RO455

ConocoPhillips

76 Broadway
Sacramento, CA 95818
phone 916.558.7676
fax 916.558.7639

July 26, 2005



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

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 7/25/05,* TRC's *Quarterly Monitoring Report, dated 7/25/05, and Secor's Quarterly Remedial Performance Summary, dated 7/15/05* 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 reports are 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

TRC

Customer-Focused Solutions

July 25, 2005 TRC Project No. 42016103

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

**RE: Quarterly Status Report - Second Quarter 2005**
**76 Service Station #1871, 96 MacArthur Boulevard, Oakland, California**
**Alameda County**

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Second Quarter 2005 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 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 flow is 0.03 foot/foot west and 0.03 foot/foot south.

## CHARACTERIZATION STATUS

Total purgeable petroleum hydrocarbons (TPPH) were detected in five of seven wells, with a maximum concentration of 24,000 micrograms per liter (µg/l) in onsite well MW-1.

Benzene was detected in two of seven wells, with a maximum concentration of 140 µg/l in onsite well MW-1.

Methyl tertiary butyl ether (MTBE) was detected in five of seven wells, with a maximum concentration of 12,000 µg/l in offsite well MW-7.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring well MW-8 contained 980 µg/l MTBE and was non-detect for benzene. Perimeter downgradient monitoring well MW-9 contained 2,000 µg/l MTBE and was non-detect for benzene. Perimeter downgradient monitoring well MW-10 and MW-11 were non-detect for MTBE, TPPH, and benzene.

## 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

June 23, 2005: 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.

April-June 2005: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. During the quarter the system operated for 606 hours. The system was restarted on May 4, 2005 after replacing the compressor fan blade and repairing the hose from the compressor to the manifold. On June 2, 2005 lines 3,4, and 7 were replaced between the panel and first check valve and line 3 was turned off due to a leak detected in the secondary containment. Approximately 5.45 pounds of ozone was injected during the second 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.

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

Sincerely,

TRC

Roger Batra
Senior Project Manager

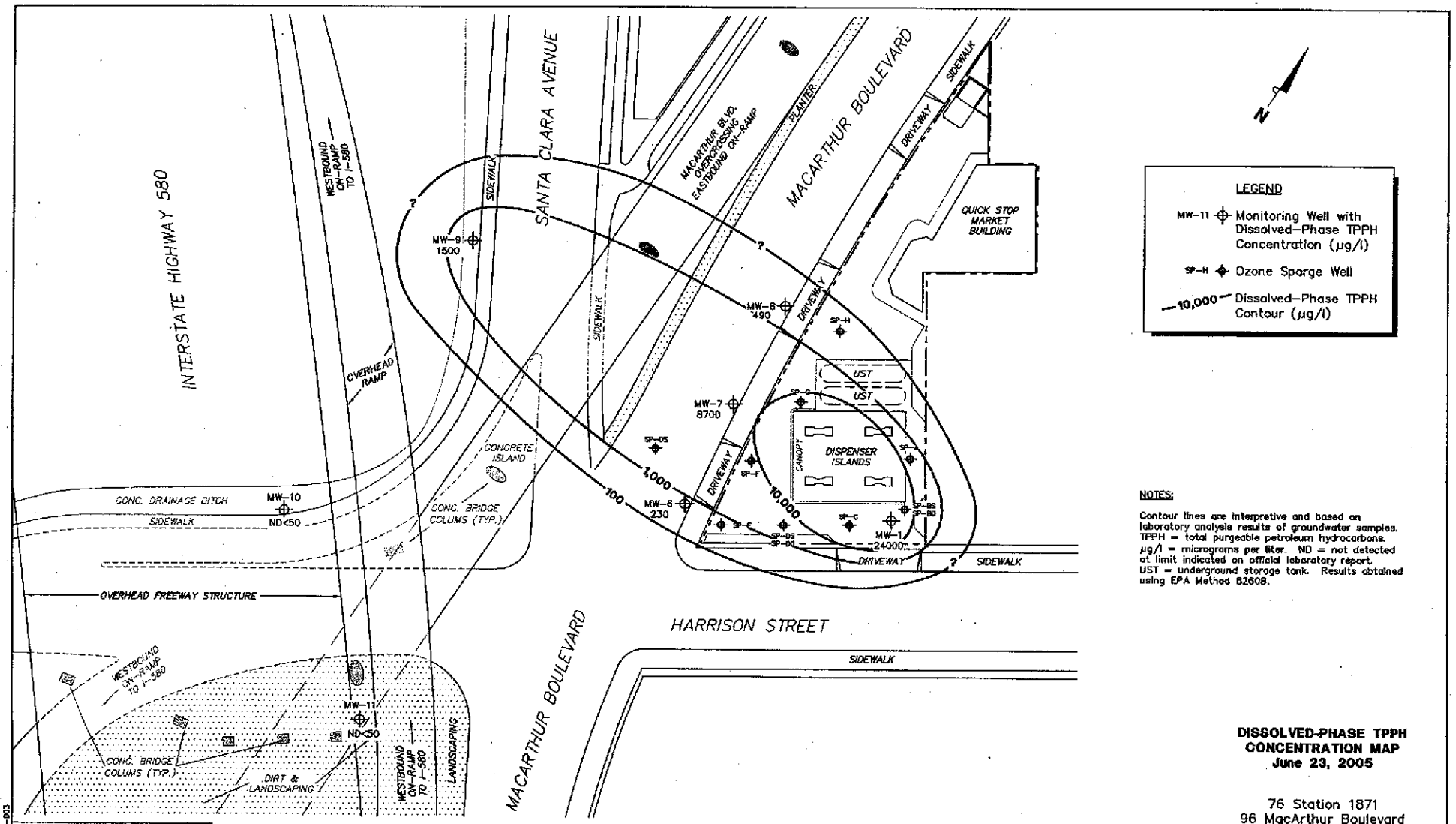
Attachments:

Figure 3 – Dissolved-Phase TPPH Concentration Map, June 23, 2005, from Second Quarter 2005 Quarterly Monitoring Report, April through June 2005, dated July 20, 2005 by TRC.

Figure 4 – Dissolved-Phase Benzene Concentration Map, June 23, 2005, from Second Quarter 2005 Quarterly Monitoring Report, April through June 2005, dated July 20, 2005 by TRC.

Figure 5 – Dissolved-Phase MTBE Concentration Map, June 23, 2005, from Second Quarter 2005 Quarterly Monitoring Report, April through June 2005, dated July 20, 2005 by TRC.

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




**DISSOLVED-PHASE TPPH CONCENTRATION MAP**
**June 23, 2005**

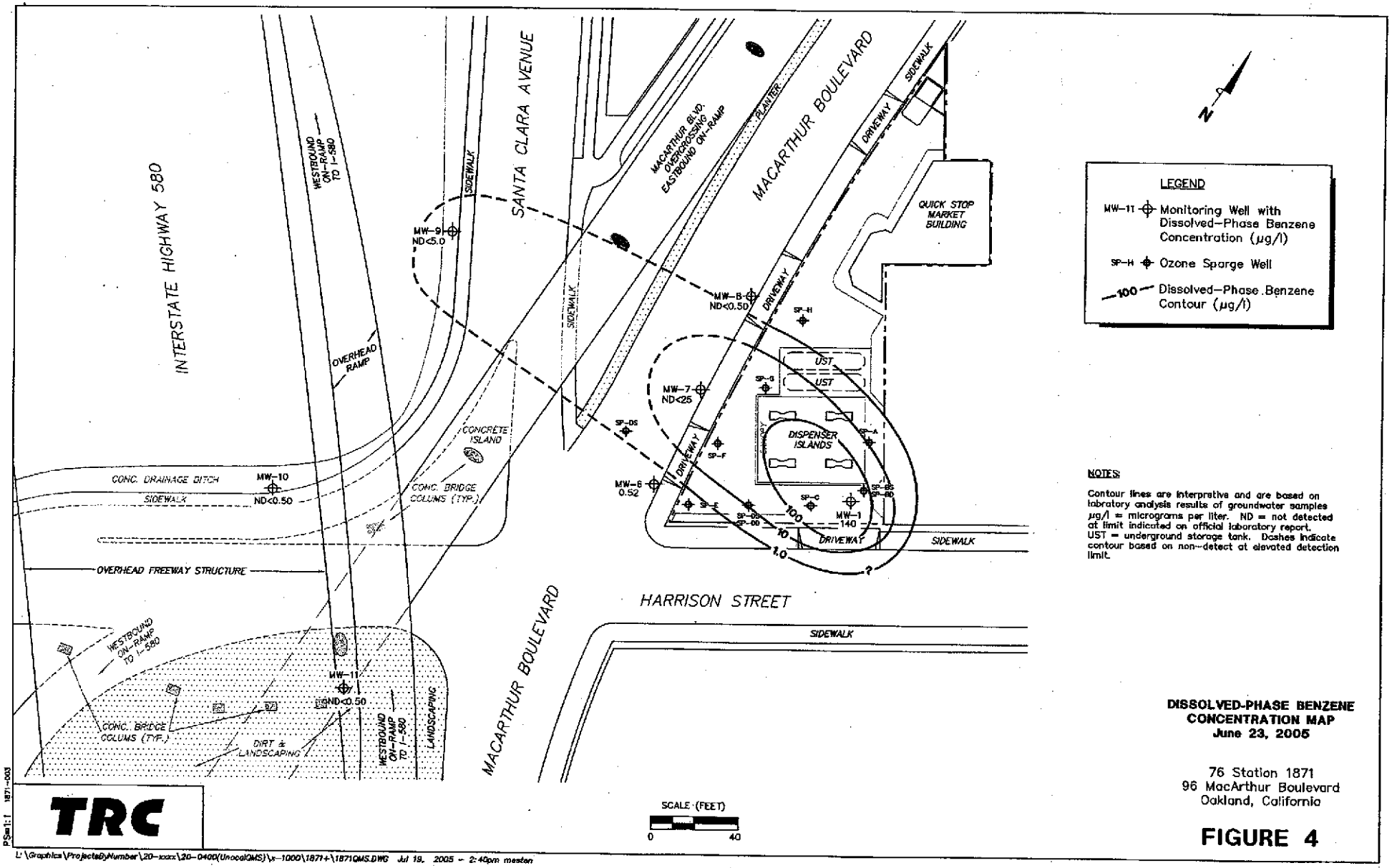
76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 3**

TRC

PS=1:1 1871-003

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-1000\1871+\1871QMS.DWG Jul 21, 2005 - 3:47pm pgunderson




