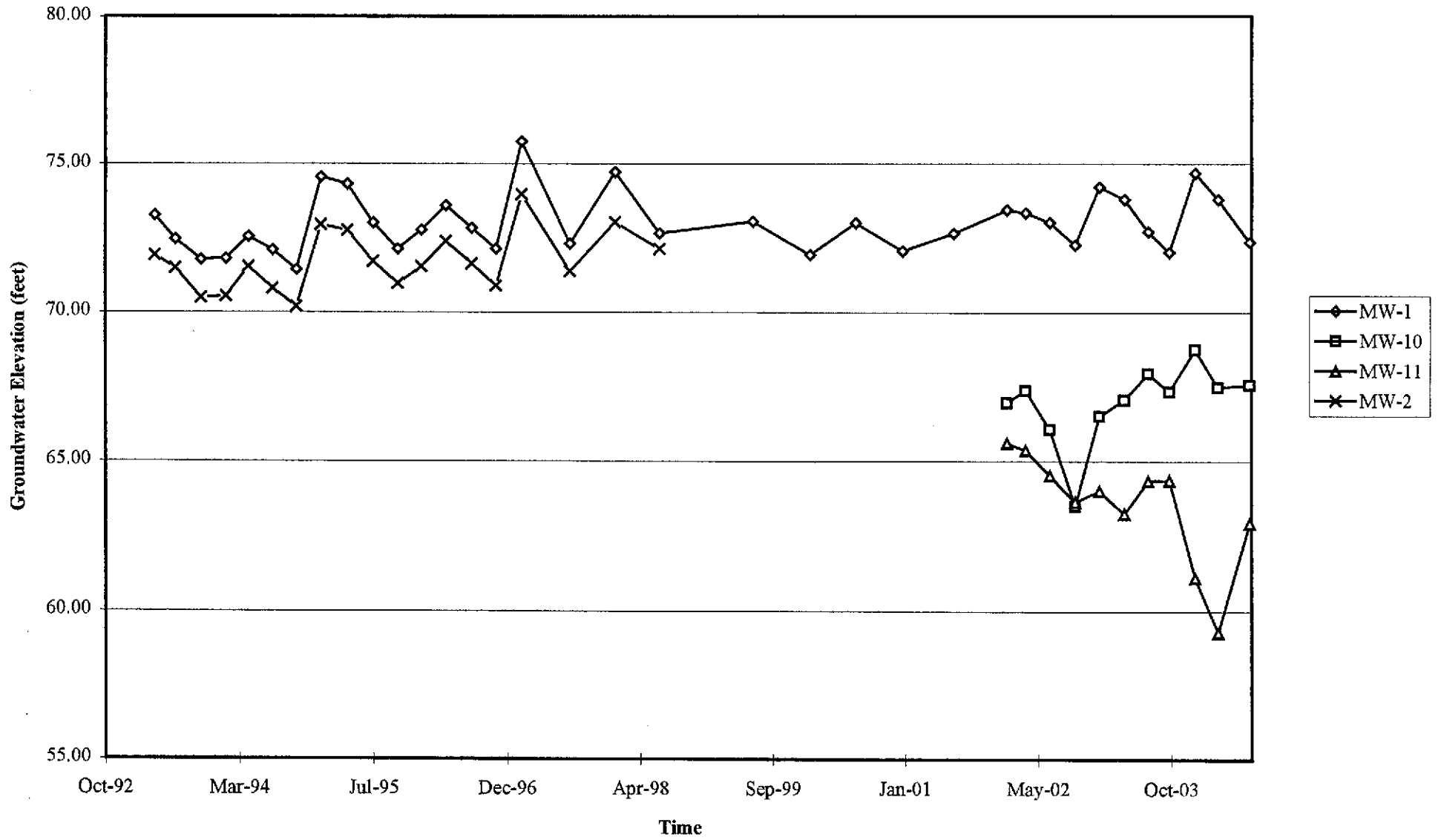


PS=1:1 1871-003

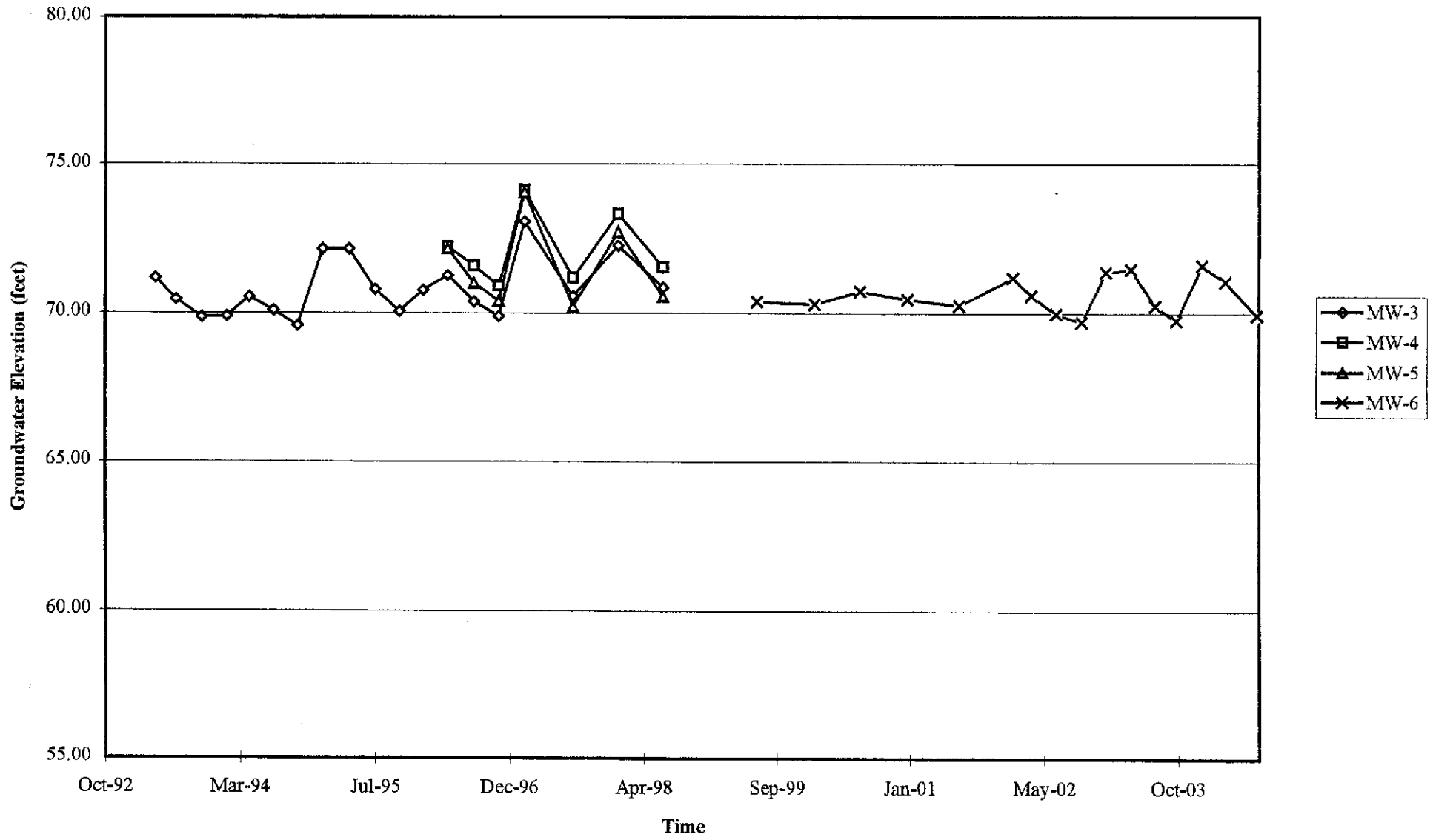


# GRAPHS

