

RO 455



76 Broadway
Sacramento, CA 95818
phone 916.558.7676
fax 916.558.7639

February 2, 2005

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

Environmental Services
FEB 24 2005
Alameda County Health Agency

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 2/4/05, and TRC's *Quarterly Monitoring Report*, dated 1/24/05 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,

A handwritten signature in black ink, appearing to read "Thomas H. Kosel".

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

Attachment

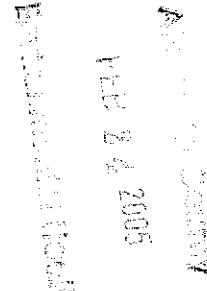
cc: Roger Batra, TRC



February 4, 2005

TRC Project No. 42016101

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



**RE: Quarterly Status Report - Fourth 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 Fourth 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. Conformation 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 $\frac{1}{4}$ mile 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 five of seven wells, with a maximum concentration of 51,000 micrograms per liter ($\mu\text{g/l}$) in onsite well MW-1.

Benzene was detected in one of seven wells, with a maximum concentration of 910 $\mu\text{g/l}$ in onsite well MW-1.

Methyl tertiary butyl ether (MTBE) was detected in six of seven wells, with a maximum concentration of 6,800 µg/l in offsite well MW-7.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring well MW-8 contained 2,400 µg/l MTBE and 2,100 µg/l TPPH, and was non-detect for benzene. Perimeter downgradient monitoring well MW-9 contained 1,300 µg/l MTBE and 1,100 µg/l TPPH, and was non-detect for benzene. Perimeter downgradient monitoring well MW-10 contained 3.5 µg/l MTBE was non-detect for benzene and TPPH. 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 137 pounds of ozone have been injected.

RECENT CORRESPONDENCE

No correspondence this quarter.

CURRENT QUARTER ACTIVITIES

November 24, 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.

October-December 2004: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. Approximately 12 pounds of ozone was injected during the fourth 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 – Fourth Quarter 2004
76 Service Station #1871, Oakland, California
February 4, 2005
Page 4

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

Sincerely,

TRC



Roger Batra
Senior Project Manager

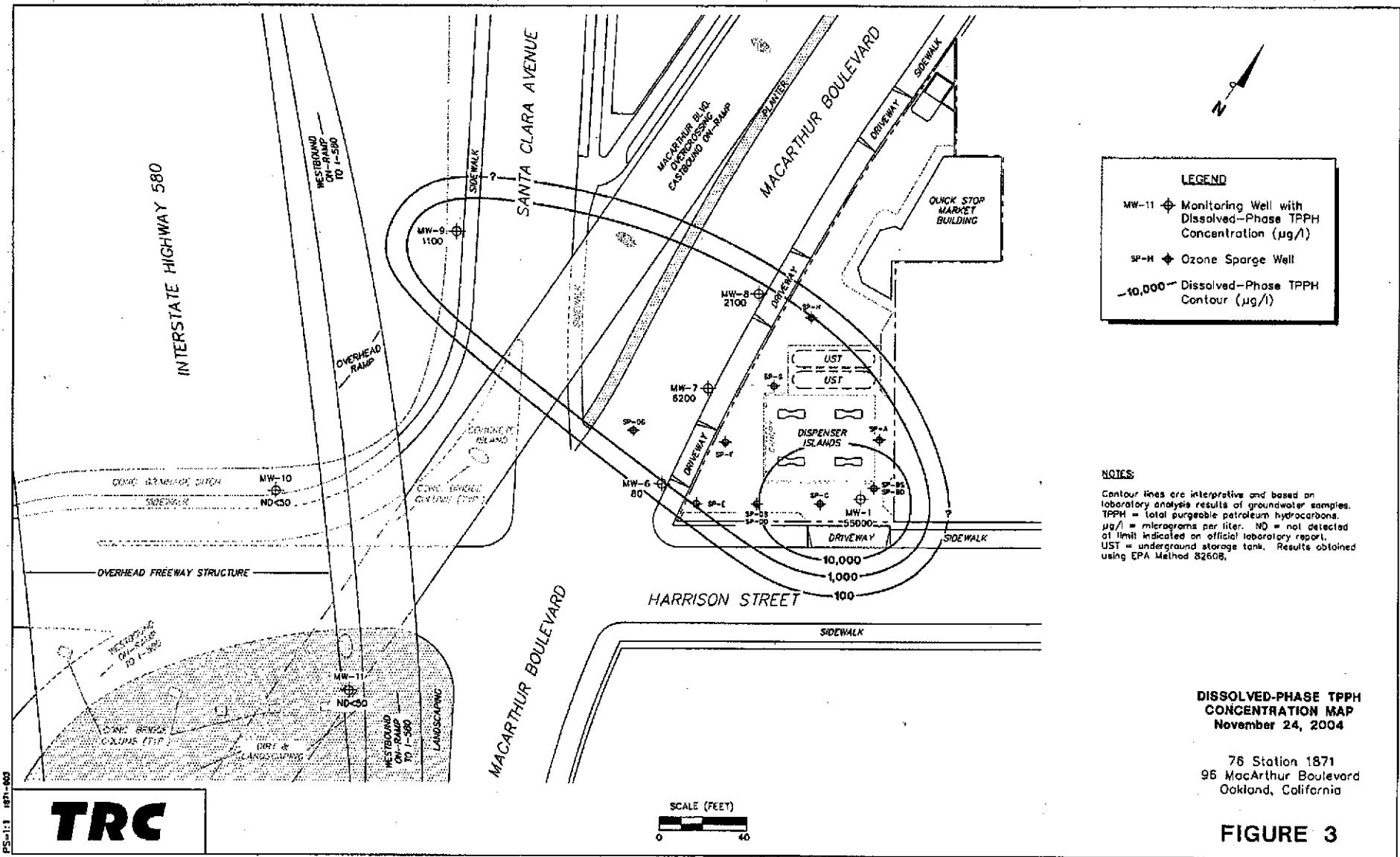
Attachments:

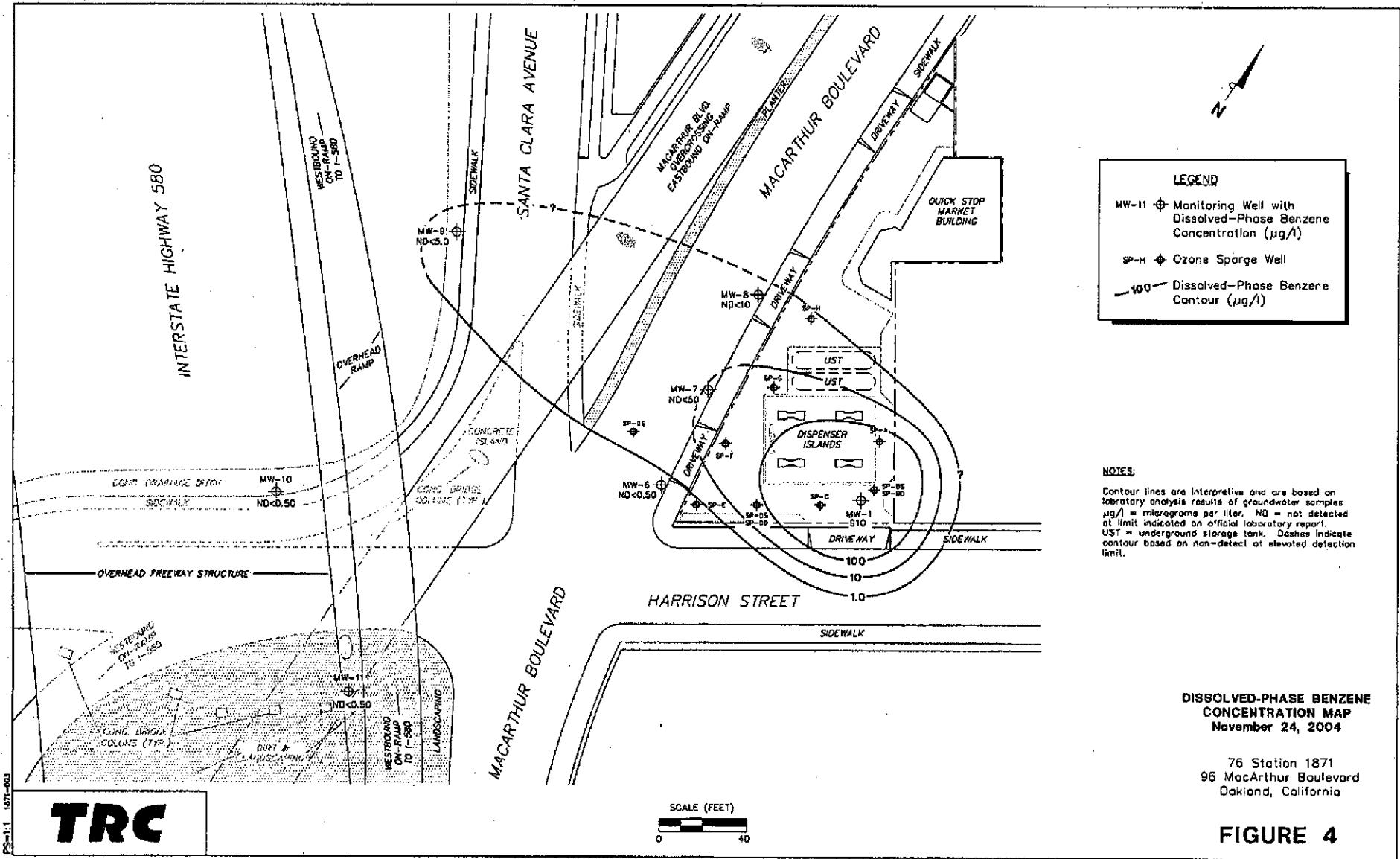
Figure 3 – Dissolved-Phase TPPH Concentration Map, November 24, 2004, from Fourth Quarter 2004 Quarterly Monitoring Report, October through December 2004, dated January 24, 2005 by TRC.