**DISSOLVED-PHASE BENZENE CONCENTRATION MAP**
**June 23, 2005**

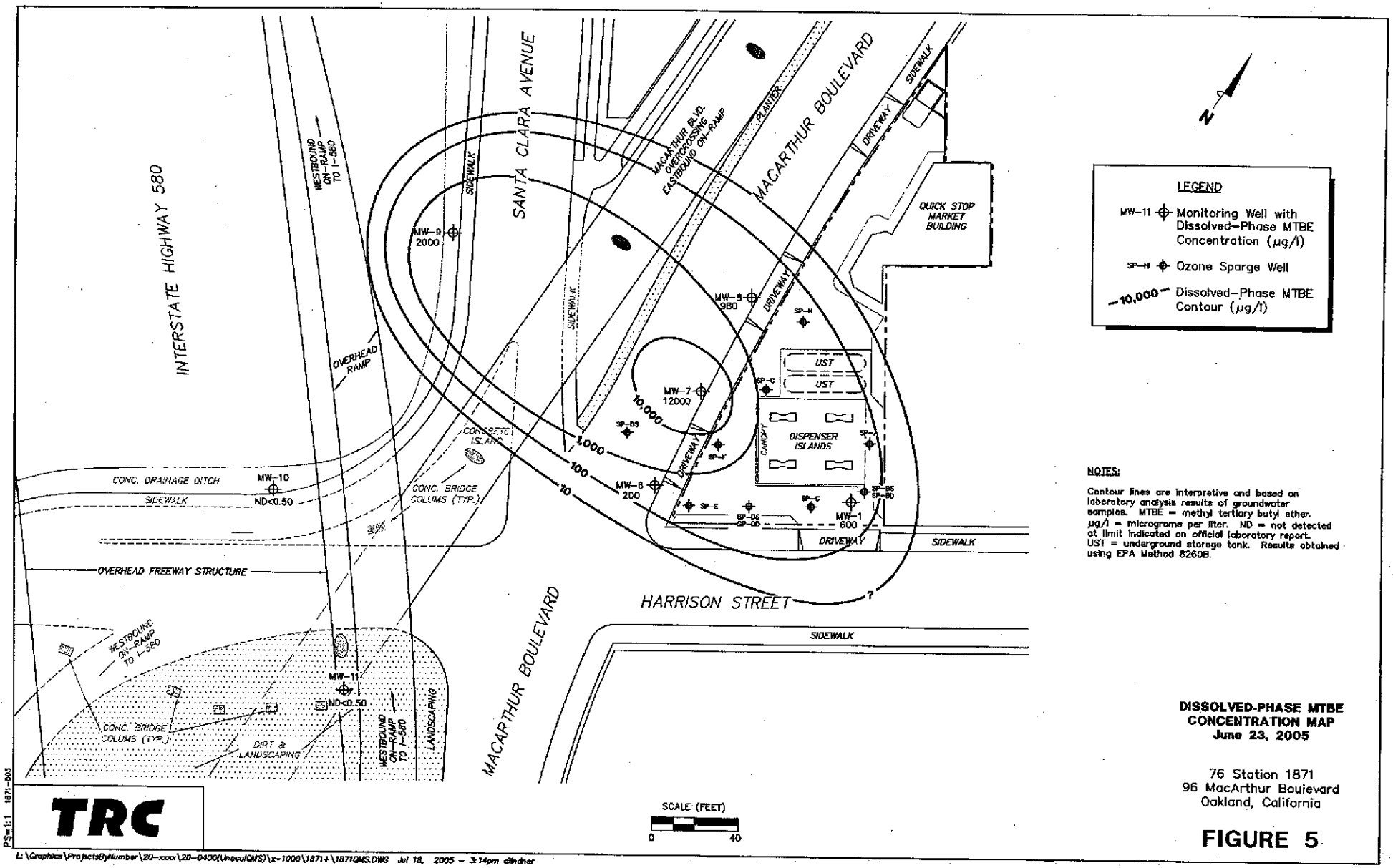
76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 4**

TRC

PSet1:1 1871-003

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-1000\1871+\1871QMS.DWG Jul 19, 2005 - 2:40pm mesten




**DISSOLVED-PHASE MTBE CONCENTRATION MAP**
**June 23, 2005**

76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 5**

TRC

PS=1:1 1871-005

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalOMS)\x-1000\1871+\1871QMS.DWG Jul 18, 2005 - 3:14pm dlindner

TRC

*Customer-Focused Solutions*

July 20, 2005

ConocoPhillips Company
76 Broadway
Sacramento, California 95818

ATTN: MR. THOMAS H. KOSEL

SITE: 76 STATION 1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

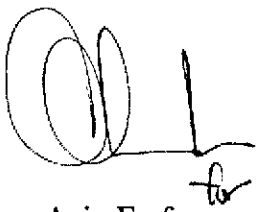
RE: QUARTERLY MONITORING REPORT
APRIL THROUGH JUNE 2005

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
QMS Operations Manager

CC: Mr. Roger Batra, TRC (3 copies)

Enclosures
20-0400/1871R07.QMS

21 Technology Drive • Irvine, California 92618
Telephone 949-727-9336 • Fax 949-727-7399

TRC

*Customer-Focused Solutions*

**QUARTERLY MONITORING REPORT**
**APRIL THROUGH JUNE 2005**

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
July 19, 2005

21 Technology Drive • Irvine, California 92618
Telephone 949-727-9336 • Fax 949-727-7399

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

# Summary of Gauging and Sampling Activities
## April 2005 through June 2005
## 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: **06/23/05**

### Sample Points

Groundwater wells: **1** onsite, **6** offsite Wells gauged: **7** Wells sampled: **7**
Purging method: **Diaphragm pump/bailer**
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: **6.46 feet** Maximum: **14.4 feet**
Average groundwater elevation (relative to available local datum): **70.22 feet**
Average change in groundwater elevation since previous event: **0.67 feet**
Interpreted groundwater gradient and flow direction:
Current event: ***see notes**
Previous event: **0.02 ft/ft, southwest (01/24/05)**

### Selected Laboratory Results

Wells with detected **Benzene:** **2** Wells above MCL (1.0 µg/l): **1**
Maximum reported benzene concentration: **140 µg/l (MW-1)**

Wells with **TPPH 8260B** **5** Maximum: **24,000 µg/l (MW-1)**
Wells with **MTBE** **5** Maximum: **12,000 µg/l (MW-7)**

### Notes:

*Groundwater Gradient flow is 0.03ft/ft West and 0.03ft/ft South.

# TABLES

# TABLE KEY

STANDARD ABREVIATIONS

| | | |
|---|---|---|
| -- | = | 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: Surface Elevation – Measured Depth to Water + (Dp x 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 re-survey.

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**

**June 23, 2005**

**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** | | **(Screen Interval in feet: 9.5-24.5)** | | | | | | | | | | | | |
| 06/23/05 | 86.99 | 13.39 | 0.00 | 73.60 | -0.41 | -- | 24000 | 140 | ND<25 | 1100 | 2900 | -- | 600 | |
| **MW-6** | | **(Screen Interval in feet: 5.0-25.0)** | | | | | | | | | | | | |
| 06/23/05 | 79.67 | 8.33 | 0.00 | 71.34 | 0.00 | -- | 230 | 0.52 | ND<0.50 | 3.6 | 9.6 | -- | 200 | |
| **MW-7** | | **(Screen Interval in feet: 5.0-25.0)** | | | | | | | | | | | | |
| 06/23/05 | 80.67 | 8.56 | 0.00 | 72.11 | -0.64 | -- | 8700 | ND<25 | ND<25 | ND<25 | ND<50 | -- | 12000 | |
| **MW-8** | | **(Screen Interval in feet: 5.0-25.0)** | | | | | | | | | | | | |
| 06/23/05 | 81.71 | 8.34 | 0.00 | 73.37 | 0.15 | -- | 490 | ND<0.50 | ND<0.50 | 1.5 | ND<1.0 | -- | 980 | |
| **MW-9** | | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | |
| 06/23/05 | 82.07 | 14.40 | 0.00 | 67.67 | 0.56 | -- | 1500 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 2000 | |
| **MW-10** | | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | |
| 06/23/05 | 74.98 | 6.46 | 0.00 | 68.52 | -0.06 | -- | ND<50 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | ND<0.50 | |
| **MW-11** | | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | |
| 06/23/05 | 77.31 | 12.37 | 0.00 | 64.94 | 5.07 | -- | 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 June 2005**