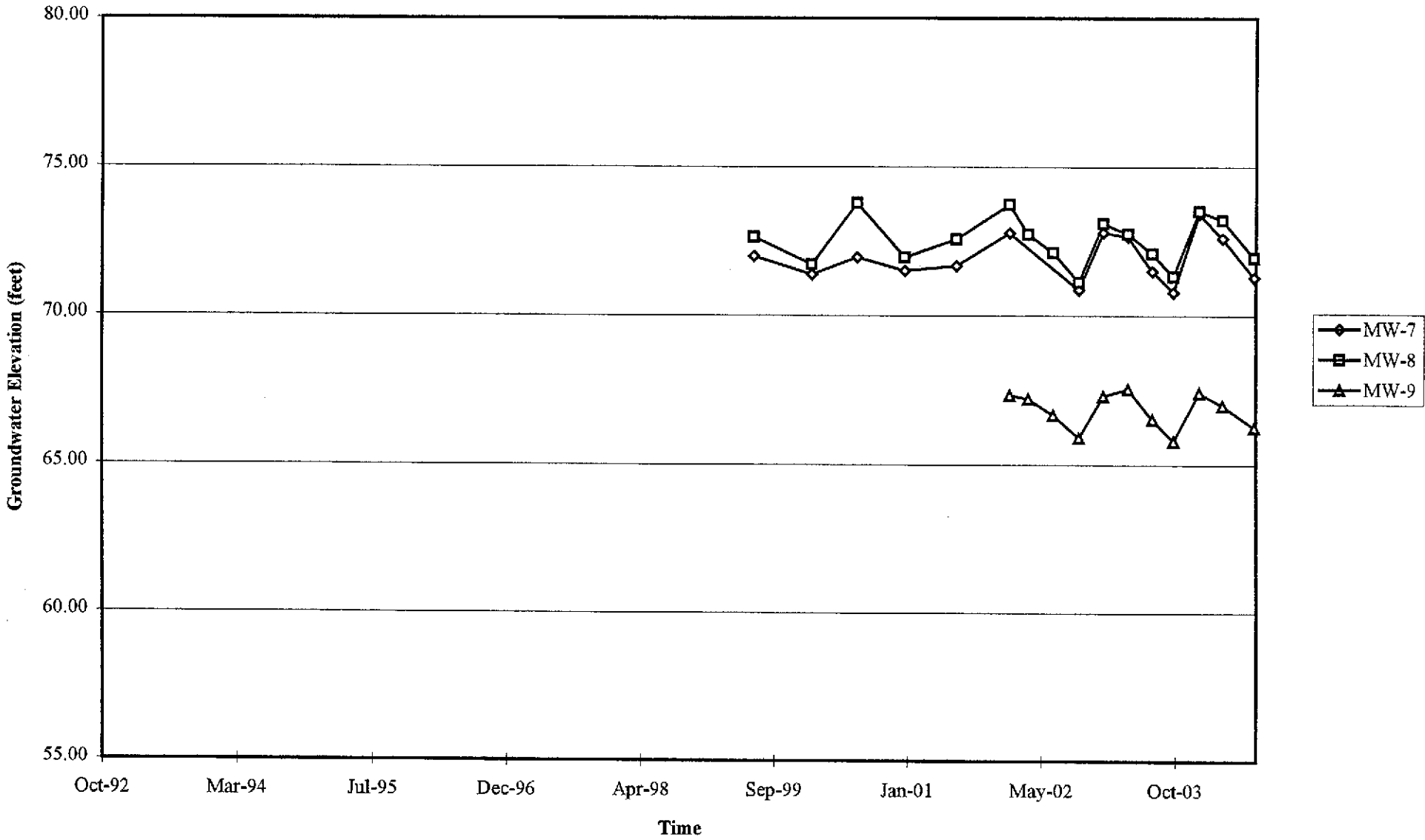
Groundwater Elevations vs. Time  
76 Station 1871



Groundwater Elevations vs. Time  
76 Station 1871