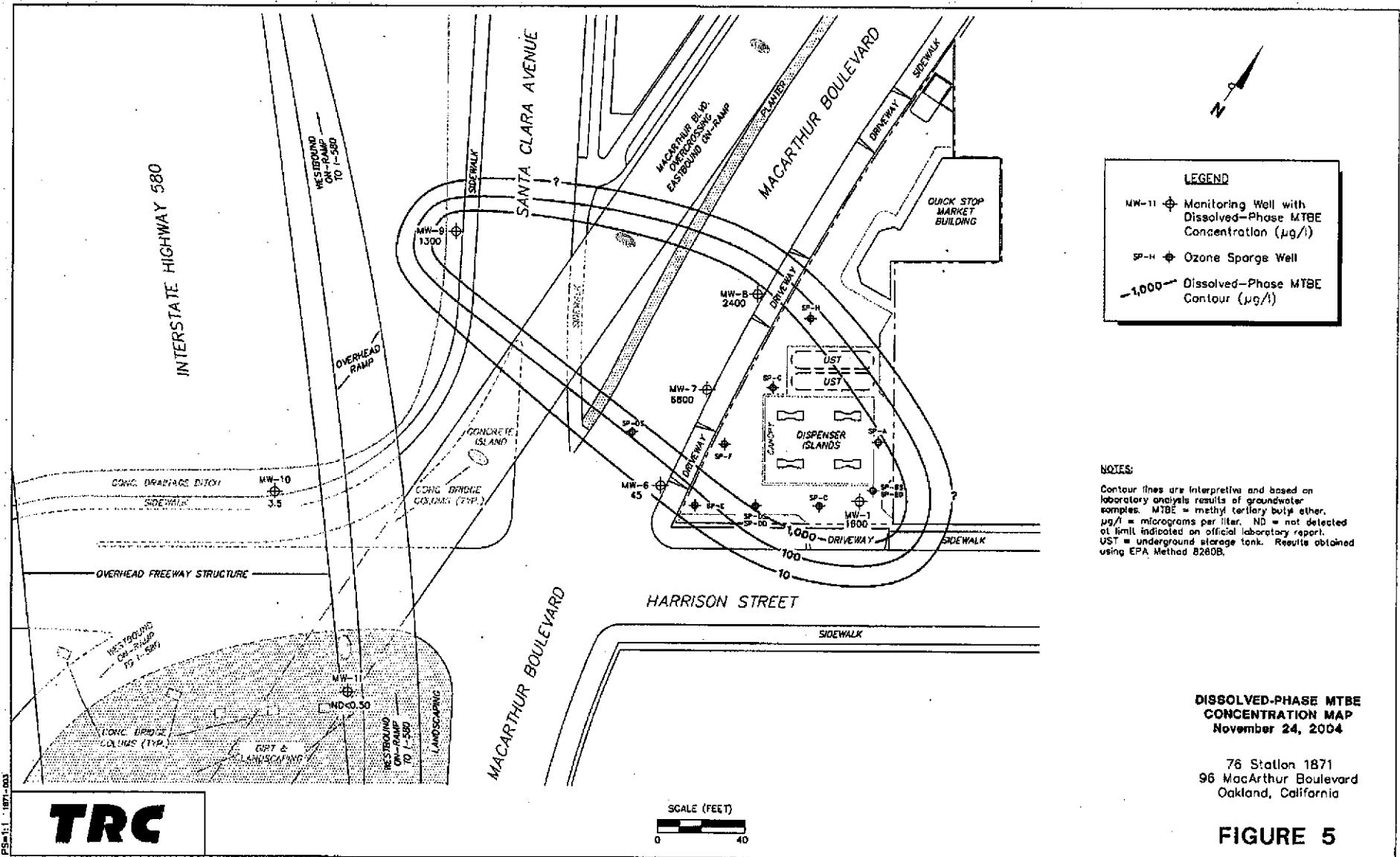
Figure 4 – Dissolved-Phase Benzene Concentration Map, November 24, 2004, from Fourth Quarter 2004 Quarterly Monitoring Report, October through December 2004, dated January 24, 2005 by TRC.

Figure 5 – Dissolved-Phase MTBE Concentration Map, November 24, 2004, from Fourth Quarter 2004 Quarterly Monitoring Report, October through December 2004, dated January 24, 2005 by TRC.

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









January 24, 2005

ConocoPhillips Company
76 Broadway
Sacramento, California 95818

RECEIVED
FEB 24 2005
U.S. POSTAL SERVICE

ATTN: MR. THOMAS H. KOSEL

SITE: 76 STATION 1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT
OCTOBER THROUGH DECEMBER 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

A handwritten signature in black ink that reads "Anju Farfan".

Anju Farfan
QMS Operations Manager

CC: Mr. Roger Batra, TRC (2 copies)
Mr. Mike Karvelot, Quick Stop Markets, Inc

Enclosures
20-0400/1871R05.QMS



Customer-Focused Solutions

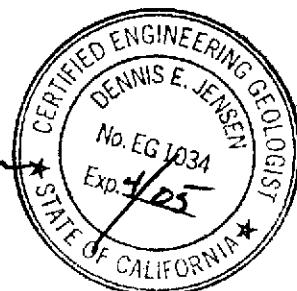
**QUARTERLY MONITORING REPORT
OCTOBER THROUGH DECEMBER 2004**

76 STATION 1871
96 MacArthur Boulevard
Oakland, California

Prepared For:

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

By:



The circular seal contains the following text:
CERTIFIED ENGINEERING GEOLOGIST
DENNIS E. JENSEN
No. EG 1034
Exp. 1/05
STATE OF CALIFORNIA

Senior Project Geologist, Irvine Operations
January 23, 2005

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 TPPH 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

October 2004 through December 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: **11/24/04**

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**

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**

Hydrogeologic Parameters

Depth to groundwater (below TOC): Minimum: **7.55 feet** Maximum: **16.72 feet**

Average groundwater elevation (relative to available local datum): **68.35 feet**

Average change in groundwater elevation since previous event: **-0.54 feet**

Interpreted groundwater gradient and flow direction:

Current event: **0.04 ft/ft, southwest**

Previous event: **0.04 ft/ft, southwest (07/29/04)**

Selected Laboratory Results

Wells with detected **Benzene**: **1** Wells above MCL (1.0 µg/l): **1**

Maximum reported benzene concentration: **910 µg/l (MW-1)**

Wells with **TPPH 8260B** **5** Maximum: **55,000 µg/l (MW-1)**

Wells with **MTBE** **6** Maximum: **6,800 µg/l (MW-7)**

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
$\mu\text{g/l}$	= 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	= trichloroethylene
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: Surface Elevation – Measured Depth to Water + (D_p x LPH Thickness), where D_p 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 re-survey.
9. Historical data has been validated for this report. Values presented in the following tables supercede those from previous reports.

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
November 24, 2004
76 Station 1871

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-1	(Screen Interval in feet: 9.5-24.5)													
11/24/04	86.99	14.98	0.00	72.01	-0.37	--	55000	910	28	3100	11000	--	1600	
MW-6	(Screen Interval in feet: 5.0-25.0)													
11/24/04	79.67	9.59	0.00	70.08	0.16	--	80	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	45	
MW-7	(Screen Interval in feet: 5.0-25.0)													
11/24/04	80.67	9.65	0.00	71.02	-0.25	--	6200	ND<50	ND<50	ND<50	ND<100	--	6800	
MW-8	(Screen Interval in feet: 5.0-25.0)													
11/24/04	81.71	10.19	0.00	71.52	-0.41	--	2100	ND<10	ND<10	ND<10	ND<20	--	2400	
MW-9	(Screen Interval in feet: DNA)													
11/24/04	82.07	16.25	0.00	65.82	-0.44	--	1100	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1300	
MW-10	(Screen Interval in feet: DNA)													
11/24/04	74.98	7.55	0.00	67.43	-0.14	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.5	
MW-11	(Screen Interval in feet: DNA)													
11/24/04	77.31	16.72	0.00	60.59	-2.33	--	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 November 2004
76 Station 1871

Date Sampled	TOC Elevation	Depth to Water (feet)	LPH Thickness	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
MW-1 (Screen Interval in feet: 9.5-24.5)														
11/3/1992	--	--	--	--	--	260000	--	2300	4600	3700	17000	--	--	
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	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through November 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
MW-1 continued														
1/4/2001	86.24	14.92	0.00	71.32	-0.95	63900	--	6270	784	2670	12900	--	38100	
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	
10/15/2002	86.99	14.71	0.00	72.28	-0.75	--	470	16	ND<2.5	14	16	--	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	
4/16/2003	86.99	13.18	0.00	73.81	-0.41	--	510	57	0.62	29	61	--	160	
7/16/2003	86.99	14.26	0.00	72.73	-1.08	--	27000	260	23	730	3200	--	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	
11/24/2004	86.99	14.98	0.00	72.01	-0.37	--	55000	910	28	3100	11000	--	1600	
MW-2 (Screen Interval in feet: DNA)														
11/3/1992	76.61	--	--	--	--	140	--	2.2	ND	ND	2.0	--	--	
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	0.60	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	--	--	

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

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-2 continued														
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	--	--	
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
MW-3 (Screen Interval in feet: DNA)														
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	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
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Date Sampled	TOC Elevation	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
MW-3 continued														
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	--	--	
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	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4 (Screen Interval in feet: DNA)														
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	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5 (Screen Interval in feet: DNA)														
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	--	

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Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-5 continued														
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	--	
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
MW-6 (Screen Interval in feet: 5.0-25.0)														
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	0.60	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	
11/24/2004	79.67	9.59	0.00	70.08	0.16	--	80	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	45	

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Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-7 (Screen Interval in feet: 5.0-25.0)														
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	
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	
11/24/2004	80.67	9.65	0.00	71.02	-0.25	--	6200	ND<50	ND<50	ND<50	ND<100	--	6800	
MW-8 (Screen Interval in feet: 5.0-25.0)														
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	

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Date Sampled	TOC Elevation	Depth to Water (feet)	LPH Thickness	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
MW-8 continued														
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	
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	
11/24/2004	81.71	10.19	0.00	71.52	-0.41	--	2100	ND<10	ND<10	ND<10	ND<20	--	2400	
MW-9 (Screen Interval in feet: DNA)														
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	
11/24/2004	82.07	16.25	0.00	65.82	-0.44	--	1100	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1300	