**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** | **(Screen Interval in feet: 9.5-24.5)** | | | | | | | | | | | | | |
| 11/03/92 | -- | -- | -- | -- | -- | 260000 | -- | 2300 | 4600 | 3700 | 17000 | -- | -- | |
| 01/25/93 | 81.18 | -- | 0.00 | -- | -- | 120000 | -- | 2100 | 4600 | 4900 | 22000 | -- | -- | |
| 04/29/93 | 81.18 | 13.71 | 0.00 | 67.47 | -- | 100000 | -- | 850 | 2000 | 4300 | 19000 | -- | -- | |
| 07/16/93 | 81.18 | 14.51 | 0.00 | 66.67 | -0.80 | 29000 | -- | 590 | 560 | 980 | 4200 | -- | -- | |
| 10/19/93 | 81.18 | 15.20 | 0.00 | 65.98 | -0.69 | 67000 | -- | 1400 | 2600 | 2900 | 5000 | -- | -- | |
| 01/20/94 | 81.18 | 15.17 | 0.00 | 66.01 | 0.03 | 92000 | -- | 1200 | 3000 | 3400 | 17000 | -- | -- | |
| 04/13/94 | 81.18 | 14.44 | 0.00 | 66.74 | 0.73 | 51000 | -- | 1000 | 2600 | 3200 | 15000 | -- | -- | |
| 07/13/94 | 81.18 | 14.88 | 0.00 | 66.30 | -0.44 | 35000 | -- | 550 | 150 | 1400 | 5700 | -- | -- | |
| 10/10/94 | 81.18 | 15.55 | 0.00 | 65.63 | -0.67 | 52000 | -- | 1000 | 810 | 3300 | 12000 | -- | -- | |
| 01/10/95 | 81.18 | 12.44 | 0.00 | 68.74 | 3.11 | 810 | -- | 16 | 18 | 59 | 250 | -- | -- | |
| 04/17/95 | 81.18 | 12.68 | 0.00 | 68.50 | -0.24 | 48000 | -- | 880 | 530 | 2500 | 11000 | -- | -- | |
| 07/24/95 | 81.18 | 13.97 | 0.00 | 67.21 | -1.29 | 48000 | -- | 1500 | 420 | 2700 | 9700 | -- | -- | |
| 10/23/95 | 81.18 | 14.85 | 0.00 | 66.33 | -0.88 | 47000 | -- | 780 | 210 | 2100 | 11000 | 270 | -- | |
| 01/18/96 | 81.18 | 14.21 | 0.00 | 66.97 | 0.64 | 30000 | -- | 1500 | 500 | 3500 | 13000 | 2400 | -- | |
| 04/18/96 | 86.24 | 13.40 | 0.00 | 72.84 | 5.87 | 66000 | -- | 2700 | 2200 | 3100 | 13000 | 57000 | -- | |
| 07/24/96 | 86.24 | 14.15 | 0.00 | 72.09 | -0.75 | 5600 | -- | 2100 | ND | 160 | 160 | 24000 | -- | |
| 10/24/96 | 86.24 | 14.85 | 0.00 | 71.39 | -0.70 | 110000 | -- | 7500 | 8000 | 3300 | 14000 | 58000 | -- | |
| 01/28/97 | 86.24 | 11.25 | 0.00 | 74.99 | 3.60 | 94000 | -- | 7700 | 19000 | 3100 | 15000 | 120000 | -- | |
| 07/29/97 | 86.24 | 14.67 | 0.00 | 71.57 | -3.42 | ND | -- | ND | ND | ND | ND | 70000 | -- | |
| 01/14/98 | 86.24 | 12.27 | 0.00 | 73.97 | 2.40 | 85000 | -- | 6100 | 10000 | 3000 | 17000 | 110000 | -- | |
| 07/01/98 | 86.24 | 14.32 | 0.00 | 71.92 | -2.05 | 110000 | -- | 8700 | 12000 | 2700 | 15000 | 110000 | -- | |
| 06/18/99 | 86.24 | 13.93 | 0.00 | 72.31 | 0.39 | 49000 | -- | 6900 | 6500 | 380 | 12000 | 72000 | 47000 | |
| 01/21/00 | 86.24 | 15.05 | 0.00 | 71.19 | -1.12 | 63700 | -- | 5520 | 2000 | 2640 | 13100 | 57100 | -- | |
| 07/10/00 | 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 June 2005**