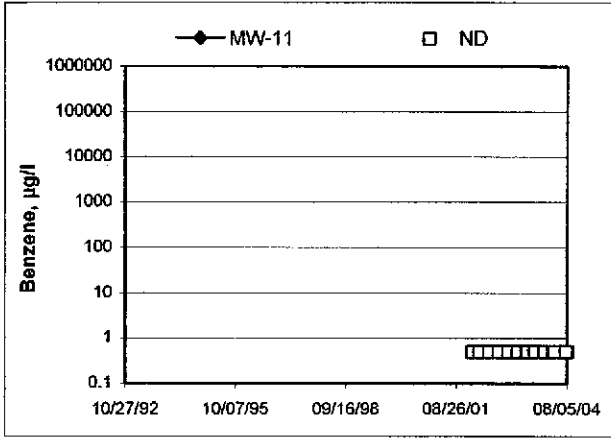
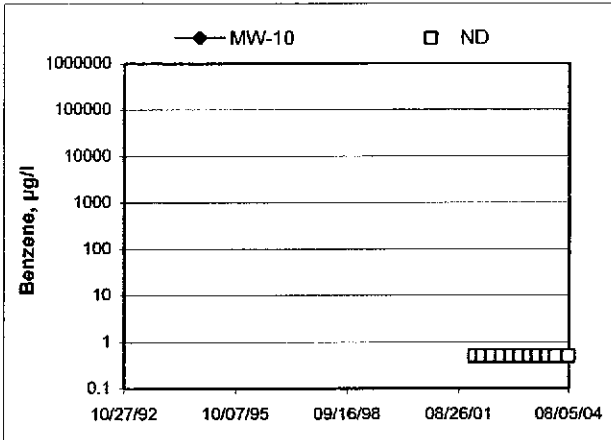
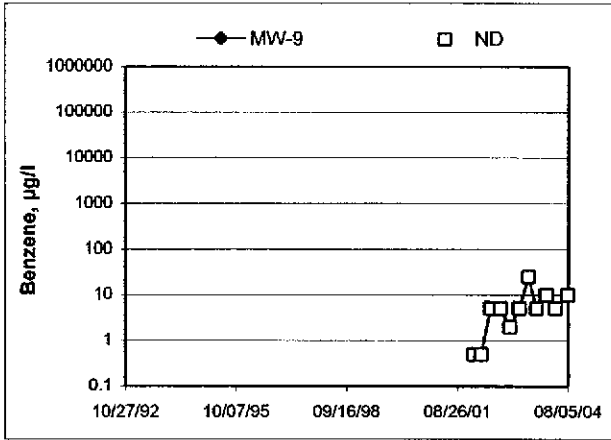