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MW-10 (Screen Interval in feet: DNA)														
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	
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	
11/24/2004	74.98	7.55	0.00	67.43	-0.14	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.5	
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	

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November 1992 Through November 2004
76 Station 1871

Date Sampled	TOC	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
MW-11 continued														
11/24/2004	77.31	16.72	0.00	60.59	-2.33	--	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 ($\mu\text{g/l}$)	EDC ($\mu\text{g/l}$)	EDB ($\mu\text{g/l}$)	DO (mg/l)	TAME 8260B ($\mu\text{g/l}$)	TBA 8260B ($\mu\text{g/l}$)	DIPE 8260B ($\mu\text{g/l}$)	ETBE 8260B ($\mu\text{g/l}$)	ORP (mV)	pH	Ethanol 8260B ($\mu\text{g/l}$)
MW-1											
6/18/1999	--	--	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
11/24/2004	--	--	--	3.08	--	--	--	--	-39	6.58	ND<2000
MW-4											
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	--	--	--	--	--	--	--	--	--	--
MW-6											
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

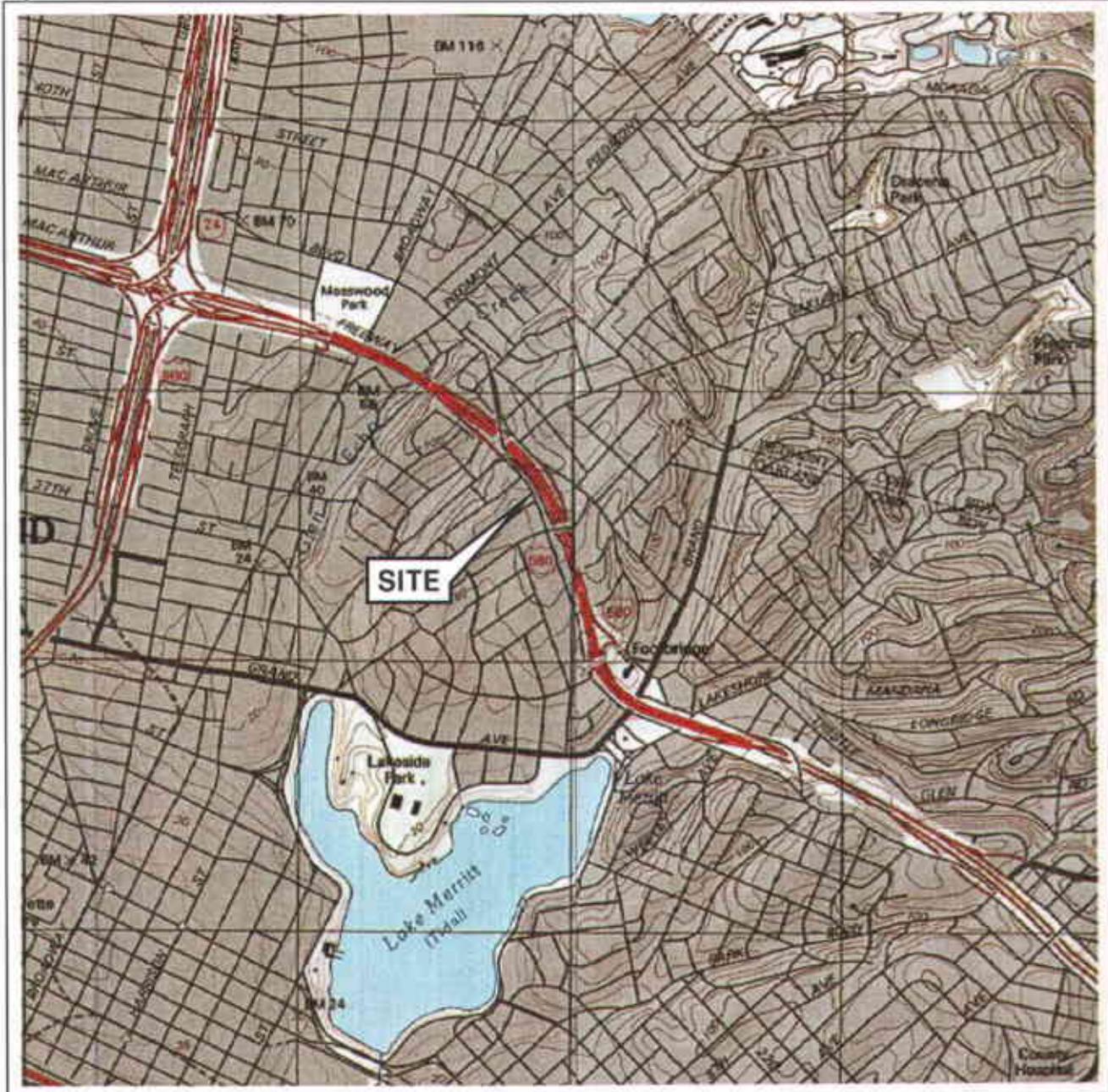
Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 1871

Date Sampled	TPH-D ($\mu\text{g/l}$)	EDC ($\mu\text{g/l}$)	EDB ($\mu\text{g/l}$)	DO (mg/l)	TAME 8260B ($\mu\text{g/l}$)	TBA 8260B ($\mu\text{g/l}$)	DIPE 8260B ($\mu\text{g/l}$)	ETBE 8260B ($\mu\text{g/l}$)	ORP (mV)	pH	Ethanol 8260B ($\mu\text{g/l}$)
MW-6 continued											
7/29/2004	--	--	--	--	--	--	--	--	--	--	ND<100
11/24/2004	--	--	--	2.81	--	--	--	--	-12	6.99	ND<50
MW-7											
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
11/24/2004	--	--	--	1.99	--	--	--	--	-24	6.60	ND<5000
MW-8											
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
11/24/2004	--	--	--	2.71	--	--	--	--	-36	6.67	ND<1000
MW-9											
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
7/16/2003	--	--	--	--	--	--	--	--	--	--	ND<25000

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 1871

Date Sampled	TPH-D ($\mu\text{g/l}$)	EDC ($\mu\text{g/l}$)	EDB ($\mu\text{g/l}$)	DO (mg/l)	TAME 8260B ($\mu\text{g/l}$)	TBA 8260B ($\mu\text{g/l}$)	DIPE 8260B ($\mu\text{g/l}$)	ETBE 8260B ($\mu\text{g/l}$)	ORP (mV)	pH	Ethanol 8260B ($\mu\text{g/l}$)
MW-9 continued											
10/2/2003	--	--	--	--	--	--	--	--	--	--	ND<5000
1/7/2004	--	--	--	--	--	--	--	--	--	--	ND<10000
4/2/2004	--	--	--	--	--	--	--	--	--	--	ND<500
7/29/2004	--	--	--	--	--	--	--	--	--	--	ND<1000
11/24/2004	--	--	--	3.24	--	--	--	--	-67	6.47	ND<500
MW-10											
1/31/2002	--	ND<1.0	ND<1.0	--	ND<1.0	ND<20	ND<1.0	ND<1.0	--	--	ND<500
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<500
1/7/2004	--	--	--	--	--	--	--	--	--	--	ND<500
4/2/2004	--	--	--	--	--	--	--	--	--	--	ND<50
7/29/2004	--	--	--	--	--	--	--	--	--	--	ND<50
11/24/2004	--	--	--	2.59	--	--	--	--	-29	6.89	ND<50
MW-11											
1/31/2002	--	ND<1.0	ND<1.0	--	ND<1.0	ND<20	ND<1.0	ND<1.0	--	--	ND<500
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<500
1/7/2004	--	--	--	--	--	--	--	--	--	--	ND<500
4/2/2004	--	--	--	--	--	--	--	--	--	--	ND<50
7/29/2004	--	--	--	--	--	--	--	--	--	--	ND<50
11/24/2004	--	--	--	3.85	--	--	--	--	143	6.75	ND<50

FIGURES



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

SCALE 1:24,000

N

SOURCE:

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



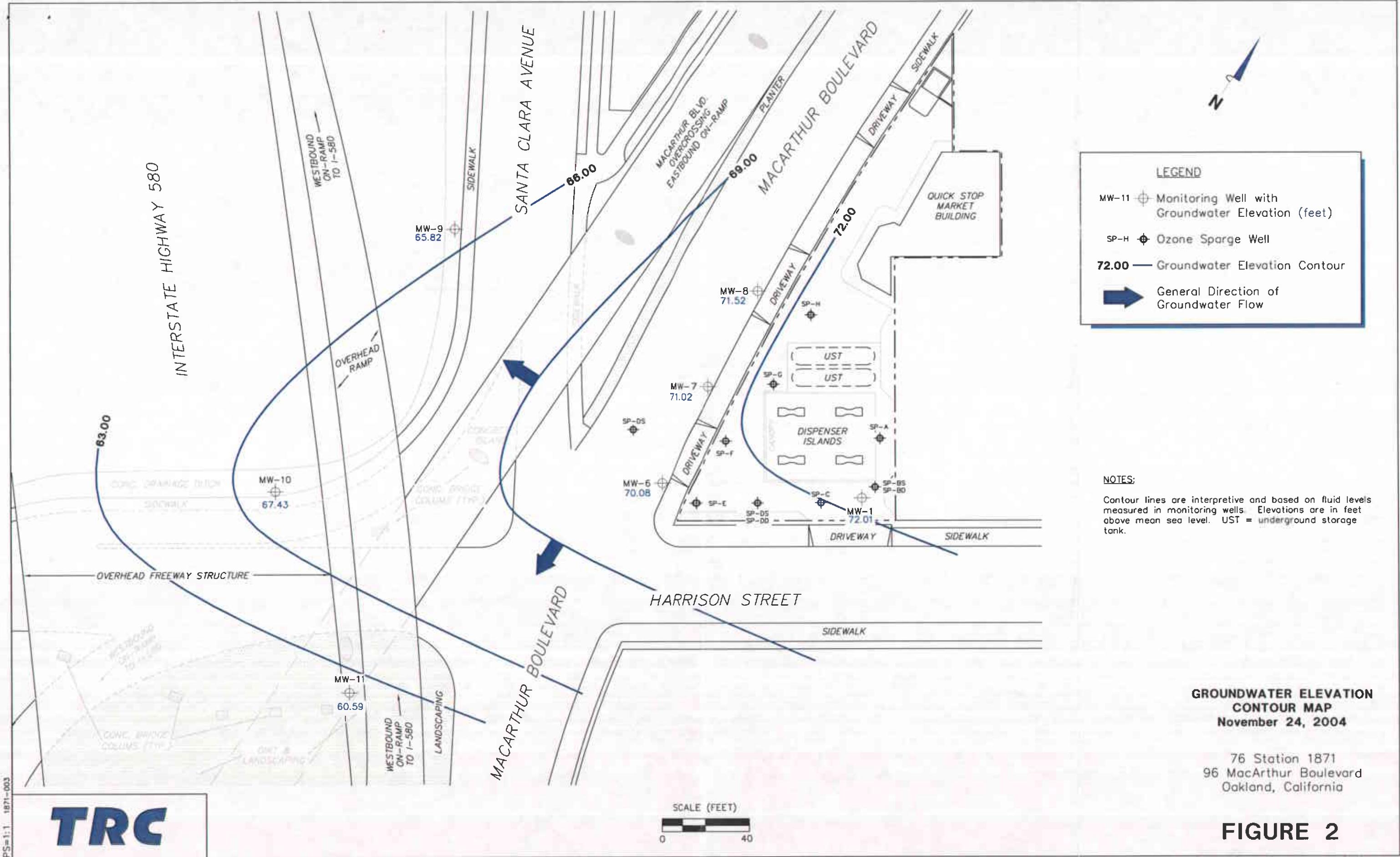
VICINITY MAP

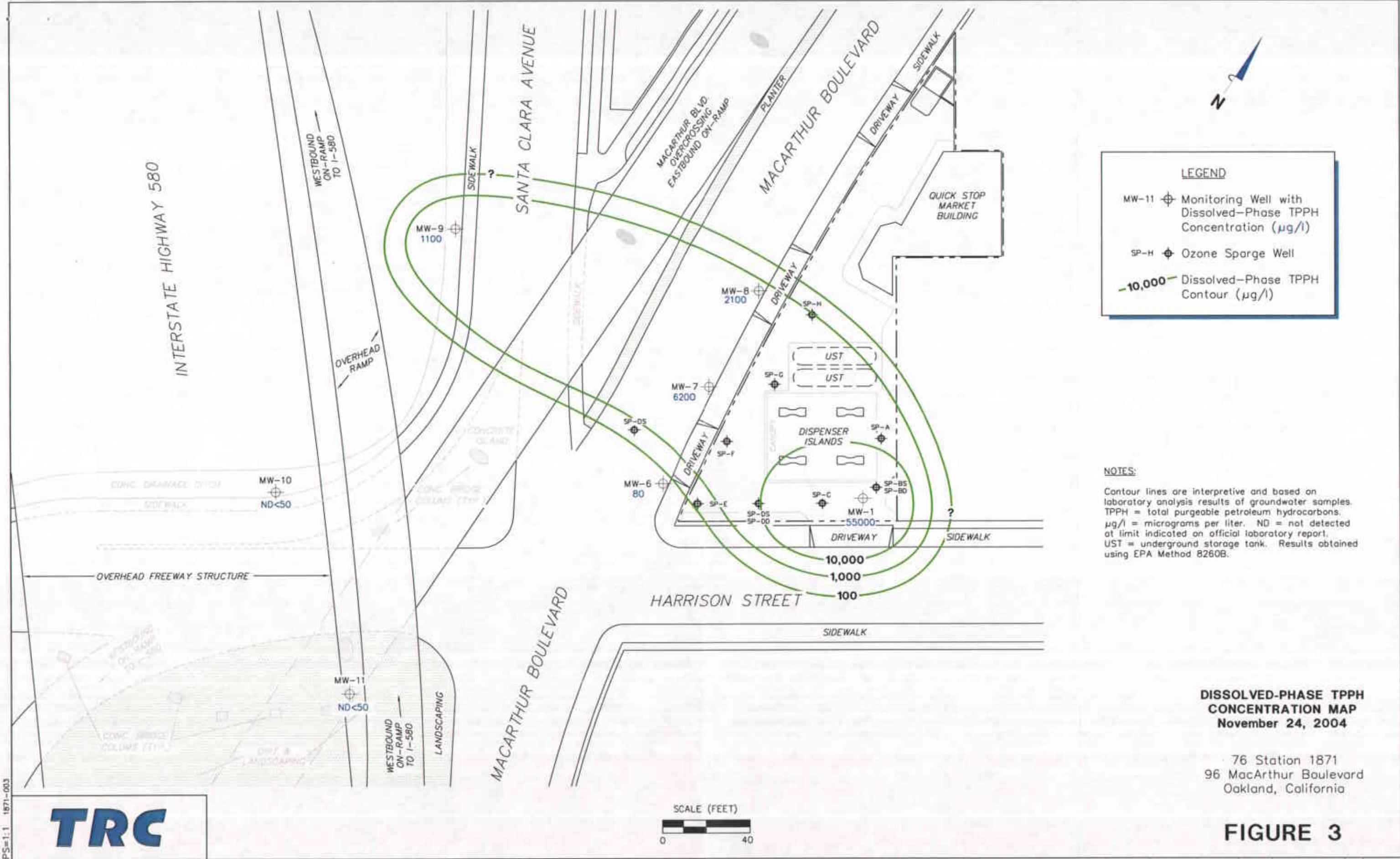
76 Station 1871
96 MacArthur Boulevard
Oakland, California