**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** | | | | | | | | | | | | | | |
| 01/04/01 | 86.24 | 14.92 | 0.00 | 71.32 | -0.95 | 63900 | -- | 6270 | 784 | 2670 | 12900 | -- | 38100 | |
| 07/16/01 | 86.24 | 14.32 | 0.00 | 71.92 | 0.60 | 66000 | -- | 7100 | 330 | 2300 | 9800 | 36000 | 41000 | |
| 01/31/02 | 86.99 | 13.54 | 0.00 | 73.45 | 1.53 | 42000 | -- | 5800 | 1800 | 2000 | 8200 | 26000 | 26000 | |
| 04/11/02 | 86.99 | 13.64 | 0.00 | 73.35 | -0.10 | 58000 | -- | 2900 | 1200 | 1800 | 10000 | 19000 | -- | |
| 07/11/02 | 86.99 | 13.96 | 0.00 | 73.03 | -0.32 | -- | 5900 | 330 | ND<10 | 230 | 600 | -- | 3400 | |
| 10/15/02 | 86.99 | 14.71 | 0.00 | 72.28 | -0.75 | -- | 470 | 16 | ND<2.5 | 14 | 16 | -- | 390 | |
| 01/14/03 | 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 | |
| 04/16/03 | 86.99 | 13.18 | 0.00 | 73.81 | -0.41 | -- | 510 | 57 | 0.62 | 29 | 61 | -- | 160 | |
| 07/16/03 | 86.99 | 14.26 | 0.00 | 72.73 | -1.08 | -- | 27000 | 260 | 23 | 730 | 3200 | -- | 1200 | |
| 10/02/03 | 86.99 | 14.95 | 0.00 | 72.04 | -0.69 | -- | 45000 | 1400 | 32 | 2900 | 7600 | -- | 3200 | |
| 01/07/04 | 86.99 | 12.30 | 0.00 | 74.69 | 2.65 | -- | 34000 | 690 | 41 | 1600 | 5200 | -- | 2600 | |
| 04/02/04 | 86.99 | 13.18 | 0.00 | 73.81 | -0.88 | -- | 350 | 1.8 | ND<0.50 | 6.2 | 30 | -- | 19 | |
| 07/29/04 | 86.99 | 14.61 | 0.00 | 72.38 | -1.43 | -- | 41000 | 550 | ND<20 | 2000 | 6100 | -- | 1200 | |
| 11/24/04 | 86.99 | 14.98 | 0.00 | 72.01 | -0.37 | -- | 55000 | 910 | 28 | 3100 | 11000 | -- | 1600 | |
| 01/24/05 | 86.99 | 12.98 | 0.00 | 74.01 | 2.00 | -- | 24000 | 240 | ND<20 | 1100 | 3600 | -- | 1800 | |
| 06/23/05 | 86.99 | 13.39 | 0.00 | 73.60 | -0.41 | -- | 24000 | 140 | ND<25 | 1100 | 2900 | -- | 600 | |
| **MW-2** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |
| 11/03/92 | 76.61 | -- | -- | -- | -- | 140 | -- | 2.2 | ND | ND | 2.0 | -- | -- | |
| 01/25/93 | 76.61 | -- | -- | -- | -- | 2100 | -- | 56 | 1.1 | 90 | 140 | -- | -- | |
| 04/29/93 | 76.61 | 9.73 | 0.00 | 66.88 | -- | 1500 | -- | 290 | ND | 33 | 11 | -- | -- | |
| 07/16/93 | 76.61 | 10.17 | 0.00 | 66.44 | -0.44 | 510 | -- | 17 | 0.60 | 3.2 | 2.5 | -- | -- | |
| 10/19/93 | 76.61 | 11.18 | 0.00 | 65.43 | -1.01 | 670 | -- | 24 | 1.1 | 7.7 | 23 | -- | -- | |
| 01/20/94 | 76.61 | 11.12 | 0.00 | 65.49 | 0.06 | 820 | -- | 97 | ND | 12 | ND | -- | -- | |
| 04/13/94 | 76.61 | 10.12 | 0.00 | 66.49 | 1.00 | 550 | -- | 71 | ND | 5.1 | 1.3 | -- | -- | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-2 continued** | | | | | | | | | | | | | | |
| 07/13/94 | 76.61 | 10.86 | 0.00 | 65.75 | -0.74 | 2000 | -- | 490 | ND | 17 | 13 | -- | -- | |
| 10/10/94 | 76.61 | 11.48 | 0.00 | 65.13 | -0.62 | 2300 | -- | 340 | ND | 25 | ND | -- | -- | |
| 01/10/95 | 76.61 | 8.71 | 0.00 | 67.90 | 2.77 | 850 | -- | 3.8 | ND | 8.5 | 1.3 | -- | -- | |
| 04/17/95 | 76.61 | 8.90 | 0.00 | 67.71 | -0.19 | 1300 | -- | 4.7 | ND | 8.3 | 1.2 | -- | -- | |
| 07/24/95 | 76.61 | 9.94 | 0.00 | 66.67 | -1.04 | 960 | -- | 20 | ND | 4.2 | 6.2 | -- | -- | |
| 10/23/95 | 76.61 | 10.70 | 0.00 | 65.91 | -0.76 | ND | -- | ND | ND | ND | ND | 19 | -- | |
| 01/18/96 | 76.61 | 10.11 | 0.00 | 66.50 | 0.59 | 900 | -- | 300 | 86 | 7.6 | 18 | 4300 | -- | |
| 04/18/96 | 81.66 | 9.27 | 0.00 | 72.39 | 5.89 | 18000 | -- | 3600 | 680 | 890 | 4100 | 19000 | -- | |
| 07/24/96 | 81.66 | 10.02 | 0.00 | 71.64 | -0.75 | 100000 | -- | 13000 | 21000 | 2700 | 16000 | 120000 | -- | |
| 10/24/96 | 81.66 | 10.78 | 0.00 | 70.88 | -0.76 | 800 | -- | 110 | 17 | 11 | 20 | 20000 | -- | |
| 01/28/97 | 81.66 | 7.70 | 0.00 | 73.96 | 3.08 | 45000 | -- | 2400 | 2900 | 2000 | 7600 | 29000 | -- | |
| 07/29/97 | 81.66 | 10.28 | 0.00 | 71.38 | -2.58 | ND | -- | 1.2 | 0.72 | 0.63 | 0.62 | 17000 | -- | |
| 01/14/98 | 81.66 | 8.63 | 0.00 | 73.03 | 1.65 | 14000 | -- | 1000 | 150 | 790 | 3300 | 23000 | -- | |
| 07/01/98 | 81.66 | 9.53 | 0.00 | 72.13 | -0.90 | 2700 | -- | 100 | ND | 180 | 78 | 7100 | -- | |
| 06/18/99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Well was destroyed |
| **MW-3** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |
| 11/03/92 | 77.48 | -- | -- | -- | -- | 2100 | -- | 120 | 15 | 38 | 200 | -- | -- | |
| 01/25/93 | 77.48 | -- | -- | -- | -- | 2300 | -- | 80 | 1 | 55 | 52 | -- | -- | |
| 04/29/93 | 77.48 | 11.37 | 0.00 | 66.11 | -- | 4500 | -- | 1700 | ND | 200 | 140 | -- | -- | |
| 07/16/93 | 77.48 | 12.09 | 0.00 | 65.39 | -0.72 | 4000 | -- | 1100 | 28 | 52 | 70 | -- | -- | |
| 10/19/93 | 77.48 | 12.69 | 0.00 | 64.79 | -0.60 | 3800 | -- | 42 | ND | 50 | 56 | -- | -- | |
| 01/20/94 | 77.48 | 12.65 | 0.00 | 64.83 | 0.04 | 4200 | -- | 11 | ND | 21 | 15 | -- | -- | |
| 04/13/94 | 77.48 | 12.02 | 0.00 | 65.46 | 0.63 | 4200 | -- | 210 | ND | 36 | 53 | -- | -- | |
| 07/13/94 | 77.48 | 12.46 | 0.00 | 65.02 | -0.44 | 1800 | -- | 16 | 16 | ND | 21 | -- | -- | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-3 continued** | | | | | | | | | | | | | | |
| 10/10/94 | 77.48 | 12.98 | 0.00 | 64.50 | -0.52 | 4300 | -- | 11 | ND | 12 | ND | -- | -- | |
| 01/10/95 | 77.48 | 10.42 | 0.00 | 67.06 | 2.56 | 310 | -- | 4.6 | ND | 3.5 | 2.1 | -- | -- | |
| 04/17/95 | 77.48 | 10.42 | 0.00 | 67.06 | 0.00 | 7800 | -- | ND | 4.6 | 300 | 450 | -- | -- | |
| 07/24/95 | 77.48 | 11.76 | 0.00 | 65.72 | -1.34 | 3200 | -- | 170 | ND | 22 | 16 | -- | -- | |
| 10/23/95 | 77.48 | 12.50 | 0.00 | 64.98 | -0.74 | 3900 | -- | 55 | ND | 19 | 11 | 4500 | -- | |
| 01/18/96 | 77.48 | 11.79 | 0.00 | 65.69 | 0.71 | 2200 | -- | 270 | 33 | 26 | 18 | 5500 | -- | |
| 04/18/96 | 82.55 | 11.30 | 0.00 | 71.25 | 5.56 | 6000 | -- | 1800 | ND | 100 | 230 | 48000 | -- | |
| 07/24/96 | 82.55 | 12.17 | 0.00 | 70.38 | -0.87 | ND | -- | 2500 | ND | ND | ND | 71000 | -- | |
| 10/24/96 | 82.55 | 12.65 | 0.00 | 69.90 | -0.48 | 3800 | -- | 660 | ND | 15 | ND | 65000 | -- | |
| 01/28/97 | 82.55 | 9.50 | 0.00 | 73.05 | 3.15 | 4400 | -- | 250 | 13 | 87 | 47 | 54000 | -- | |
| 07/29/97 | 82.55 | 11.99 | 0.00 | 70.56 | -2.49 | ND | -- | 3500 | ND | 220 | ND | 75000 | -- | |
| 01/14/98 | 82.55 | 10.30 | 0.00 | 72.25 | 1.69 | ND | -- | 430 | ND | 100 | 380 | 37000 | -- | |
| 07/01/98 | 82.55 | 11.70 | 0.00 | 70.85 | -1.40 | ND | -- | 430 | ND | ND | ND | 45000 | -- | |
| 06/18/99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Well was destroyed |
| **MW-4** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |
| 04/18/96 | 82.04 | 9.83 | 0.00 | 72.21 | -- | ND | -- | 630 | ND | ND | ND | 18000 | -- | |
| 07/24/96 | 82.04 | 10.47 | 0.00 | 71.57 | -0.64 | ND | -- | ND | ND | ND | 5.2 | 3900 | -- | |
| 10/24/96 | 82.04 | 11.14 | 0.00 | 70.90 | -0.67 | ND | -- | ND | ND | ND | ND | 6300 | -- | |
| 01/28/97 | 82.04 | 7.94 | 0.00 | 74.10 | 3.20 | 1200 | -- | 490 | ND | 17 | 6.8 | 16000 | -- | |
| 07/29/97 | 82.04 | 10.86 | 0.00 | 71.18 | -2.92 | 50 | -- | 1.5 | 0.61 | 0.73 | 0.78 | 15000 | -- | |
| 01/14/98 | 82.04 | 8.73 | 0.00 | 73.31 | 2.13 | ND | -- | ND | ND | ND | ND | 5200 | -- | |
| 07/01/98 | 82.04 | 10.51 | 0.00 | 71.53 | -1.78 | ND | -- | ND | ND | ND | ND | 640 | -- | |
| 06/18/99 | 82.04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Well was destroyed |
| **MW-5** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-5 continued** | | | | | | | | | | | | | | |
| 04/18/96 | 81.80 | 9.65 | 0.00 | 72.15 | -- | 31000 | -- | 5500 | 1400 | 1700 | 8100 | 66000 | -- | |
| 07/24/96 | 81.80 | 10.80 | 0.00 | 71.00 | -1.15 | 32000 | -- | 6400 | ND | 1600 | 6100 | 120000 | -- | |
| 10/24/96 | 81.80 | 11.40 | 0.00 | 70.40 | -0.60 | 17000 | -- | 6900 | ND | 970 | 130 | 84000 | -- | |
| 01/28/97 | 81.80 | 7.76 | 0.00 | 74.04 | 3.64 | 19000 | -- | 6100 | 62 | 82 | 310 | 160000 | -- | |
| 07/29/97 | 81.80 | 11.58 | 0.00 | 70.22 | -3.82 | ND | -- | ND | ND | ND | ND | 71000 | -- | |
| 01/14/98 | 81.80 | 9.08 | 0.00 | 72.72 | 2.50 | ND | -- | 3600 | ND | ND | ND | 80000 | -- | |
| 07/01/98 | 81.80 | 11.25 | 0.00 | 70.55 | -2.17 | 6400 | -- | 2100 | 21 | 120 | 330 | 61000 | -- | |
| 06/18/99 | 81.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Well was destroyed |
| **MW-6** | **(Screen Interval in feet: 5.0-25.0)** | | | | | | | | | | | | | |
| 06/18/99 | 78.91 | 9.30 | 0.00 | 69.61 | -- | 2100 | -- | 21 | 29 | ND | 47 | 97000 | 71000 | |
| 01/21/00 | 78.91 | 9.37 | 0.00 | 69.54 | -0.07 | 1880 | -- | 143 | 31.2 | 106 | 196 | 41200 | 48800 | |
| 07/10/00 | 78.91 | 8.94 | 0.00 | 69.97 | 0.43 | 5710 | -- | 869 | 209 | 301 | 1430 | 22200 | 19500 | |
| 01/04/01 | 78.91 | 9.21 | 0.00 | 69.70 | -0.27 | ND | -- | ND | ND | ND | ND | -- | 9510 | |
| 07/16/01 | 78.91 | 9.42 | 0.00 | 69.49 | -0.21 | 4800 | -- | 200 | 21 | 150 | 440 | 29000 | 34000 | |
| 01/31/02 | 78.91 | 8.50 | 0.00 | 70.41 | 0.92 | 12000 | -- | 250 | 92 | 500 | 1500 | 26000 | 31000 | |
| 04/11/02 | 79.67 | 9.08 | 0.00 | 70.59 | 0.18 | 3600 | -- | 42 | 32 | 39 | 280 | 120000 | -- | |
| 07/11/02 | 79.67 | 9.70 | 0.00 | 69.97 | -0.62 | -- | 12000 | ND<100 | ND<100 | ND<100 | ND<200 | -- | 15000 | |
| 10/15/02 | 79.67 | 9.96 | 0.00 | 69.71 | -0.26 | -- | 1300 | ND<10 | ND<10 | ND<10 | ND<20 | -- | 3200 | |
| 01/14/03 | 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 | |
| 04/16/03 | 79.67 | 8.21 | 0.00 | 71.46 | 0.10 | -- | 270 | ND<0.50 | ND<0.50 | ND<0.50 | 1.3 | -- | 15 | |
| 07/16/03 | 79.67 | 9.43 | 0.00 | 70.24 | -1.22 | -- | 290 | 39 | 0.60 | ND<0.50 | 15 | -- | 150 | |
| 10/02/03 | 79.67 | 9.92 | 0.00 | 69.75 | -0.49 | -- | 200 | ND<1.0 | ND<1.0 | ND<1.0 | ND<2.0 | -- | 220 | |
| 01/07/04 | 79.67 | 8.08 | 0.00 | 71.59 | 1.84 | -- | 140 | 2.4 | ND<1.0 | 8.6 | 13 | -- | 86 | |
| 04/02/04 | 79.67 | 8.63 | 0.00 | 71.04 | -0.55 | -- | 3200 | ND<20 | ND<20 | ND<20 | ND<40 | -- | 5900 | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-6 continued** | | | | | | | | | | | | | | |
| 07/29/04 | 79.67 | 9.75 | 0.00 | 69.92 | -1.12 | -- | 170 | ND<1.0 | ND<1.0 | ND<1.0 | ND<2.0 | -- | 160 | |
| 11/24/04 | 79.67 | 9.59 | 0.00 | 70.08 | 0.16 | -- | 80 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 45 | |
| 01/24/05 | 79.67 | 8.33 | 0.00 | 71.34 | 1.26 | -- | 100 | 1.1 | ND<0.50 | 0.60 | 1.1 | -- | 40 | |
| 06/23/05 | 79.67 | 8.33 | 0.00 | 71.34 | 0.00 | -- | 230 | 0.52 | ND<0.50 | 3.6 | 9.6 | -- | 200 | |
| **MW-7** | **(Screen Interval in feet: 5.0-25.0)** | | | | | | | | | | | | | |
| 06/18/99 | 79.92 | 8.70 | 0.00 | 71.22 | -- | ND | -- | ND | ND | ND | ND | 16000 | 13000 | |
| 01/21/00 | 79.92 | 9.30 | 0.00 | 70.62 | -0.60 | ND | -- | ND | ND | ND | ND | 12300 | 18200 | |
| 07/10/00 | 79.92 | 8.72 | 0.00 | 71.20 | 0.58 | ND | -- | ND | ND | ND | ND | 16900 | 13800 | |
| 01/04/01 | 79.92 | 9.17 | 0.00 | 70.75 | -0.45 | ND | -- | ND | ND | ND | 0.719 | -- | 37.3 | |
| 07/16/01 | 79.92 | 9.02 | 0.00 | 70.90 | 0.15 | ND | -- | ND | ND | ND | ND | 7200 | 4700 | |
| 01/31/02 | 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 | |
| 04/11/02 | 80.67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Inaccessible |
| 07/11/02 | 80.67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Inaccessible |
| 10/15/02 | 80.67 | 9.81 | 0.00 | 70.86 | -- | -- | ND<5000 | ND<50 | ND<50 | ND<50 | ND<100 | -- | 12000 | |
| 01/14/03 | 80.67 | 7.89 | 0.00 | 72.78 | 1.92 | -- | ND<25000 | ND<250 | ND<250 | ND<250 | ND<500 | -- | 33000 | |
| 04/16/03 | 80.67 | 8.04 | 0.00 | 72.63 | -0.15 | -- | ND<25000 | ND<250 | ND<250 | ND<250 | ND<500 | -- | 37000 | |
| 07/16/03 | 80.67 | 9.19 | 0.00 | 71.48 | -1.15 | -- | 25000 | ND<250 | ND<250 | ND<250 | ND<500 | -- | 38000 | |
| 10/02/03 | 80.67 | 9.89 | 0.00 | 70.78 | -0.70 | -- | 17000 | ND<100 | ND<100 | ND<100 | ND<200 | -- | 22000 | |
| 01/07/04 | 80.67 | 7.27 | 0.00 | 73.40 | 2.62 | -- | ND<20000 | ND<200 | 460 | ND<200 | 540 | -- | 19000 | |
| 04/02/04 | 80.67 | 8.09 | 0.00 | 72.58 | -0.82 | -- | 3400 | ND<20 | ND<20 | ND<20 | ND<40 | -- | 5100 | |
| 07/29/04 | 80.67 | 9.40 | 0.00 | 71.27 | -1.31 | -- | 7400 | ND<50 | ND<50 | ND<50 | ND<100 | -- | 11000 | |
| 11/24/04 | 80.67 | 9.65 | 0.00 | 71.02 | -0.25 | -- | 6200 | ND<50 | ND<50 | ND<50 | ND<100 | -- | 6800 | |
| 01/24/05 | 80.67 | 7.92 | 0.00 | 72.75 | 1.73 | -- | ND<5000 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 13000 | |
| 06/23/05 | 80.67 | 8.56 | 0.00 | 72.11 | -0.64 | -- | 8700 | ND<25 | ND<25 | ND<25 | ND<50 | -- | 12000 | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-8** | **(Screen Interval in feet: 5.0-25.0)** | | | | | | | | | | | | | |
| 06/18/99 | 80.96 | 9.10 | 0.00 | 71.86 | -- | ND | -- | ND | ND | ND | ND | 290 | 160 | |
| 01/21/00 | 80.96 | 10.00 | 0.00 | 70.96 | -0.90 | ND | -- | ND | ND | ND | 1.09 | 224 | 221 | |
| 07/10/00 | 80.96 | 7.94 | 0.00 | 73.02 | 2.06 | ND | -- | ND | ND | ND | ND | 234 | 223 | |
| 01/04/01 | 80.96 | 9.76 | 0.00 | 71.20 | -1.82 | 3790 | -- | 141 | 8.92 | 128 | 375 | -- | 34200 | |
| 07/16/01 | 80.96 | 9.15 | 0.00 | 71.81 | 0.61 | ND | -- | ND | ND | ND | ND | 66 | 70 | |
| 01/31/02 | 80.96 | 7.99 | 0.00 | 72.97 | 1.16 | 5900 | -- | 86 | ND<10 | 630 | 390 | 670 | 700 | |
| 04/11/02 | 81.71 | 9.00 | 0.00 | 72.71 | -0.26 | 250 | -- | 2.0 | ND<0.50 | 38 | 2.2 | 410 | -- | |
| 07/11/02 | 81.71 | 9.60 | 0.00 | 72.11 | -0.60 | -- | 110 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 120 | |
| 10/15/02 | 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 | |
| 01/14/03 | 81.71 | 8.63 | 0.00 | 73.08 | 1.97 | -- | ND<250 | 2.6 | ND<2.5 | 18 | ND<5.0 | -- | 430 | |
| 04/16/03 | 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 | |
| 07/16/03 | 81.71 | 9.63 | 0.00 | 72.08 | -0.65 | -- | 110 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 140 | |
| 10/02/03 | 81.71 | 10.41 | 0.00 | 71.30 | -0.78 | -- | 75 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 78 | |
| 01/07/04 | 81.71 | 8.21 | 0.00 | 73.50 | 2.20 | -- | ND<5000 | ND<50 | ND<50 | ND<50 | 340 | -- | 3700 | |
| 04/02/04 | 81.71 | 8.51 | 0.00 | 73.20 | -0.30 | -- | 3000 | ND<20 | ND<20 | ND<20 | ND<40 | -- | 5200 | |
| 07/29/04 | 81.71 | 9.78 | 0.00 | 71.93 | -1.27 | -- | 3200 | ND<25 | ND<25 | ND<25 | ND<50 | -- | 5500 | |
| 11/24/04 | 81.71 | 10.19 | 0.00 | 71.52 | -0.41 | -- | 2100 | ND<10 | ND<10 | ND<10 | ND<20 | -- | 2400 | |
| 01/24/05 | 81.71 | 8.49 | 0.00 | 73.22 | 1.70 | -- | ND<2500 | 4.0 | 0.52 | ND<0.50 | 29 | -- | 1800 | |
| 06/23/05 | 81.71 | 8.34 | 0.00 | 73.37 | 0.15 | -- | 490 | ND<0.50 | ND<0.50 | 1.5 | ND<1.0 | -- | 980 | |
| **MW-9** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |
| 01/31/02 | 82.07 | 14.72 | 0.00 | 67.35 | -- | ND<50 | -- | ND<0.50 | ND<0.50 | ND<0.50 | ND<0.50 | 680 | 910 | |
| 04/11/02 | 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 | -- | |
| 07/11/02 | 82.07 | 15.39 | 0.00 | 66.68 | -0.54 | -- | 580 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 580 | |
| 10/15/02 | 82.07 | 16.16 | 0.00 | 65.91 | -0.77 | -- | 570 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 1400 | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-9 continued** | | | | | | | | | | | | | | |
| 01/14/03 | 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 | |
| 04/16/03 | 82.07 | 14.51 | 0.00 | 67.56 | 0.24 | -- | ND<500 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 860 | |
| 07/16/03 | 82.07 | 15.54 | 0.00 | 66.53 | -1.03 | -- | ND<2500 | ND<25 | ND<25 | ND<25 | ND<50 | -- | 1300 | |
| 10/02/03 | 82.07 | 16.28 | 0.00 | 65.79 | -0.74 | -- | 820 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 990 | |
| 01/07/04 | 82.07 | 14.65 | 0.00 | 67.42 | 1.63 | -- | ND<1000 | ND<10 | ND<10 | ND<10 | ND<20 | -- | 1200 | |
| 04/02/04 | 82.07 | 15.08 | 0.00 | 66.99 | -0.43 | -- | 510 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 850 | |
| 07/29/04 | 82.07 | 15.81 | 0.00 | 66.26 | -0.73 | -- | ND<1000 | ND<10 | ND<10 | ND<10 | ND<20 | -- | 1300 | |
| 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 | |
| 01/24/05 | 82.07 | 14.96 | 0.00 | 67.11 | 1.29 | -- | ND<1000 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 2300 | |
| 06/23/05 | 82.07 | 14.40 | 0.00 | 67.67 | 0.56 | -- | 1500 | ND<5.0 | ND<5.0 | ND<5.0 | ND<10 | -- | 2000 | |
| **MW-10** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |
| 01/31/02 | 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 | |
| 04/11/02 | 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 | -- | |
| 07/11/02 | 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 | |
| 10/15/02 | 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 | |
| 01/14/03 | 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 | |
| 04/16/03 | 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 | |
| 07/16/03 | 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 | |
| 10/02/03 | 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 | |
| 01/07/04 | 74.98 | 6.22 | 0.00 | 68.76 | 1.41 | -- | 54 | ND<0.50 | ND<0.50 | 1.3 | 4.5 | -- | ND<2.0 | |
| 04/02/04 | 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 | |
| 07/29/04 | 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 | |
| 11/24/04 | 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 | |
| 01/24/05 | 74.98 | 6.40 | 0.00 | 68.58 | 1.15 | -- | ND<50 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | 0.71 | |