Groundwater Elevations vs. Time  
76 Station 1871





Benzene Concentrations vs Time  
76 Station 1871



## 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: J. KEARNS

Job #/Task #: 41050001

Date: 7/29/04

Site # 1871

Project Manager BARBARA MOED

Page 1 of 1

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-11	✓	1049	30.05	14.39	∅	∅	1309	2"
MW-10	✓	1017	19.72	7.41	∅	∅	1323	2"
MW-1	✓	0945	23.98	14.61	∅	∅	1410	4"
MW-9	✓	1011	19.85	15.81	∅	∅	1136	2"
MW-7	✓	055	24.30	9.40	∅	∅	1356	2"
MW-8	✓	0957	24.27	9.78	∅	∅	1105	2"
MW-6	✓	1000	24.49	9.75	∅	∅	1348	2"
FIELD DATA COMPLETE ✓		QA/QC ✓		COC ✓		WELL BOX CONDITION SHEETS ✓		
WTT CERTIFICATE ✓		MANIFEST ✓		DRUM INVENTORY ✓		TRAFFIC CONTROL ✓		



## GROUNDWATER SAMPLING FIELD NOTES

Technician: J. KEARNS

Date: 7/29/04

Site: 1871

Project No.: 41050001

Well No.: MW-4

Purge Method: DIA

Depth to Water (feet): 14.31

Depth to Product (feet): 0

Total Depth (feet): 30.05

LPH & Water Recovered (gallons): 0

Water Column (feet): 15.44

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 17.52

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. $\text{\textcircled{C}}$ )	pH	Turbidity ORP	D.O.
1058			2	773	17.1	7.10	250	7.13
			4	765	16.9	7.13	245	7.02
	1102		6	764	16.7	7.12	230	7.11
Static at Time Sampled		Total Gallons Purged			Time Sampled			
17.47		6			1309			
Comments:								

Well No.: MW-9

Purge Method: H-B

Depth to Water (feet): 15.81

Depth to Product (feet): 0

Total Depth (feet): 19.85

LPH & Water Recovered (gallons): 0

Water Column (feet): 4.04

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 16.62

1 Well Volume (gallons): 1

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. $\text{\textcircled{C}}$ )	pH	Turbidity ORP	D.O.
1122			1	518	17.7	6.59	75	5.54
			2	500	17.8	6.58	67	5.18
	1130		3	506	17.7	6.55	74	5.13
Static at Time Sampled		Total Gallons Purged			Time Sampled			
16.60		3			1136			
Comments:								

## GROUNDWATER SAMPLING FIELD NOTES

Technician: J. KEARNS  
 Site: 1871 Project No.: 4105009 Date: 7/29/04  
 Well No.: MW-10 Purge Method: DIA  
 Depth to Water (feet): 7.41 Depth to Product (feet): 0  
 Total Depth (feet): 19.72 LPH & Water Recovered (gallons): 0  
 Water Column (feet): 12.31 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 9.87 1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH	Turbidity <small>CFP</small>	D.O.
1149			2	497	17.2	7.07	83	4.83
			4	489	16.9	7.19	90	4.79
	1153		6	486	16.9	7.12	102	4.81
Static at Time Sampled			Total Gallons Purged		Time Sampled			
9.85			6		1123			
Comments:								

Well No.: MW-1 Purge Method: DIA  
 Depth to Water (feet): 14.61 Depth to Product (feet): 6  
 Total Depth (feet): 23.98 LPH & Water Recovered (gallons): 6  
 Water Column (feet): 9.57 Casing Diameter (Inches): 4"  
 80% Recharge Depth (feet): 6.18 1 Well Volume (gallons): 6

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH	Turbidity	D.O.
1206			6	431	20.9	6.83	-2	5.57
	1213		12	512	20.7	6.69	-4	5.37
			18					
Static at Time Sampled			Total Gallons Purged		Time Sampled			
20.19			12		1110			
Comments: <u>Dry @ 12 gal. Didn't recover in 45 min, or 2 hrs.</u>								

## GROUNDWATER SAMPLING FIELD NOTES

Technician: J. KEARNS

Site: 1871

Project No.: 41050001

Date: 7/29/04

Well No.: MW-6

Purge Method: DIA

Depth to Water (feet): 9.75

Depth to Product (feet): 0

Total Depth (feet): 24.49

LPH & Water Recovered (gallons): 0

Water Column (feet): 14.74

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 12.70

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F/C)	pH	Turbidity <del>OFF</del>	D.O.
1224			2	584	20.6	6.85	19	4.79
			4	593	21.0	6.89	14	4.69
	1227		6	599	20.7	6.96	8	4.74
Static at Time Sampled			Total Gallons Purged		Time Sampled			
11:57			6		1348			
Comments:								

Well No.: MW-7

Purge Method: DIA

Depth to Water (feet): 9.40

Depth to Product (feet): 0

Total Depth (feet): 24.50

LPH & Water Recovered (gallons): 0

Water Column (feet): 14.90

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 12.38

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F/C)	pH	Turbidity <del>OFF</del>	D.O.
1238			2	542	20.7	6.79	17	3.96
			4	537	20.6	6.85	17	4.12
	1241		6	536	20.5	6.83	18	4.10
Static at Time Sampled			Total Gallons Purged		Time Sampled			
10:41			6		1356			
Comments:								