PS = 1:1

TRC

FIGURE 1





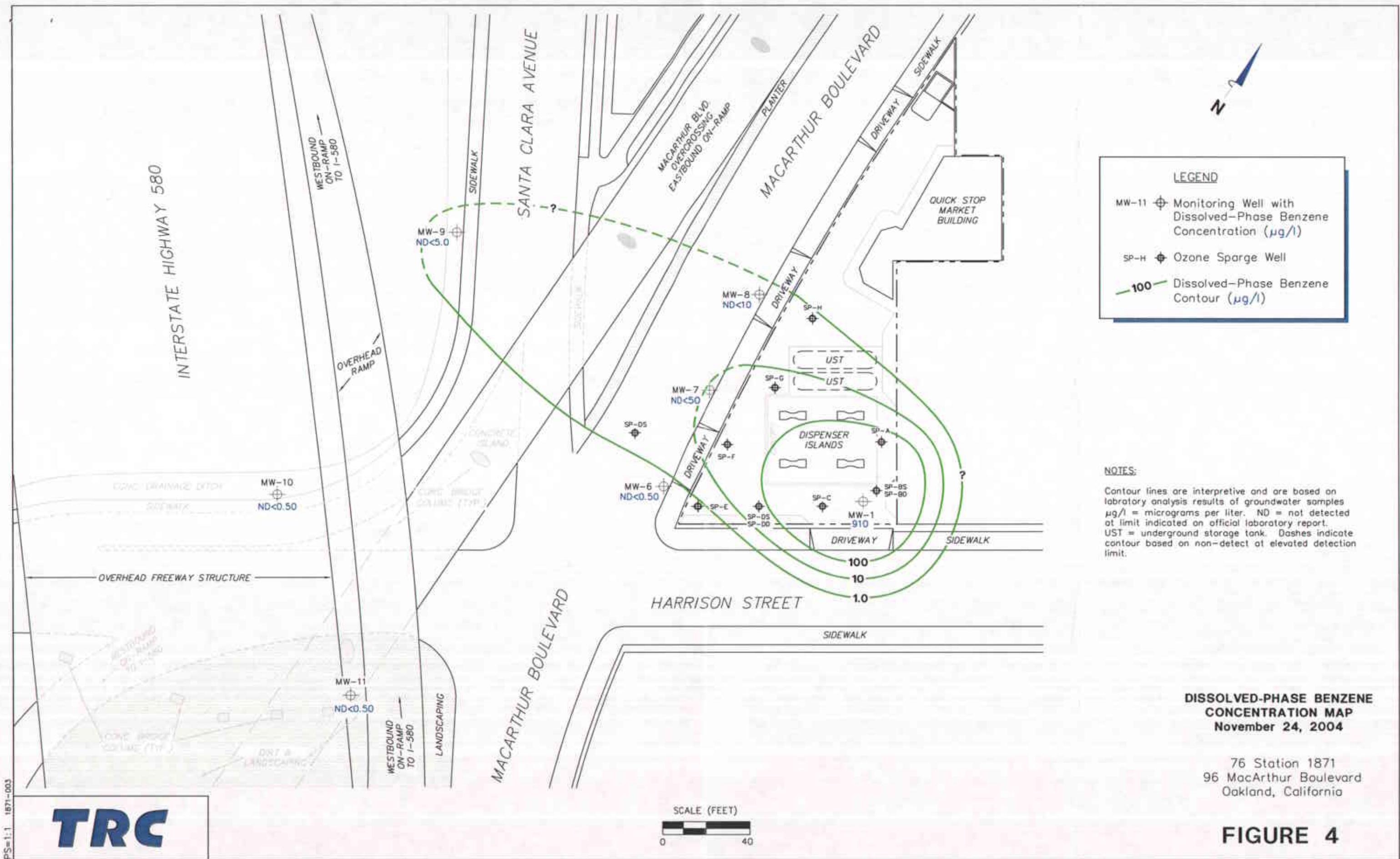


FIGURE 4

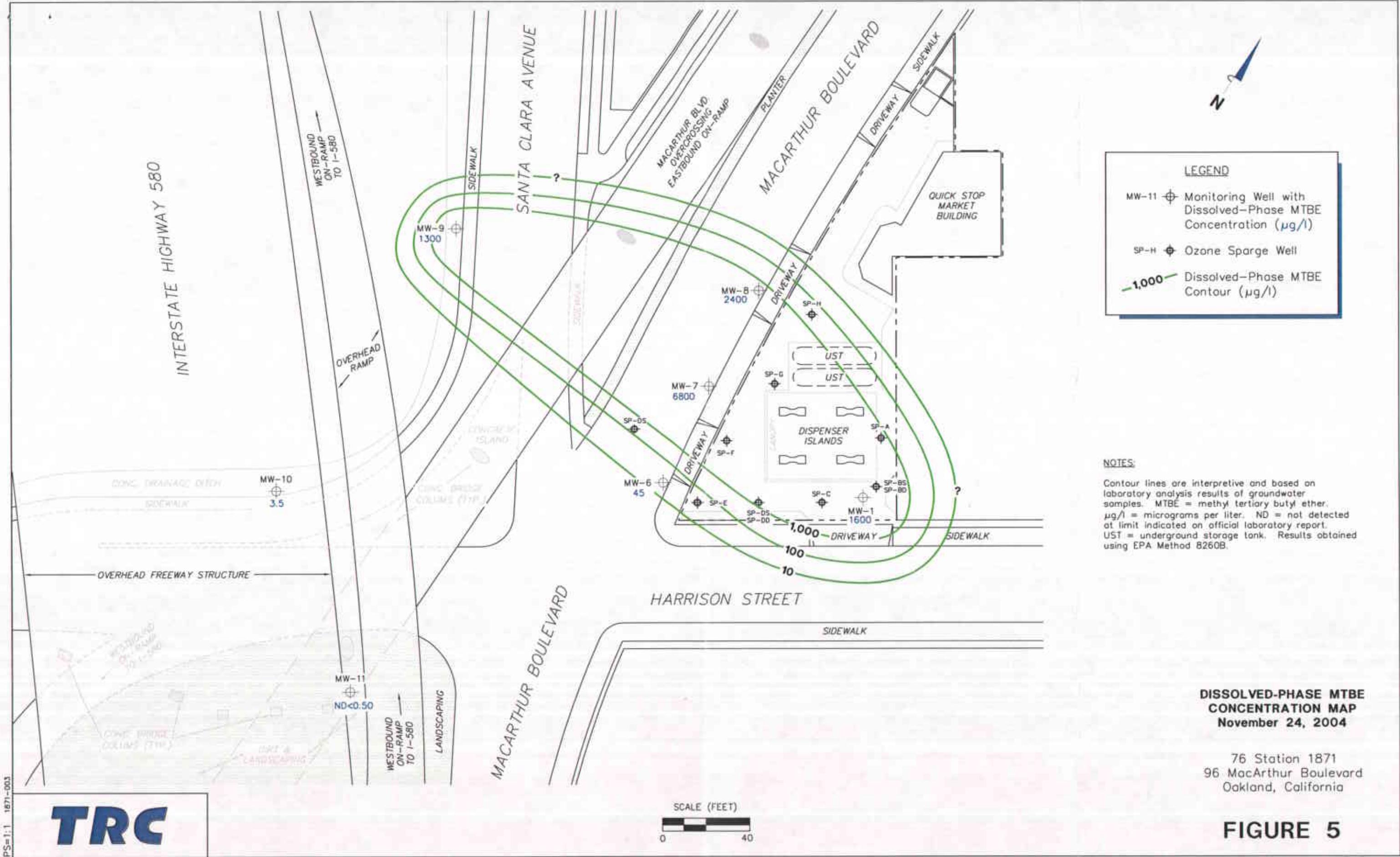
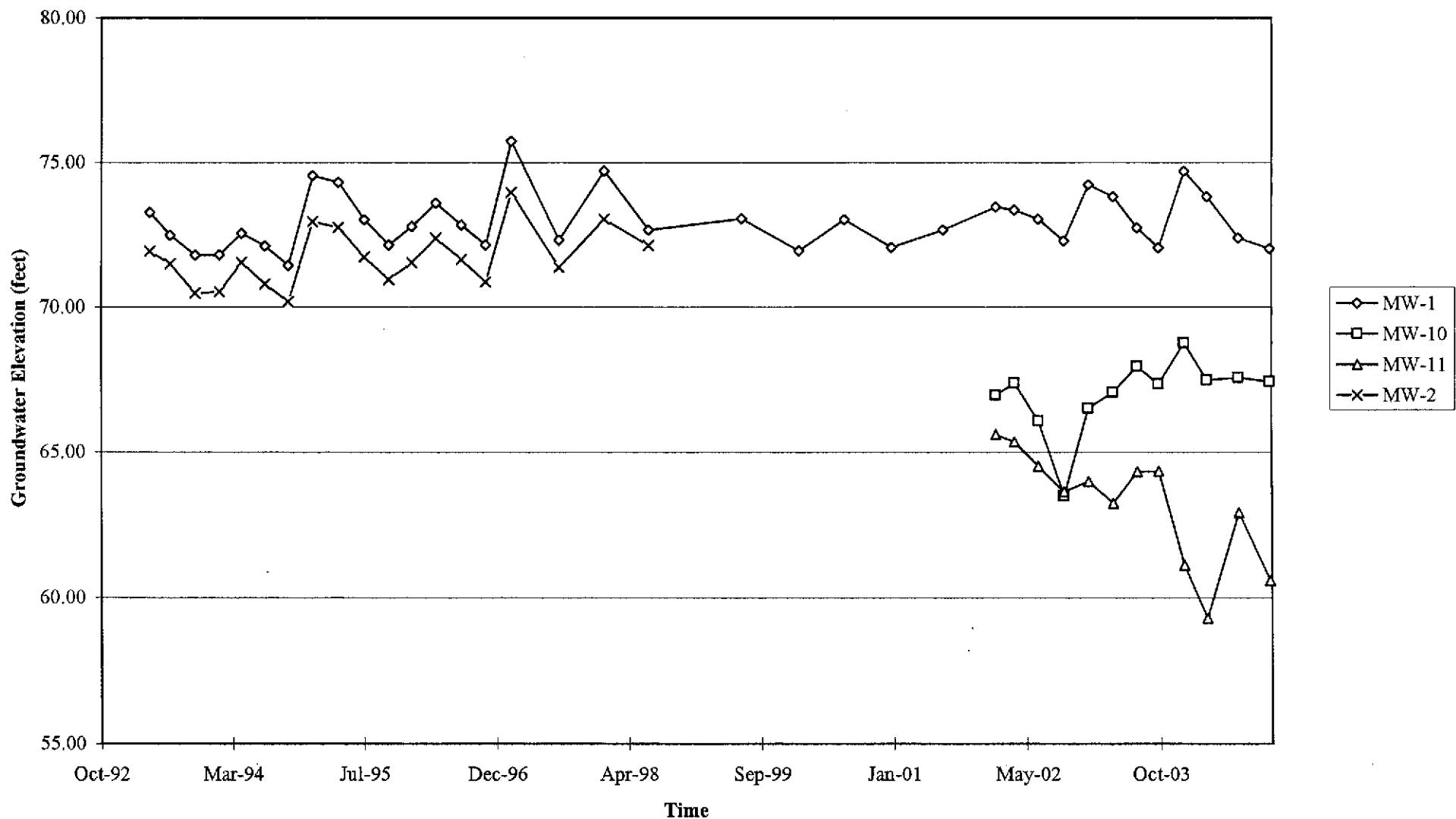