**Table 2**

**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**

**November 1992 Through June 2005**

**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-10** | **continued** | | | | | | | | | | | | | |
| 06/23/05 | 74.98 | 6.46 | 0.00 | 68.52 | -0.06 | -- | ND<50 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | ND<0.50 | |
| **MW-11** | **(Screen Interval in feet: DNA)** | | | | | | | | | | | | | |
| 01/31/02 | 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 | |
| 04/11/02 | 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 | -- | |
| 07/11/02 | 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 | |
| 10/15/02 | 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 | |
| 01/14/03 | 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 | |
| 04/16/03 | 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 | |
| 07/16/03 | 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 | |
| 10/02/03 | 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 | |
| 01/07/04 | 77.31 | 16.20 | 0.00 | 61.11 | -3.24 | -- | 63 | ND<0.50 | ND<0.50 | 0.68 | 2.2 | -- | ND<2.0 | |
| 04/02/04 | 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 | |
| 07/29/04 | 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 | |
| 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 | |
| 01/24/05 | 77.31 | 17.44 | 0.00 | 59.87 | -0.72 | -- | ND<50 | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | -- | ND<0.50 | |
| 06/23/05 | 77.31 | 12.37 | 0.00 | 64.94 | 5.07 | -- | 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 | EDC | EDB | DO | TAME 8260B | TBA 8260B | DIPE 8260B | ETBE 8260B | ORP | pH | Ethanol 8260B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (µg/l) | (µg/l) | (µg/l) | (mg/l) | (µg/l) | (µg/l) | (µg/l) | (µg/l) | (mV) | (pH) | (µg/l) |
| **MW-1** | | | | | | | | | | | |
| 06/18/99 | -- | -- | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 07/16/01 | -- | -- | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 01/14/03 | -- | -- | ND<2.0 | -- | ND<2.0 | ND<100 | ND<2.0 | ND<2.0 | -- | -- | ND<500 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<10000 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<25000 |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<20000 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2000 |
| 11/24/04 | -- | -- | -- | 3.08 | -- | -- | -- | -- | -39 | 6.58 | ND<2000 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2000 |
| 06/23/05 | -- | -- | -- | 6.19 | -- | -- | -- | -- | -116 | -- | ND<50000 |
| **MW-4** | | | | | | | | | | | |
| 04/18/96 | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07/24/96 | ND | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10/24/96 | ND | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01/28/97 | 210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07/29/97 | ND | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01/14/98 | ND | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07/01/98 | ND | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-6** | | | | | | | | | | | |
| 06/18/99 | -- | ND | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 07/16/01 | -- | ND | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 07/11/02 | -- | ND<100 | ND<100 | -- | ND<100 | ND<1000 | ND<200 | ND<100 | -- | -- | ND<5000 |
| 01/14/03 | -- | ND<2.0 | ND<2.0 | -- | ND<2.0 | ND<100 | ND<2.0 | ND<2.0 | -- | -- | ND<500 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<1000 |