## GROUNDWATER SAMPLING FIELD NOTES

Technician: J. KEARNS

Site: 1871

Project No.: 41050001

Date: 7/29/04

Well No.: Mw-8

Purge Method: DIA

Depth to Water (feet): 9.78

Depth to Product (feet): 0

Total Depth (feet): 24.27

LPH & Water Recovered (gallons): 0

Water Column (feet): 14.49

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 12.68

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temperature (F, C)	pH	Turbidity DRP	D.O.
1249			2	509	21.2	6.75	18	3.73
			4	516	20.4	6.79	24	3.64
	1252		6	521	20.5	6.79	30	3.68
Static at Time Sampled			Total Gallons Purged			Time Sampled		
10:32			6			1405		
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)	Conduc-tivity (uS/cm)	Temperature (F, C)	pH	Turbidity	D.O.
Static at Time Sampled			Total Gallons Purged			Time Sampled		
Comments:								

TRC Alton Geoscience- Irvine

August 13, 2004

21 Technology Drive  
Irvine, CA 92718

Attn.: Anju Farfan

Project#: 41050001FA20  
Project: Conoco Phillips # 1871  
Site: 96 MacArthur, Oakland

Attached is our report for your samples received on 07/30/2004 09:40  
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  
09/13/2004 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

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

TRC Alton Geoscience- Irvine  
Attn.: Anju Farfan

21 Technology Drive  
Irvine, CA 92718  
Phone: (949) 341-7440 Fax: (949) 753-0111  
Project: 41050001FA20  
Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-11	07/29/2004 13:09	Water	1
MW-10	07/29/2004 13:23	Water	2
MW-1	07/29/2004 14:10	Water	3
MW-9	07/29/2004 11:36	Water	4
MW-7	07/29/2004 13:56	Water	5
MW-8	07/29/2004 14:05	Water	6
MW-6	07/29/2004 13:48	Water	7

Severn Trent Laboratories, Inc.

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

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

08/12/2004 11:46

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

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-11	Lab ID:	2004-07-0901 - 1
Sampled:	07/29/2004 13:09	Extracted:	8/9/2004 08:07
Matrix:	Water	QC Batch#:	2004/08/09-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/09/2004 08:07	
Benzene	ND	0.50	ug/L	1.00	08/09/2004 08:07	
Toluene	ND	0.50	ug/L	1.00	08/09/2004 08:07	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2004 08:07	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2004 08:07	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	08/09/2004 08:07	
Ethanol	ND	50	ug/L	1.00	08/09/2004 08:07	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	123.7	72-128	%	1.00	08/09/2004 08:07	
Toluene-d8	108.0	80-113	%	1.00	08/09/2004 08:07	

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

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-10	Lab ID: 2004-07-0901 - 2
Sampled: 07/29/2004 13:23	Extracted: 8/9/2004 08:30
Matrix: Water	QC Batch#: 2004/08/09-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/09/2004 08:30	
Benzene	ND	0.50	ug/L	1.00	08/09/2004 08:30	
Toluene	ND	0.50	ug/L	1.00	08/09/2004 08:30	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2004 08:30	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2004 08:30	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	08/09/2004 08:30	
Ethanol	ND	50	ug/L	1.00	08/09/2004 08:30	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	119.5	72-128	%	1.00	08/09/2004 08:30	
Toluene-d8	107.1	80-113	%	1.00	08/09/2004 08:30	

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

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-1

Lab ID: 2004-07-0901 - 3

Sampled: 07/29/2004 14:10

Extracted: 8/9/2004 09:37

Matrix: Water

QC Batch#: 2004/08/09-1B.64

Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	41000	2000	ug/L	40.00	08/09/2004 09:37	
Benzene	550	20	ug/L	40.00	08/09/2004 09:37	
Toluene	ND	20	ug/L	40.00	08/09/2004 09:37	
Ethylbenzene	2000	20	ug/L	40.00	08/09/2004 09:37	
Total xylenes	6100	40	ug/L	40.00	08/09/2004 09:37	
Methyl tert-butyl ether (MTBE)	1200	20	ug/L	40.00	08/09/2004 09:37	
Ethanol	ND	2000	ug/L	40.00	08/09/2004 09:37	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	118.7	72-128	%	40.00	08/09/2004 09:37	
Toluene-d8	104.4	80-113	%	40.00	08/09/2004 09:37	

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

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21 Technology Drive

Irvine, CA 92718

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-9	Lab ID:	2004-07-0901 - 4
Sampled:	07/29/2004 11:36	Extracted:	8/9/2004 09:59
Matrix:	Water	QC Batch#:	2004/08/09-1B.64

Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/L	20.00	08/09/2004 09:59	
Benzene	ND	10	ug/L	20.00	08/09/2004 09:59	
Toluene	ND	10	ug/L	20.00	08/09/2004 09:59	
Ethylbenzene	ND	10	ug/L	20.00	08/09/2004 09:59	
Total xylenes	ND	20	ug/L	20.00	08/09/2004 09:59	
Methyl tert-butyl ether (MTBE)	1300	10	ug/L	20.00	08/09/2004 09:59	
Ethanol	ND	1000	ug/L	20.00	08/09/2004 09:59	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	114.7	72-128	%	20.00	08/09/2004 09:59	
Toluene-d8	107.1	80-113	%	20.00	08/09/2004 09:59	

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

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s): 5030B Test(s): 8260FAB  
 Sample ID: MW-7 Lab ID: 2004-07-0901 - 5  
 Sampled: 07/29/2004 13:56 Extracted: 8/9/2004 19:38  
 Matrix: Water QC Batch#: 2004/08/09-2A.64  
 Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	7400	5000	ug/L	100.00	08/09/2004 19:38	g
Benzene	ND	50	ug/L	100.00	08/09/2004 19:38	
Toluene	ND	50	ug/L	100.00	08/09/2004 19:38	
Ethylbenzene	ND	50	ug/L	100.00	08/09/2004 19:38	
Total xylenes	ND	100	ug/L	100.00	08/09/2004 19:38	
Methyl tert-butyl ether (MTBE)	11000	50	ug/L	100.00	08/09/2004 19:38	
Ethanol	ND	5000	ug/L	100.00	08/09/2004 19:38	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	115.8	72-128	%	100.00	08/09/2004 19:38	
Toluene-d8	107.3	80-113	%	100.00	08/09/2004 19:38	

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

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-8	Lab ID: 2004-07-0901 - 6
Sampled: 07/29/2004 14:05	Extracted: 8/10/2004 21:18
Matrix: Water	QC Batch#: 2004/08/10-2A.65
Analysis Flag: o ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3200	2500	ug/L	50.00	08/10/2004 21:18	g
Benzene	ND	25	ug/L	50.00	08/10/2004 21:18	
Toluene	ND	25	ug/L	50.00	08/10/2004 21:18	
Ethylbenzene	ND	25	ug/L	50.00	08/10/2004 21:18	
Total xylenes	ND	50	ug/L	50.00	08/10/2004 21:18	
Methyl tert-butyl ether (MTBE)	5500	25	ug/L	50.00	08/10/2004 21:18	
Ethanol	ND	2500	ug/L	50.00	08/10/2004 21:18	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	120.7	72-128	%	50.00	08/10/2004 21:18	
Toluene-d8	100.0	80-113	%	50.00	08/10/2004 21:18	

**Gas/BTEX Fuel Oxygenates by 8260B**TRC Alton Geoscience- Irvine  
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Irvine, CA 92718  
Phone: (949) 341-7440 Fax: (949) 753-0111Project: 41050001FA20  
Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: <b>MW-6</b>	Lab ID: 2004-07-0901 - 7
Sampled: 07/29/2004 13:48	Extracted: 8/9/2004 11:50
Matrix: Water	QC Batch#: 2004/08/09-1B.64
Analysis Flag: o ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	170	100	ug/L	2.00	08/09/2004 11:50	g
Benzene	ND	1.0	ug/L	2.00	08/09/2004 11:50	
Toluene	ND	1.0	ug/L	2.00	08/09/2004 11:50	
Ethylbenzene	ND	1.0	ug/L	2.00	08/09/2004 11:50	
Total xylenes	ND	2.0	ug/L	2.00	08/09/2004 11:50	
Methyl tert-butyl ether (MTBE)	160	1.0	ug/L	2.00	08/09/2004 11:50	
Ethanol	ND	100	ug/L	2.00	08/09/2004 11:50	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	119.1	72-128	%	2.00	08/09/2004 11:50	
Toluene-d8	103.8	80-113	%	2.00	08/09/2004 11:50	

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08/12/2004 11:46

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

TRC Alton Geoscience- Irvine

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Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/08/09-1B.64-032

Water

Test(s): 8260FAB

QC Batch # 2004/08/09-1B.64

Date Extracted: 08/09/2004 07:32

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/09/2004 07:32	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	08/09/2004 07:32	
Benzene	ND	0.5	ug/L	08/09/2004 07:32	
Toluene	ND	0.5	ug/L	08/09/2004 07:32	
Ethylbenzene	ND	0.5	ug/L	08/09/2004 07:32	
Total xylenes	ND	1.0	ug/L	08/09/2004 07:32	
Ethanol	ND	50	ug/L	08/09/2004 07:32	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	102.4	72-128	%	08/09/2004 07:32	
Toluene-d8	102.6	80-113	%	08/09/2004 07:32	