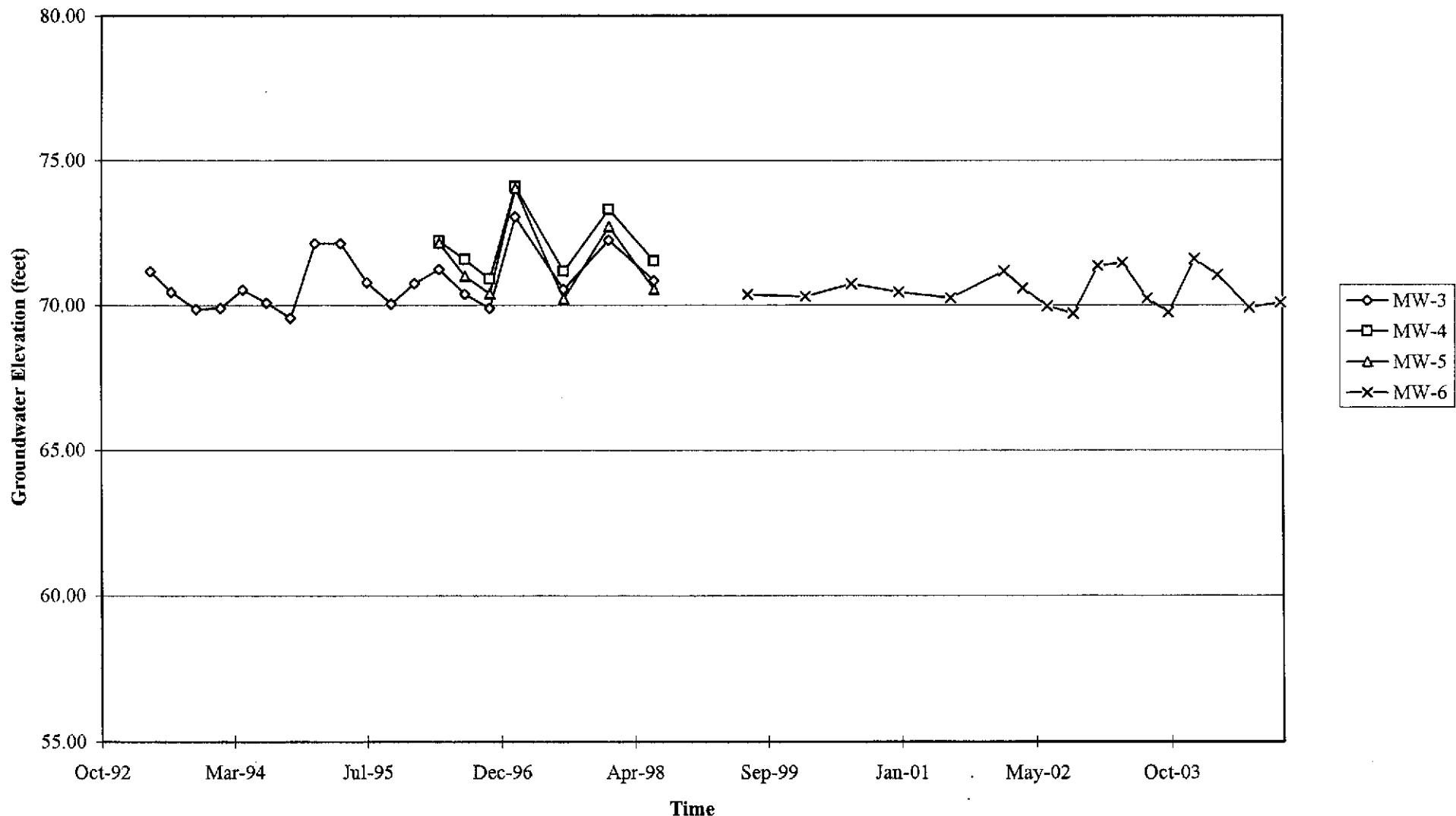
FIGURE 5

GRAPHS

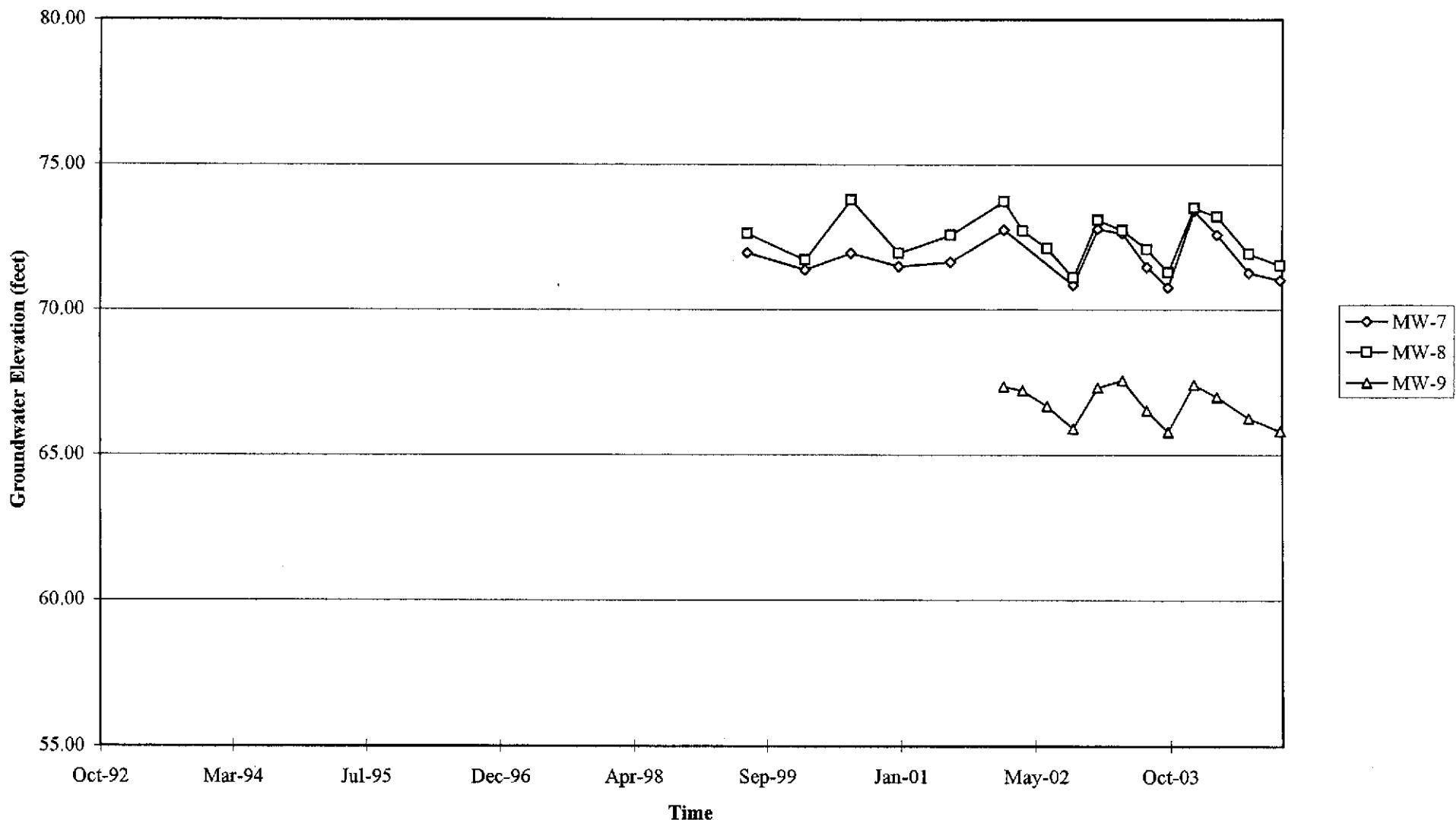
Groundwater Elevations vs. Time
76 Station 1871



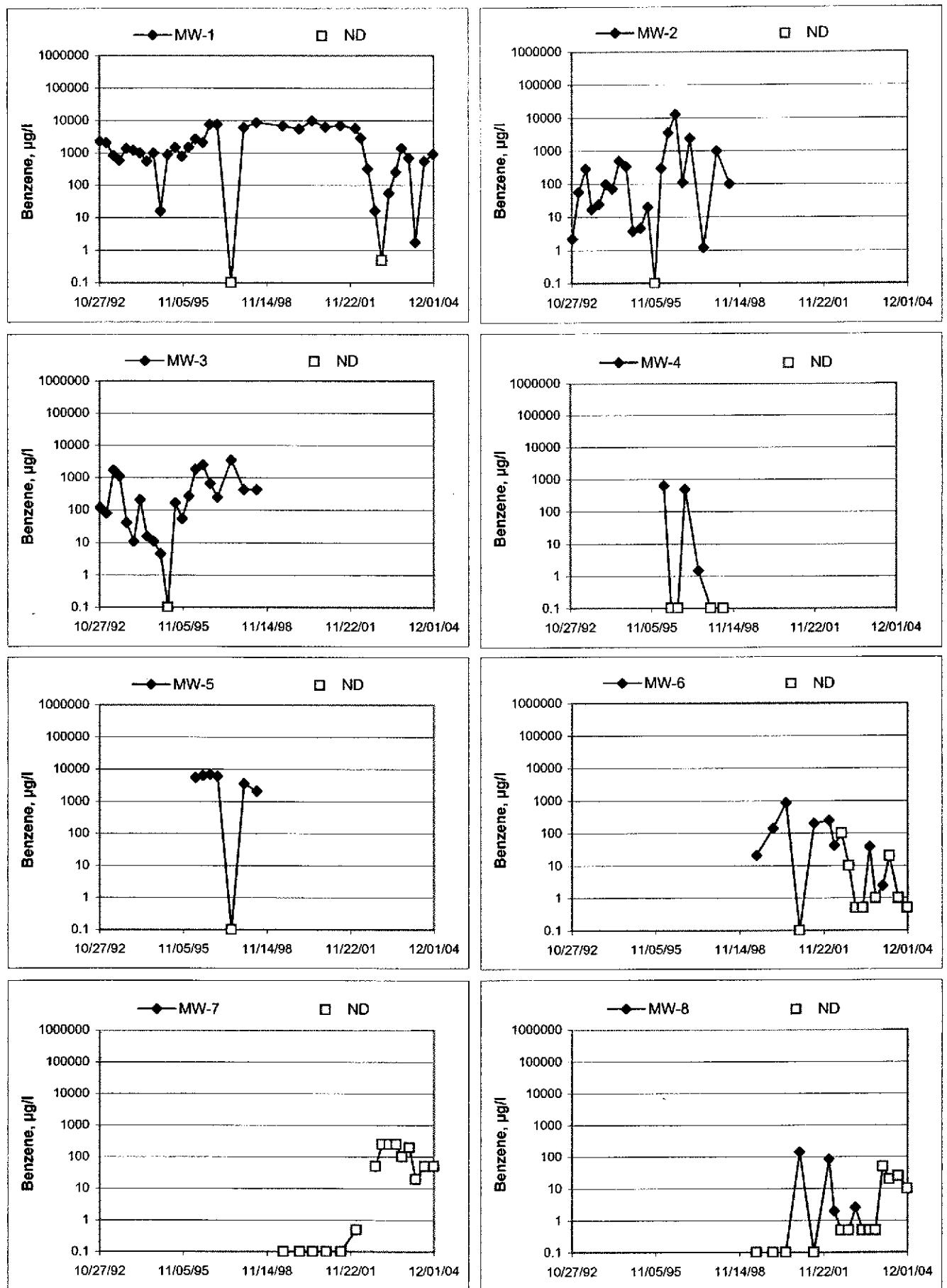
Groundwater Elevations vs. Time
76 Station 1871