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

| Date Sampled | TPH-D | EDC | EDB | DO | TAME 8260B | TBA 8260B | DIPE 8260B | ETBE 8260B | ORP | pH | Ethanol 8260B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (µg/l) | (µg/l) | (µg/l) | (mg/l) | (µg/l) | (µg/l) | (µg/l) | (µg/l) | (mV) | (pH) | (µg/l) |
| **MW-6 continued** | | | | | | | | | | | |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<1000 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2000 |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<100 |
| 11/24/04 | -- | -- | -- | 2.81 | -- | -- | -- | -- | -12 | 6.99 | ND<50 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 06/23/05 | -- | -- | -- | 1.80 | -- | -- | -- | -- | 72 | -- | ND<1000 |
| **MW-7** | | | | | | | | | | | |
| 06/18/99 | -- | ND | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 07/16/01 | -- | ND | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 01/14/03 | -- | ND<1000 | ND<1000 | -- | ND<1000 | ND<50000 | ND<1000 | ND<1000 | -- | -- | ND<250000 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<250000 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<100000 |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<200000 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2000 |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<5000 |
| 11/24/04 | -- | -- | -- | 1.99 | -- | -- | -- | -- | -24 | 6.60 | ND<5000 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<5000 |
| 06/23/05 | -- | -- | -- | 1.54 | -- | -- | -- | -- | -38 | -- | ND<50000 |
| **MW-8** | | | | | | | | | | | |
| 06/18/99 | -- | ND | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 07/16/01 | -- | ND | ND | -- | ND | ND | ND | ND | -- | -- | ND |
| 01/14/03 | -- | ND<10 | ND<10 | -- | ND<10 | ND<500 | ND<10 | ND<10 | -- | -- | ND<2500 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50000 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2000 |

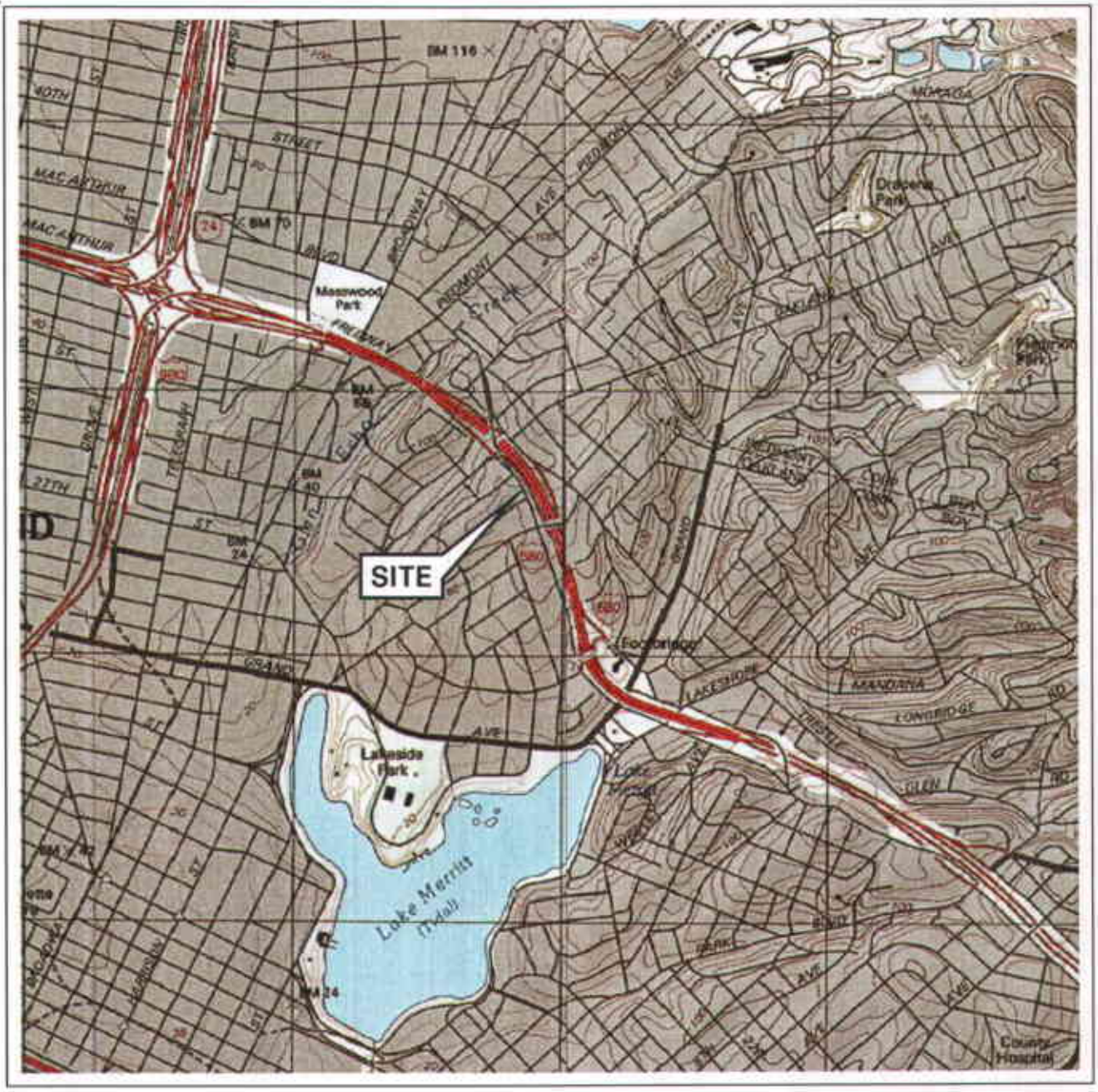
**Table 3**
**ADDITIONAL ANALYTICAL RESULTS**
**76 Station 1871**

| Date Sampled | TPH-D | EDC | EDB | DO | TAME 8260B | TBA 8260B | DIPE 8260B | ETBE 8260B | ORP | pH | Ethanol 8260B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (µg/l) | (µg/l) | (µg/l) | (mg/l) | (µg/l) | (µg/l) | (µg/l) | (µg/l) | (mV) | (pH) | (µg/l) |
| **MW-8 continued** | | | | | | | | | | | |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2500 |
| 11/24/04 | -- | -- | -- | 2.71 | -- | -- | -- | -- | -36 | 6.67 | ND<1000 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<2500 |
| 06/23/05 | -- | -- | -- | 1.97 | -- | -- | -- | -- | 52 | -- | ND<1000 |
| **MW-9** | | | | | | | | | | | |
| 01/31/02 | -- | ND<7.1 | ND<7.1 | -- | ND<7.1 | ND<140 | ND<7.1 | ND<7.1 | -- | -- | ND<3600 |
| 01/14/03 | -- | ND<8.0 | ND<8.0 | -- | ND<8.0 | ND<400 | ND<8.0 | ND<8.0 | -- | -- | ND<2000 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<25000 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<5000 |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<10000 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<1000 |
| 11/24/04 | -- | -- | -- | 3.24 | -- | -- | -- | -- | -67 | 6.47 | ND<500 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<1000 |
| 06/23/05 | -- | -- | -- | 1.56 | -- | -- | -- | -- | -142 | -- | ND<10000 |
| **MW-10** | | | | | | | | | | | |
| 01/31/02 | -- | ND<1.0 | ND<1.0 | -- | ND<1.0 | ND<20 | ND<1.0 | ND<1.0 | -- | -- | ND<500 |
| 01/14/03 | -- | ND<2.0 | ND<2.0 | -- | ND<2.0 | ND<100 | ND<2.0 | ND<2.0 | -- | -- | ND<500 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 11/24/04 | -- | -- | -- | 2.59 | -- | -- | -- | -- | -29 | 6.89 | ND<50 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 06/23/05 | -- | -- | -- | 1.63 | -- | -- | -- | -- | 42 | -- | ND<1000 |

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

| Date Sampled | TPH-D | EDC | EDB | DO | TAME 8260B | TBA 8260B | DIPE 8260B | ETBE 8260B | ORP | pH | Ethanol 8260B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (µg/l) | (µg/l) | (µg/l) | (mg/l) | (µg/l) | (µg/l) | (µg/l) | (µg/l) | (mV) | (pH) | (µg/l) |
| **MW-11** | | | | | | | | | | | |
| 01/31/02 | -- | ND<1.0 | ND<1.0 | -- | ND<1.0 | ND<20 | ND<1.0 | ND<1.0 | -- | -- | ND<500 |
| 01/14/03 | -- | ND<2.0 | ND<2.0 | -- | ND<2.0 | ND<100 | ND<2.0 | ND<2.0 | -- | -- | ND<500 |
| 07/16/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 10/02/03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 01/07/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<500 |
| 04/02/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 07/29/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 11/24/04 | -- | -- | -- | 3.85 | -- | -- | -- | -- | 143 | 6.75 | ND<50 |
| 01/24/05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ND<50 |
| 06/23/05 | -- | -- | -- | 2.13 | -- | -- | -- | -- | 80 | -- | ND<1000 |

# FIGURES




SOURCE:

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

**VICINITY MAP**

76 Station 1871
96 MacArthur Boulevard
Oakland, California

# FIGURE 1

TRC

PS = 1:1

Graphics on Ir1(i:)\VICINITY MAPS\1871vm.dwg 11/17/03 blw

INTERSTATE HIGHWAY 580

WESTBOUND ON-RAMP TO I-580

OVERHEAD RAMP

SIDEWALK

SANTA CLARA AVENUE

MACARTHUR BLVD. OVERCROSSING EASTBOUND ON-RAMP

PLANTER

MACARTHUR BOULEVARD

DRIVEWAY

SIDEWALK

QUICK STOP MARKET BUILDING

MW-9
67.67

MW-8
73.37

SP-H

DRIVEWAY

UST

UST

SP-G

MW-7
72.11

SP-05

SP-F

DISPENSER ISLANDS

SP-A

DRIVEWAY

MW-6
71.34

SP-E

SP-DS
SP-DD

SP-C

SP-BS
SP-BD

MW-1
73.60

DRIVEWAY

SIDEWALK

MW-10
68.52

CONC. DRAINAGE DITCH

SIDEWALK

CONC. BRIDGE COLUMNS (TYP.)

OVERHEAD FREEWAY STRUCTURE

HARRISON STREET

73.00

71.00

SIDEWALK

69.00

67.00

65.00

MW-11
64.94

WESTBOUND ON-RAMP TO I-580

LANDSCAPING

MACARTHUR BOULEVARD

CONC. BRIDGE COLUMNS (TYP.)