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

TRC Alton Geoscience- Irvine

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/08/09-2A.64-034

Water

Test(s): 8260FAB

QC Batch # 2004/08/09-2A.64

Date Extracted: 08/09/2004 18:34

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/09/2004 18:34	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	08/09/2004 18:34	
Benzene	ND	0.5	ug/L	08/09/2004 18:34	
Toluene	ND	0.5	ug/L	08/09/2004 18:34	
Ethylbenzene	ND	0.5	ug/L	08/09/2004 18:34	
Total xylenes	ND	1.0	ug/L	08/09/2004 18:34	
Ethanol	ND	50	ug/L	08/09/2004 18:34	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	106.6	72-128	%	08/09/2004 18:34	
Toluene-d8	106.6	80-113	%	08/09/2004 18:34	



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

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Project: 41050001FA20  
Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/08/10-2A.65-055

Water

Test(s): 8260FAB

QC Batch # 2004/08/10-2A.65

Date Extracted: 08/10/2004 20:55

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/10/2004 20:55	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	08/10/2004 20:55	
Benzene	ND	0.5	ug/L	08/10/2004 20:55	
Toluene	ND	0.5	ug/L	08/10/2004 20:55	
Ethylbenzene	ND	0.5	ug/L	08/10/2004 20:55	
Total xylenes	ND	1.0	ug/L	08/10/2004 20:55	
Ethanol	ND	50	ug/L	08/10/2004 20:55	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	110.8	72-128	%	08/10/2004 20:55	
Toluene-d8	100.2	80-113	%	08/10/2004 20:55	

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

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Project: 41050001FA20  
Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/08/09-1B.64**

LCS 2004/08/09-1B.64-047

Extracted: 08/09/2004

Analyzed: 08/09/2004 06:47

LCSD 2004/08/09-1B.64-010

Extracted: 08/09/2004

Analyzed: 08/09/2004 07:10

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	26.4	26.9	25	105.6	107.6	1.9	65-165	20		
Benzene	24.6	24.0	25	98.4	96.0	2.5	69-129	20		
Toluene	26.0	26.3	25	104.0	105.2	1.1	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	501	510	500	100.2	102.0		72-128			
Toluene-d8	548	533	500	109.6	106.6		80-113			

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

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Project: 41050001FA20  
Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/08/09-2A.64**

LCS 2004/08/09-2A.64-049

Extracted: 08/09/2004

Analyzed: 08/09/2004 17:49

LCSD 2004/08/09-2A.64-011

Extracted: 08/09/2004

Analyzed: 08/09/2004 18:11

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %			Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	25.4	26.4	25	101.6	105.6	3.9	65-165	20			
Benzene	24.6	23.9	25	98.4	95.6	2.9	69-129	20			
Toluene	25.1	25.7	25	100.4	102.8	2.4	70-130	20			
<b>Surrogates(s)</b>											
1,2-Dichloroethane-d4	501	520	500	100.2	104.0		72-128				
Toluene-d8	534	525	500	106.8	105.0		80-113				

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

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

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Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2004/08/10-2A.65

LCS 2004/08/10-2A.65-008

Extracted: 08/10/2004

Analyzed: 08/10/2004 20:08

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	34.4		25	137.6			65-165	20		
Benzene	26.7		25	106.8			69-129	20		
Toluene	26.6		25	106.4			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	514		500	102.8			72-128			
Toluene-d8	539		500	107.8			80-113			

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Project: 41050001FA20  
Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/08/09-1B.64**

MW-10 >> MS

Lab ID: 2004-07-0901 - 002

MS: 2004/08/09-1B.64-048

Extracted: 08/09/2004

Analyzed: 08/09/2004 09:06

Dilution: 1.00

MSD: 2004/08/09-1B.64-049

Extracted: 08/09/2004

Analyzed: 08/09/2004 09:14

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	25.3	24.2	ND	25	101.2	96.8	4.4	69-129	20		
Toluene	26.8	25.2	ND	25	107.2	100.8	6.2	70-130	20		
Methyl tert-butyl ether	32.8	32.3	ND	25	131.2	129.2	1.5	65-165	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	565	615		500	113.0	123.0		72-128			
Toluene-d8	552	514		500	110.4	102.8		80-113			

Severn Trent Laboratories, Inc.

08/12/2004 11:46

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

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

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/08/10-2A.65**

S-1 >> MS

Lab ID: 2004-08-0064 - 001

MS: 2004/08/10-2A.65-002

Extracted: 08/11/2004

Analyzed: 08/11/2004 00:02

Dilution: 1.00

MSD: 2004/08/10-2A.65-027

Extracted: 08/11/2004

Analyzed: 08/11/2004 00:27

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	29.0	28.4	ND	25	116.0	113.6	2.1	69-129	20		
Toluene	27.2	28.2	ND	25	108.8	112.8	3.6	70-130	20		
Methyl tert-butyl ether	35.6	37.6	ND	25	142.4	150.4	5.5	65-165	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	562	569		500	112.4	113.8		72-128			
Toluene-d8	519	541		500	103.8	108.2		80-113			