Groundwater Elevations vs. Time
76 Station 1871

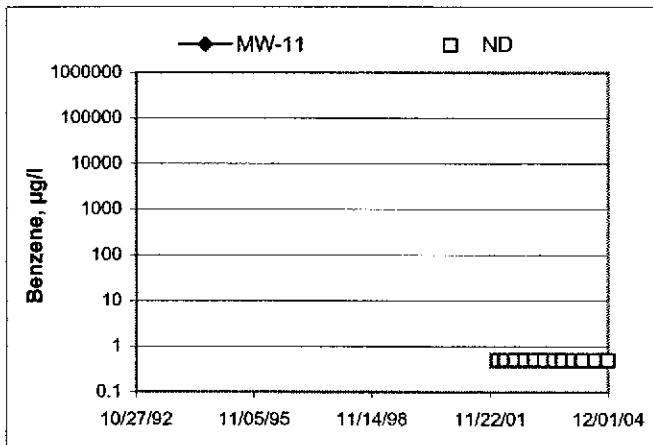
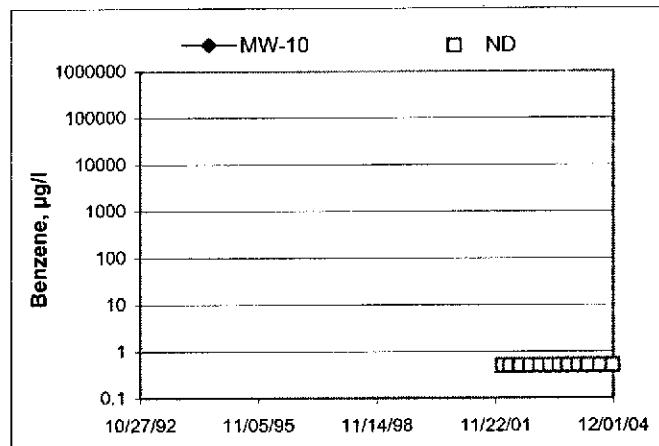
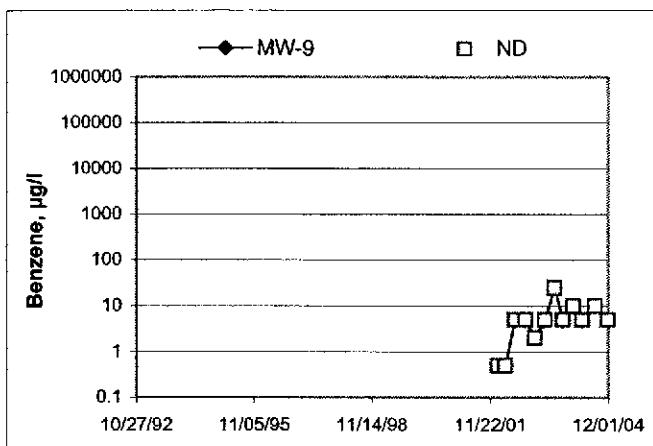


Benzene Concentrations vs Time
76 Station 1871



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: Avt

Job #/Task #: 4650001 / F420

Date: 11-24-04

Site # 1071

Project Manager ROGER BATRA

Page 1 of 1

GROUNDWATER SAMPLING FIELD NOTES

Technician: ALEX

Site: 1871

Project No.: 41050001

Date: 11-24-04

Well No.: MW-6

Purge Method: D

Depth to Water (feet): 10.19

Depth to Product (feet): 6

Total Depth (feet): 24.29

LPH & Water Recovered (gallons):

Water Column (feet): 14.10

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 13.01

1 Well Volume (gallons): 2

Well No.: MW-7

Purge Method: D

Depth to Water (feet): **9.65**

Depth to Product (feet): 6

Total Depth (feet): 24.30

| PH & Water Recovered (gallons): 6

Water Column (feet): 14.69

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 12.54

1 Well Volume (gallons): 2

GROUNDWATER SAMPLING FIELD NOTES

Technician: ALEXSite: 1871Project No.: 4105001Date: 11-24-04Well No.: MW-11Purge Method: DDepth to Water (feet): 16.72Depth to Product (feet): 6Total Depth (feet): 30.04LPH & Water Recovered (gallons): 6Water Column (feet): 13.32Casing Diameter (Inches): 2"80% Recharge Depth (feet): 19.381 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	Turbidity CEC	D.O.
057			2	2.97 ms	14.3	6.69	82	4.32
			4	2.96 ms	14.4	6.72	127	4.87
0707			6	2.94 ms	14.8	6.75	143	3.85
Static at Time Sampled			Total Gallons Purged			Time Sampled		
19.01				6			6958	

Comments: _____

Well No.: MW-9Purge Method: H.B.Depth to Water (feet): 16.25Depth to Product (feet): 6Total Depth (feet): 19.85LPH & Water Recovered (gallons): 6Water Column (feet): 3.6Casing Diameter (Inches): 2"80% Recharge Depth (feet): 16.971 Well Volume (gallons): 61

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	Turbidity CEC	D.O.
0732			.61	676	16.0	6.52	-48	1.71
			1.22	696	16.3	6.41	-71	2.54
0738			1.83	594	16.9	6.47	-67	3.24
Static at Time Sampled			Total Gallons Purged			Time Sampled		
16.31				1.83			1017	

Comments: _____

GROUNDWATER SAMPLING FIELD NOTES

Technician: Alex

Site: 1871

Project No.: 41050001

Date: 11-24-04

Well No.: MW-1

Depth to Water (feet): 14.98

Total Depth (feet): 23.94

Water Column (feet): 8.96

80% Recharge Depth (feet): 16-17

Purge Method: D

Depth to Product (feet): 6

I PH & Water Recovered (gallons): 6

Casing Diameter (Inches): 4"

1 Well Volume (gallons): 4

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):

TRC Alton Geoscience- Irvine

December 13, 2004

21 Technology Drive

Irvine, CA 92718

Attn.: Anju Farfan

Project#: 41050001FA20

Project: Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Attached is our report for your samples received on 11/29/2004 18:20

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 01/13/2005 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

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

Received: 11/29/2004 18:20

Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	11/24/2004 11:30	Water	1
MW-6	11/24/2004 10:37	Water	2
MW-7	11/24/2004 10:45	Water	3
MW-8	11/24/2004 10:53	Water	4
MW-9	11/24/2004 10:17	Water	5
MW-10	11/24/2004 10:07	Water	6
MW-11	11/24/2004 09:58	Water	7

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

Received: 11/29/2004 18:20

Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-1

Lab ID: 2004-11-0835 - 1

Sampled: 11/24/2004 11:30

Extracted: 12/4/2004 11:21

Matrix: Water

QC Batch#: 2004/12/04-1B.62

Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	55000	2000	ug/L	40.00	12/04/2004 11:21	
Benzene	910	20	ug/L	40.00	12/04/2004 11:21	
Toluene	28	20	ug/L	40.00	12/04/2004 11:21	
Ethylbenzene	3100	20	ug/L	40.00	12/04/2004 11:21	
Total xylenes	11000	40	ug/L	40.00	12/04/2004 11:21	
Methyl tert-butyl ether (MTBE)	1600	20	ug/L	40.00	12/04/2004 11:21	
Ethanol	ND	2000	ug/L	40.00	12/04/2004 11:21	
Surrogate(s)						
1,2-Dichloroethane-d4	99.1	73-130	%	40.00	12/04/2004 11:21	
Toluene-d8	99.9	81-114	%	40.00	12/04/2004 11:21	

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: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-6

Lab ID: 2004-11-0835 - 2

Sampled: 11/24/2004 10:37

Extracted: 12/5/2004 09:21

Matrix: Water

QC Batch#: 2004/12/05-1A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	80	50	ug/L	1.00	12/05/2004 09:21	Q1
Benzene	ND	0.50	ug/L	1.00	12/05/2004 09:21	
Toluene	ND	0.50	ug/L	1.00	12/05/2004 09:21	
Ethylbenzene	ND	0.50	ug/L	1.00	12/05/2004 09:21	
Total xylenes	ND	1.0	ug/L	1.00	12/05/2004 09:21	
Methyl tert-butyl ether (MTBE)	45	0.50	ug/L	1.00	12/05/2004 09:21	
Ethanol	ND	50	ug/L	1.00	12/05/2004 09:21	
Surrogate(s)						
1,2-Dichloroethane-d4	100.0	73-130	%	1.00	12/05/2004 09:21	
Toluene-d8	93.1	81-114	%	1.00	12/05/2004 09:21	

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: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-7

Lab ID: 2004-11-0835 - 3

Sampled: 11/24/2004 10:45

Extracted: 12/4/2004 10:38

Matrix: Water

QC Batch#: 2004/12/04-1B.62

Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	6200	5000	ug/L	100.00	12/04/2004 10:38	Q6
Benzene	ND	50	ug/L	100.00	12/04/2004 10:38	
Toluene	ND	50	ug/L	100.00	12/04/2004 10:38	
Ethylbenzene	ND	50	ug/L	100.00	12/04/2004 10:38	
Total xylenes	ND	100	ug/L	100.00	12/04/2004 10:38	
Methyl tert-butyl ether (MTBE)	6800	50	ug/L	100.00	12/04/2004 10:38	
Ethanol	ND	5000	ug/L	100.00	12/04/2004 10:38	
Surrogate(s)						
1,2-Dichloroethane-d4	93.6	73-130	%	100.00	12/04/2004 10:38	
Toluene-d8	104.2	81-114	%	100.00	12/04/2004 10:38	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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21 Technology Drive

Irvine, CA 92718

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

Project: 41050001FA20

Received: 11/29/2004 18:20

Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-8

Lab ID: 2004-11-0835 - 4

Sampled: 11/24/2004 10:53

Extracted: 12/5/2004 09:43

Matrix: Water

QC Batch#: 2004/12/05-1A.64

Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2100	1000	ug/L	20.00	12/05/2004 09:43	Q6
Benzene	ND	10	ug/L	20.00	12/05/2004 09:43	
Toluene	ND	10	ug/L	20.00	12/05/2004 09:43	
Ethylbenzene	ND	10	ug/L	20.00	12/05/2004 09:43	
Total xylenes	ND	20	ug/L	20.00	12/05/2004 09:43	
Methyl tert-butyl ether (MTBE)	2400	10	ug/L	20.00	12/05/2004 09:43	
Ethanol	ND	1000	ug/L	20.00	12/05/2004 09:43	
Surrogate(s)						
1,2-Dichloroethane-d4	103.9	73-130	%	20.00	12/05/2004 09:43	
Toluene-d8	98.8	81-114	%	20.00	12/05/2004 09:43	

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

Received: 11/29/2004 18:20

Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-9

Lab ID: 2004-11-0835 - 5

Sampled: 11/24/2004 10:17

Extracted: 12/5/2004 10:06

Matrix: Water

QC Batch#: 2004/12/05-1A.64

Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1100	500	ug/L	10.00	12/05/2004 10:06	Q6
Benzene	ND	5.0	ug/L	10.00	12/05/2004 10:06	
Toluene	ND	5.0	ug/L	10.00	12/05/2004 10:06	
Ethylbenzene	ND	5.0	ug/L	10.00	12/05/2004 10:06	
Total xylenes	ND	10	ug/L	10.00	12/05/2004 10:06	
Methyl tert-butyl ether (MTBE)	1300	5.0	ug/L	10.00	12/05/2004 10:06	
Ethanol	ND	500	ug/L	10.00	12/05/2004 10:06	
Surrogate(s)						
1,2-Dichloroethane-d4	106.2	73-130	%	10.00	12/05/2004 10:06	
Toluene-d8	86.9	81-114	%	10.00	12/05/2004 10:06	