DIRT & LANDSCAPING

SCALE (FEET)

0 40

PS=1:1 1871-003

TRC

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-1000\1871+\1871QMS.DWG Jul 21, 2005 - 3:42pm pgunderson

N

LEGEND

MW-11 ⊕ Monitoring Well with Groundwater Elevation (feet)

SP-H ⊕ Ozone Sparge Well

73.00 — Groundwater Elevation Contour

General Direction of Groundwater Flow

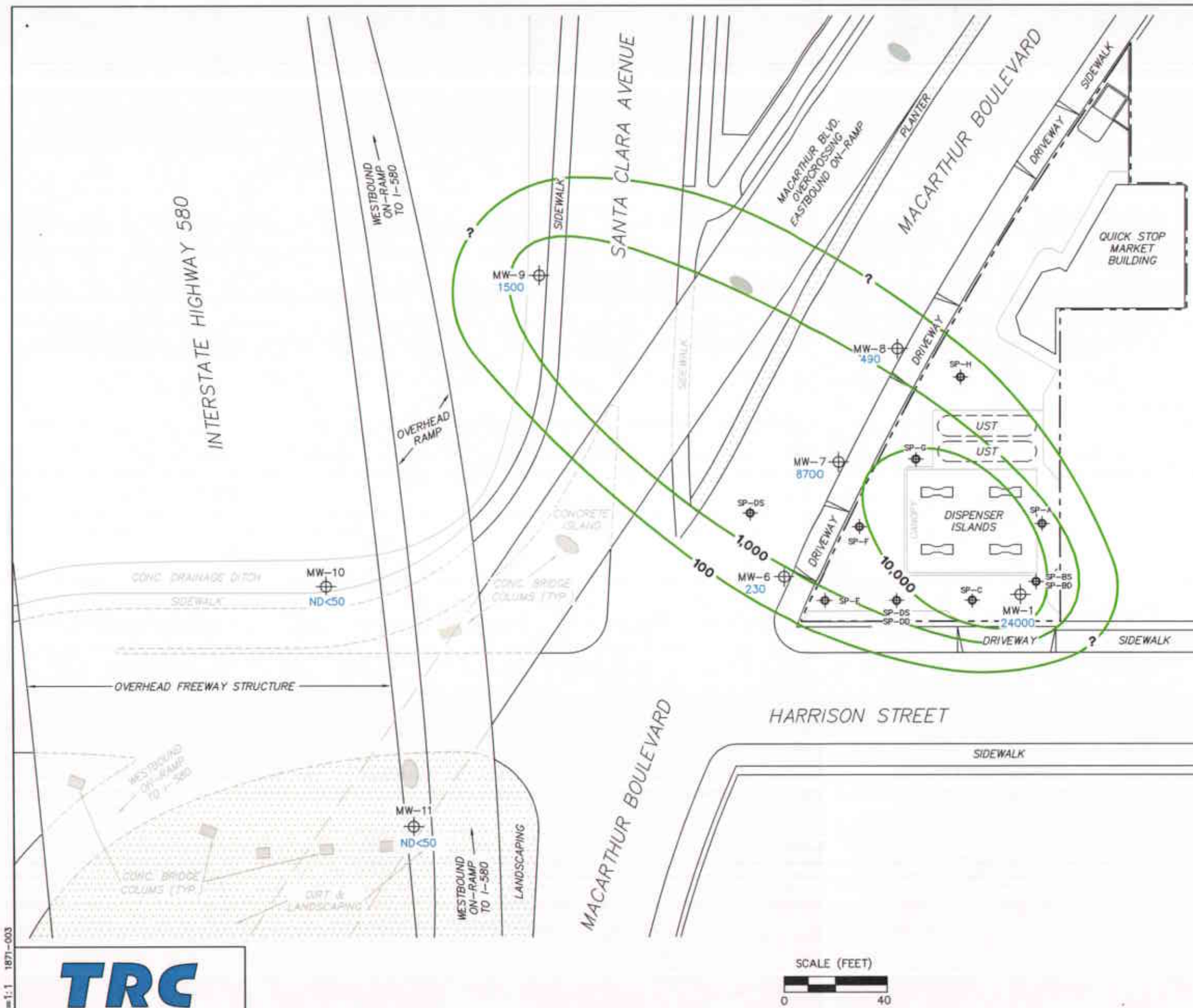
NOTES:

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**
**June 23, 2005**

76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 2**




N

LEGEND

MW-11 ⊕ Monitoring Well with Dissolved-Phase TPPH Concentration (µg/l)

SP-H ⊕ Ozone Sparge Well

—10,000— Dissolved-Phase TPPH Contour (µg/l)

NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. TPPH = total purgeable petroleum hydrocarbons. 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 TPPH CONCENTRATION MAP**
**June 23, 2005**

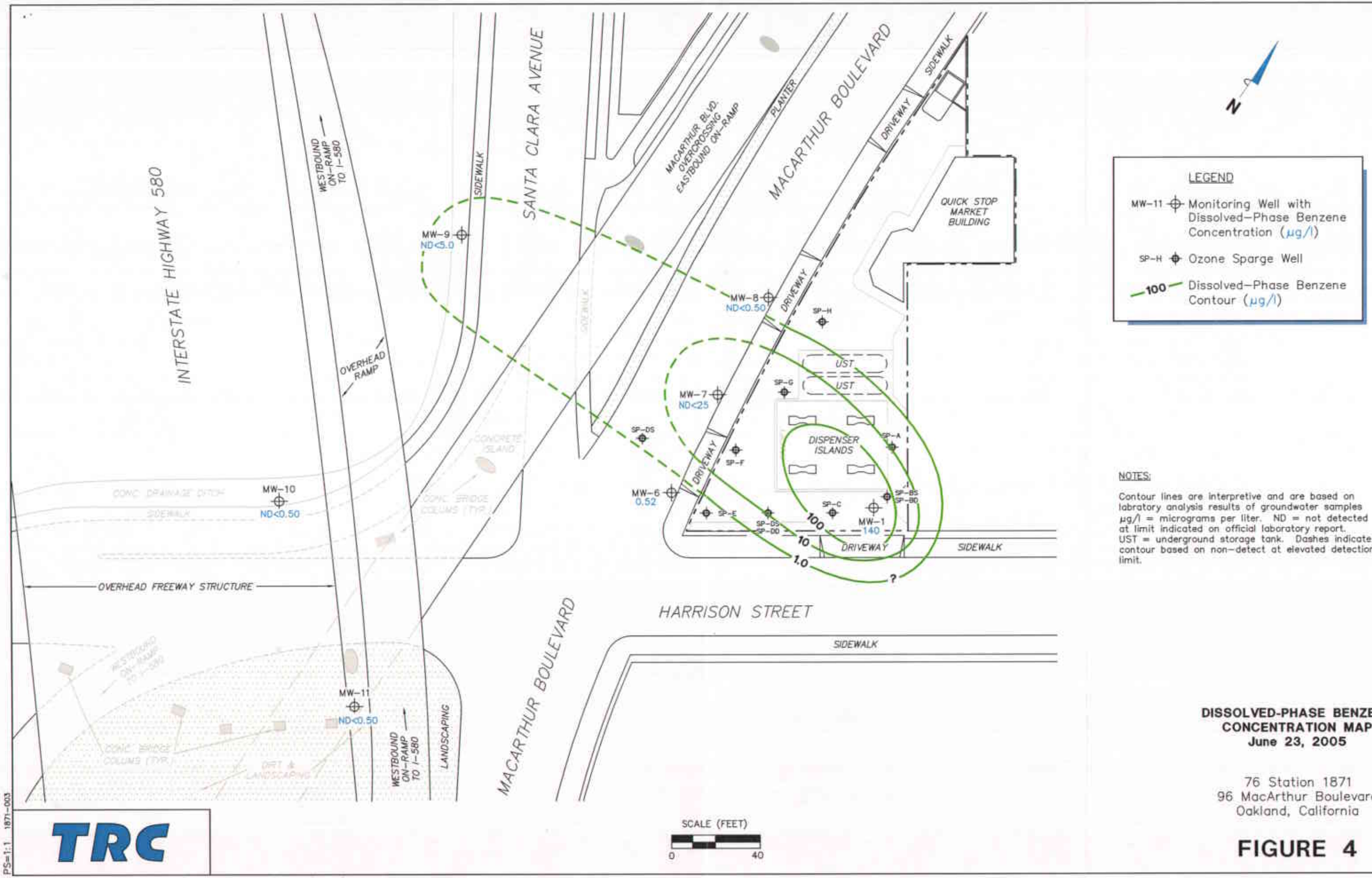
76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 3**

TRC

PS=1:1 1871-003

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-1000\1871+\1871QMS.DWG Jul 21, 2005 - 3:47pm pgunderson




NOTES:

Contour lines are interpretive and are based on labratory analysis results of groundwater samples
µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report.
UST = underground storage tank. Dashes indicate contour based on non-detect at elevated detection limit.