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

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 1871

Received: 07/30/2004 09:40

Site: 96 MacArthur, Oakland

---

**Legend and Notes**

---

**Analysis Flag**

o

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

**Result Flag**

g

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

**STL San Francisco**

### Sample Receipt Checklist

**Submission #:** 2004- 07 - 0901

Checklist completed by: (initials) JM Date: 7/30/04

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

- |  |   |
|--|---|
| Custody seals intact on shipping container/samples         | Yes ___ No ___ Not Present <input checked="" type="checkbox"/>            |
| Chain of custody present?                                  | Yes <input checked="" type="checkbox"/> No ___                            |
| Chain of custody signed when relinquished and received?    | Yes <input checked="" type="checkbox"/> No ___                            |
| Chain of custody agrees with sample labels?                | Yes <input checked="" type="checkbox"/> No ___                            |
| Samples in proper container/bottle?                        | Yes <input checked="" type="checkbox"/> No ___                            |
| Sample containers intact?                                  | Yes <input checked="" type="checkbox"/> No ___                            |
| Sufficient sample volume for indicated test?               | Yes <input checked="" type="checkbox"/> No ___                            |
| All samples received within holding time?                  | Yes <input checked="" type="checkbox"/> No ___                            |
| Container/Temp Blank temperature in compliance (4° C ± 2)? | Temp: <u>6</u> °C Yes <input checked="" type="checkbox"/> No ___          |
|  | Ice Present Yes <input checked="" type="checkbox"/> No ___                |
| Water - VOA vials have zero headspace?                     | No VOA vials submitted ___ Yes <input checked="" type="checkbox"/> 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

# ConocoPhillips Chain Of Custody Record

88261

1220 Quarry Lane

Pleasanton, CA 94566

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

ConocoPhillips Site Manager:  
**INVOICE REMITTANCE ADDRESS:**  
**2004-07-0901**  
 CONOCOPHILLIPS  
 Attn: Dee Hutchinson  
 3611 South Harbor, Suite 200  
 Santa Ana, CA. 92704

ConocoPhillips Work Order Number  
**1120TRC500**  
 ConocoPhillips Cost Object

DATE: **7/29/04**  
 PAGE: **1** of **1**

SAMPLING COMPANY: <b>TRC</b>		Valid Value ID:	CONOCOPHILLIPS SITE NUMBER <b>1871</b>	GLOBAL ID NO.: <b>T0600101493</b>
ADDRESS: <b>21 Technology Drive, Irvine CA 92618</b>		SITE ADDRESS (Street and City): <b>96 MacArthur, Oakland</b>		CONOCOPHILLIPS SITE MANAGER: <b>THOMAS KOSEL</b>
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Anju Farfan</b>		EDF DELIVERABLE TO (RP or Designee): <b>Peter Thomson, TRC</b> pthomson@trcsolutions.com		PHONE NO.: <b>949-341-7408</b>
TELEPHONE: <b>949-341-7440</b>	FAX: <b>949-753-0111</b>	E-MAIL: <b>afarfan@trcsolutions.com</b>		LAB USE ONLY
SAMPLER NAME(S) (Print): <b>J. FEARNES</b>		CONSULTANT PROJECT NUMBER <b>41050001/FA20</b>		REQUESTED ANALYSES

TURNAROUND TIME (CALENDAR DAYS):  
 14 DAYS  7 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED

\* Field Point name only required if different from Sample ID

Sample ID	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	Total DSTLC DTCLP	TPPH by 8260B	BTEX/MBE/ETHANOL by 8260B	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes  <b>6°C</b>	TEMPERATURE ON RECEIPT C°
		DATE	TIME															
	MW-11	7/29	1309	GW	3										X	X	X	
	MW-10		1323															
	MW-1		1410															
	MW-9		1136															
	MW-7		1356															
	MW-8		1405															
	MW-6		1348															

USE ONLY	Sample ID	Sample Identification/Field Point Name*	DATE	TIME	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	Total DSTLC DTCLP	TPPH by 8260B	BTEX/MBE/ETHANOL by 8260B	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes  <b>6°C</b>	TEMPERATURE ON RECEIPT C°
		MW-11	7/29	1309	GW	3										X	X	X	
		MW-10		1323															
		MW-1		1410															
		MW-9		1136															
		MW-7		1356															
		MW-8		1405															
		MW-6		1348															

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <b>REFRIGERATE</b>	Date: <b>7/29/04</b>	Time: <b>1458</b>
Relinquished by: (Signature) <b>7/30/04 1140</b>	Received by: (Signature) <i>[Signature]</i>	Date: <b>7/30/04</b>	Time: <b>0940</b>
Relinquished by: (Signature)	Received by: (Signature) <b>Dee Hutchinson / STL-SF</b>	Date: <b>7/30/04</b>	Time: <b>1140</b>

## **STATEMENTS**

### **Purge Water 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.