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: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Prep(s): 5030B Test(s): 8260FAB
Sample ID: MW-10 Lab ID: 2004-11-0835 - 6
Sampled: 11/24/2004 10:07 Extracted: 12/4/2004 09:33
Matrix: Water QC Batch#: 2004/12/04-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/04/2004 09:33	
Benzene	ND	0.50	ug/L	1.00	12/04/2004 09:33	
Toluene	ND	0.50	ug/L	1.00	12/04/2004 09:33	
Ethylbenzene	ND	0.50	ug/L	1.00	12/04/2004 09:33	
Total xylenes	ND	1.0	ug/L	1.00	12/04/2004 09:33	
Methyl tert-butyl ether (MTBE)	3.5	0.50	ug/L	1.00	12/04/2004 09:33	
Ethanol	ND	50	ug/L	1.00	12/04/2004 09:33	
Surrogate(s)						
1,2-Dichloroethane-d4	96.3	73-130	%	1.00	12/04/2004 09:33	
Toluene-d8	99.6	81-114	%	1.00	12/04/2004 09:33	

Gas/BTEX Fuel Oxygenates by 8260B

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Irvine, CA 92718
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Project: 41050001FA20
Conoco Phillips #1871

Received: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-11	Lab ID:	2004-11-0835 - 7
Sampled:	11/24/2004 09:58	Extracted:	12/4/2004 08:28
Matrix:	Water	QC Batch#:	2004/12/04-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/04/2004 08:28	
Benzene	ND	0.50	ug/L	1.00	12/04/2004 08:28	
Toluene	ND	0.50	ug/L	1.00	12/04/2004 08:28	
Ethylbenzene	ND	0.50	ug/L	1.00	12/04/2004 08:28	
Total xylenes	ND	1.0	ug/L	1.00	12/04/2004 08:28	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	12/04/2004 08:28	
Ethanol	ND	50	ug/L	1.00	12/04/2004 08:28	
Surrogate(s)						
1,2-Dichloroethane-d4	97.2	73-130	%	1.00	12/04/2004 08:28	
Toluene-d8	102.3	81-114	%	1.00	12/04/2004 08:28	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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Irvine, CA 92718
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Project: 41050001FA20
Conoco Phillips #1871

Received: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Method Blank

Water

QC Batch # 2004/12/04-1B.62

MB: 2004/12/04-1B.62-041

Date Extracted: 12/04/2004 07:41

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	12/04/2004 07:41	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	12/04/2004 07:41	
Benzene	ND	0.5	ug/L	12/04/2004 07:41	
Toluene	ND	0.5	ug/L	12/04/2004 07:41	
Ethylbenzene	ND	0.5	ug/L	12/04/2004 07:41	
Total xylenes	ND	1.0	ug/L	12/04/2004 07:41	
Ethanol	ND	50	ug/L	12/04/2004 07:41	
Surrogates(s)					
1,2-Dichloroethane-d4	96.4	73-130	%	12/04/2004 07:41	
Toluene-d8	99.4	81-114	%	12/04/2004 07:41	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20
Conoco Phillips #1871

Received: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Method Blank

Water

QC Batch # 2004/12/05-1A.64

MB: 2004/12/05-1A.64-029

Date Extracted: 12/05/2004 07:29

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	12/05/2004 07:29	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	12/05/2004 07:29	
Benzene	ND	0.5	ug/L	12/05/2004 07:29	
Toluene	ND	0.5	ug/L	12/05/2004 07:29	
Ethylbenzene	ND	0.5	ug/L	12/05/2004 07:29	
Total xylenes	ND	1.0	ug/L	12/05/2004 07:29	
Ethanol	ND	50	ug/L	12/05/2004 07:29	
Surrogates(s)					
1,2-Dichloroethane-d4	98.6	73-130	%	12/05/2004 07:29	
Toluene-d8	93.2	81-114	%	12/05/2004 07:29	

Gas/BTEX Fuel Oxygenates by 8260B

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

Project: 41050001FA20
Conoco Phillips #1871

Received: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike**Water****QC Batch # 2004/12/04-1B.62**

LCS 2004/12/04-1B.62-020
LCSD

Extracted: 12/04/2004

Analyzed: 12/04/2004 07:20

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	26.9		25	107.6			65-165	20		
Benzene	23.4		25	93.6			69-129	20		
Toluene	25.0		25	100.0			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	478		500	95.6			73-130			
Toluene-d8	501		500	100.2			81-114			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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21 Technology Drive
Irvine, CA 92718

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

Project: 41050001FA20

Received: 11/29/2004 18:20

Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike**Water****QC Batch # 2004/12/05-1A.64**LCS 2004/12/05-1A.64-007
LCSD

Extracted: 12/05/2004

Analyzed: 12/05/2004 07:07

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	24.6		25	98.4		65-165	20			
Benzene	23.2		25	92.8		69-129	20			
Toluene	23.7		25	94.8		70-130	20			
<i>Surrogates(s)</i>										
1,2-Dichloroethane-d4	464		500	92.8		73-130				
Toluene-d8	454		500	90.8		81-114				

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

Received: 11/29/2004 18:20

Conoco Phillips #1871

Site: 96 MacArthur Blvd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Matrix Spike (MS / MSD)**Water****QC Batch # 2004/12/04-1B.62****MS/MSD**

Lab ID: 2004-11-0834 - 001

MS: 2004/12/04-1B.62-050

Extracted: 12/04/2004

Analyzed: 12/04/2004 08:50

MSD: 2004/12/04-1B.62-011

Extracted: 12/04/2004

Dilution: 1.00

Analyzed: 12/04/2004 09:11

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	23.3	23.3	ND	25	93.2	93.2	0.0	69-129	20		
Toluene	25.8	26.8	ND	25	103.2	107.2	3.8	70-130	20		
Methyl tert-butyl ether	25.3	25.4	ND	25	101.2	101.6	0.4	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	442	454		500	88.4	90.8		73-130			
Toluene-d8	534	519		500	106.8	103.8		81-114			

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: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Matrix Spike (MS / MSD)**Water****QC Batch # 2004/12/05-1A.64**

MS/MSD

Lab ID: 2004-12-0056 - 002

MS: 2004/12/05-1A.64-050

Extracted: 12/05/2004

Analyzed: 12/05/2004 13:50

MSD: 2004/12/05-1A.64-012

Extracted: 12/05/2004

Dilution: 1.00

Analyzed: 12/05/2004 14:12

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	50.8	46.1	14.9	25	143.6	124.8	14.0	65-165	20		
Benzene	31.3	30.1	ND	25	125.2	120.4	3.9	69-129	20		
Toluene	31.8	30.2	ND	25	127.2	120.8	5.2	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	516	507		500	103.2	101.4		73-130			
Toluene-d8	493	496		500	98.6	99.2		81-114			

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: 11/29/2004 18:20

Site: 96 MacArthur Blvd., Oakland

Legend and Notes

Analysis Flag

L2

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

Result Flag

Q1

Quantit. of unknown hydrocarbon(s) in sample based on gasoline.

Q6

The concentration reported reflect(s) individual or discrete unidentified
peaks not matching a typical fuel pattern.

STL San Francisco

Sample Receipt Checklist

Submission #: 2004- 11 - 0835Checklist completed by: (initials) DSH Date: 11, 30 /04Courier 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 ($4^{\circ}\text{C} \pm 2^{\circ}\text{C}$)? Temp: 2 $^{\circ}\text{C}$ Temp: 2 $^{\circ}\text{C}$ Yes No _____Potential reasons for >6 $^{\circ}\text{C}$: Ice melted Ice in bags Not enough ice Not enough blue ice Samples in boxes Sampled < 1 hr ago? Ice not required (e.g. air or bulk sample) 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: HNO₃ HCl H₂SO₄ 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 NoSummary of discussion: _____

Corrective Action (per PM/Client): _____

STL-San Francisco

1220 Quarry Lane
Pleasanton, CA 94566
(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Chain Of Custody Record

96081

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

2004-11-0835

ConocoPhillips Work Order Number:

11201102 500

ConocoPhillips Cost Object:

DATE: 11-26-04

PAGE: 1 of 1

SAMPLING COMPANY: TRC		Valid Value ID:	CONOCOPHILLIPS SITE NUMBER 1871	GLOBAL ID NO.: 70600101493			
ADDRESS: 21 Technology Drive, Irvine CA 92618		SITE ADDRESS (Street and City): 960 MAC ARTHUR BLVD.		CONOCOPHILLIPS SITE MANAGER: CARLTON THOMAS KOSEL			
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			
SAMPLER NAME(S) (Print): <i>Afya</i>	CONSULTANT PROJECT NUMBER 41050001/FA20	E-MAIL: afarfan@trcsolutions.com					
REQUESTED ANALYSES		LAB USE ONLY					
TURNAROUND TIME (CALENDAR DAYS): <input 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							
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED <input checked="" type="checkbox"/>							
* Field Point name only required if different from Sample ID		FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes					
LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		TEMPERATURE ON RECEIPT C° <i>7</i>			
		DATE	TIME		MATRIX	NO. OF CONT.	
	MW-1	11-24-04	1130	G.W	5	<input type="checkbox"/> X	30000 w/ 400
	MW-6		1037				
	MW-7		1045				
	MW-8		1053				
	MW-9		1017				
	MW-10		1007				
	MW-11		0958				
Relinquished by: (Signature) <i>Mr. G. Farfan</i> ①		Received by: (Signature) <i>REFRIGERATOR</i>		Date: 11-24-04	Time: 12:05		
Relinquished by: (Signature) <i>11/29/04 1020</i> ③		Received by: (Signature) <i>M.W.</i> ②		Date: 11/29/04	Time: 10:57		
Relinquished by: (Signature)		Received by: (Signature) <i>Gray B. Bullock</i> ④		Date: 11/29/04	Time: 18:20		

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.