**DISSOLVED-PHASE BENZENE CONCENTRATION MAP**
**June 23, 2005**

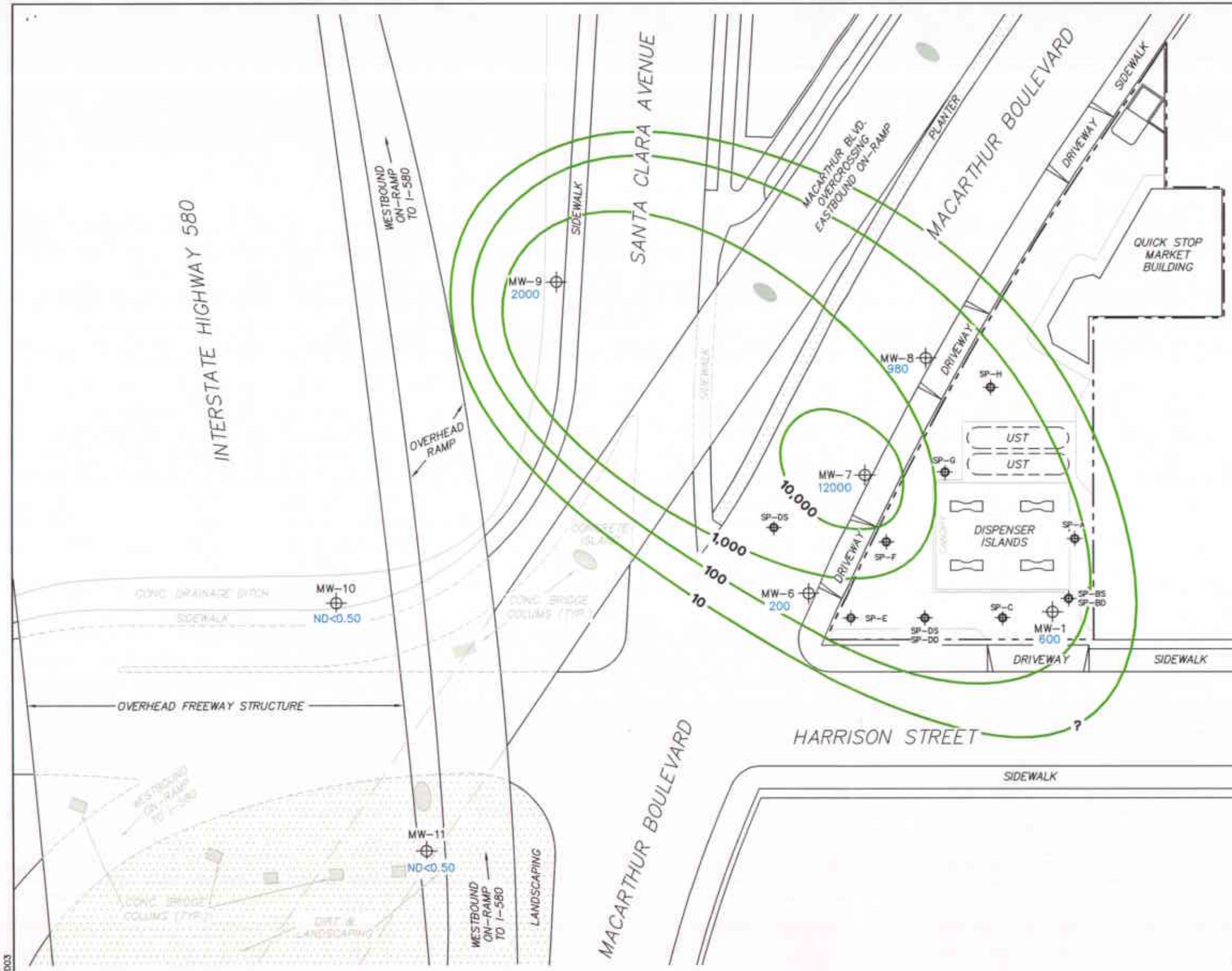
76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 4**

TRC

PS=1:1 1871-003

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-1000\1871+\1871QMS.DWG Jul 19, 2005 - 2:40pm mesten




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.

SCALE (FEET)

0 40

PS=1:1 1871-003

TRC

**DISSOLVED-PHASE MTBE CONCENTRATION MAP**
**June 23, 2005**

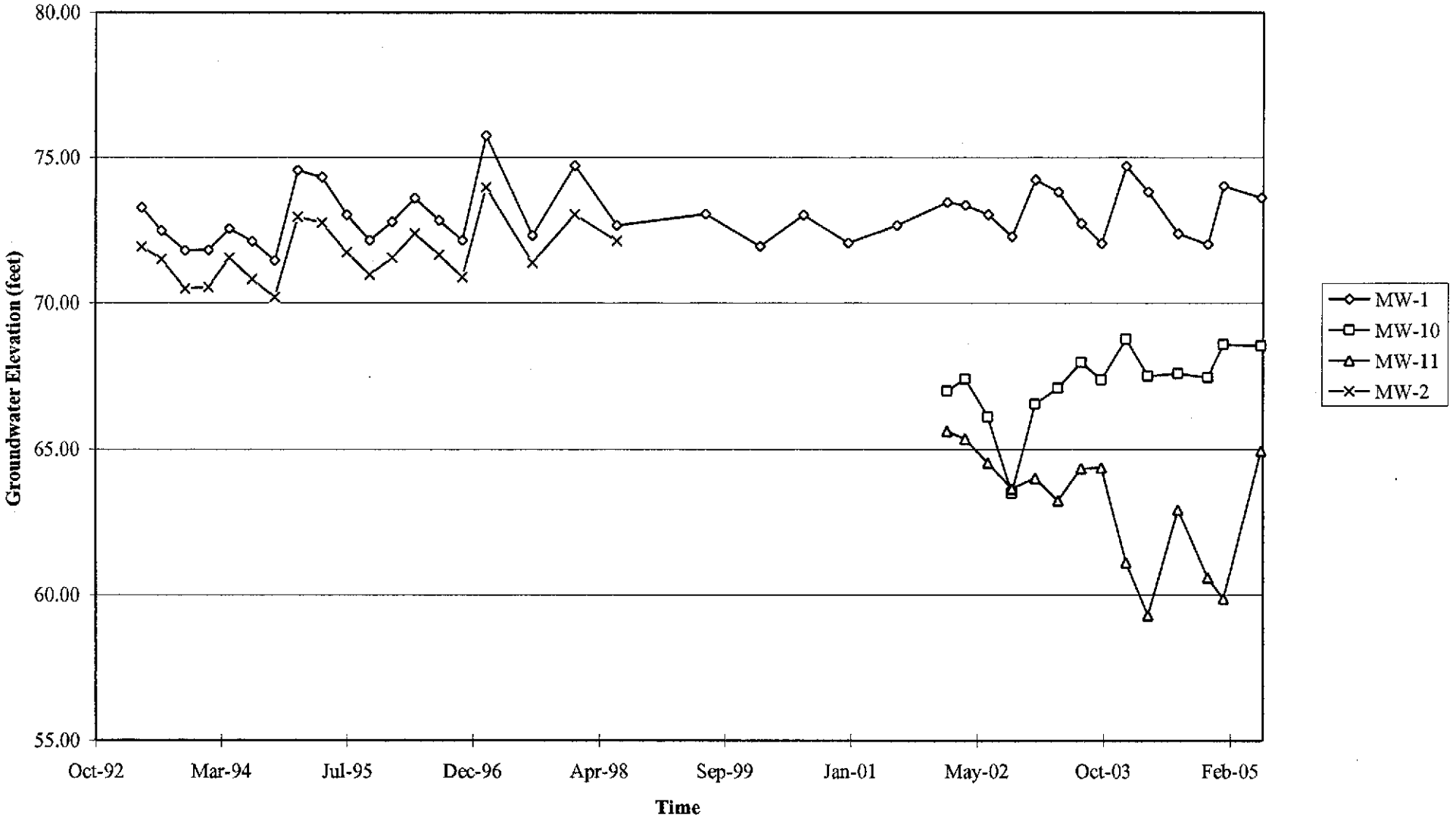
76 Station 1871
96 MacArthur Boulevard
Oakland, California

**FIGURE 5**

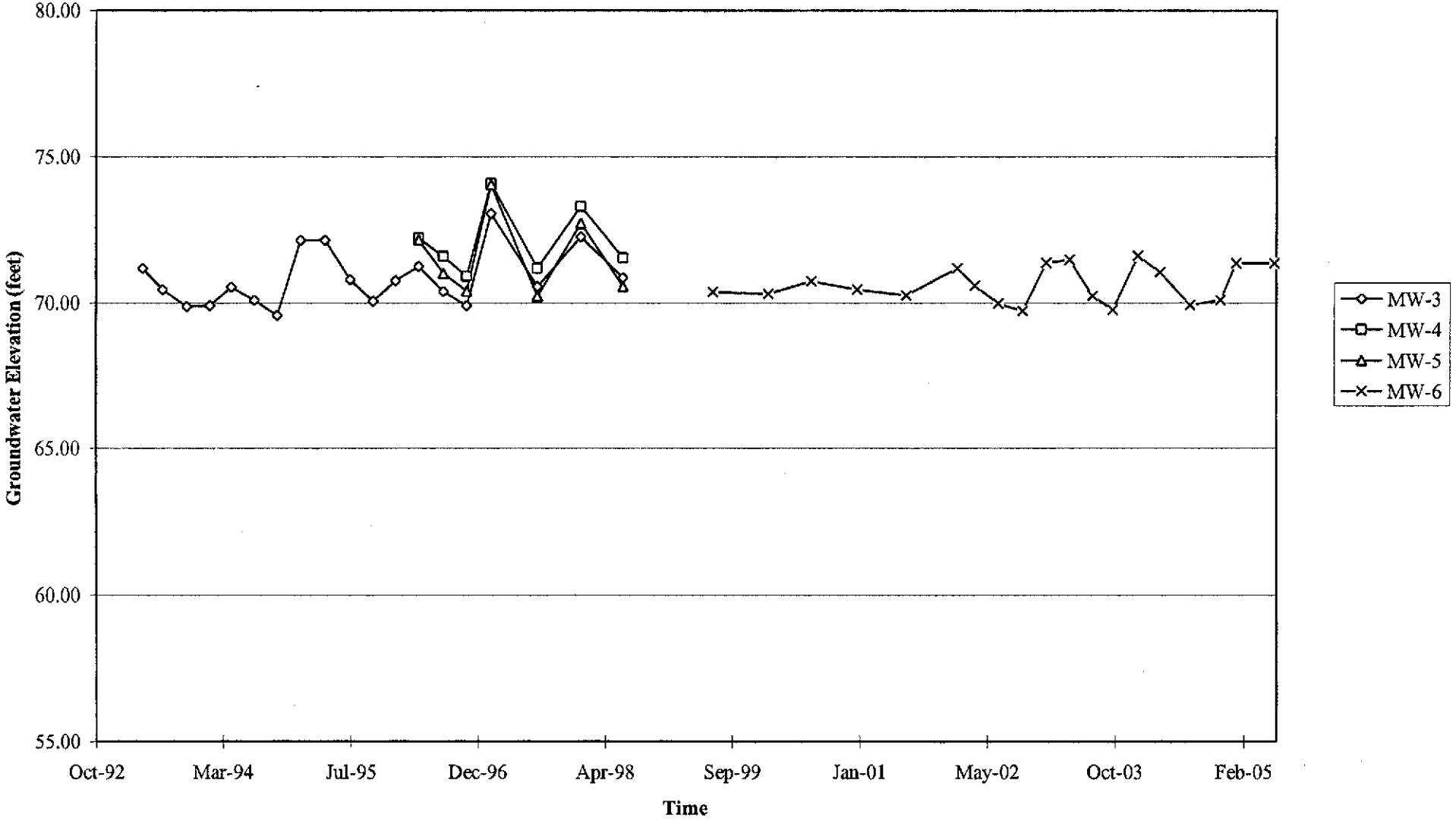
L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-1000\1871+\1871QMS.DWG Jul 18, 2005 - 3:14pm dlindner

# GRAPHS

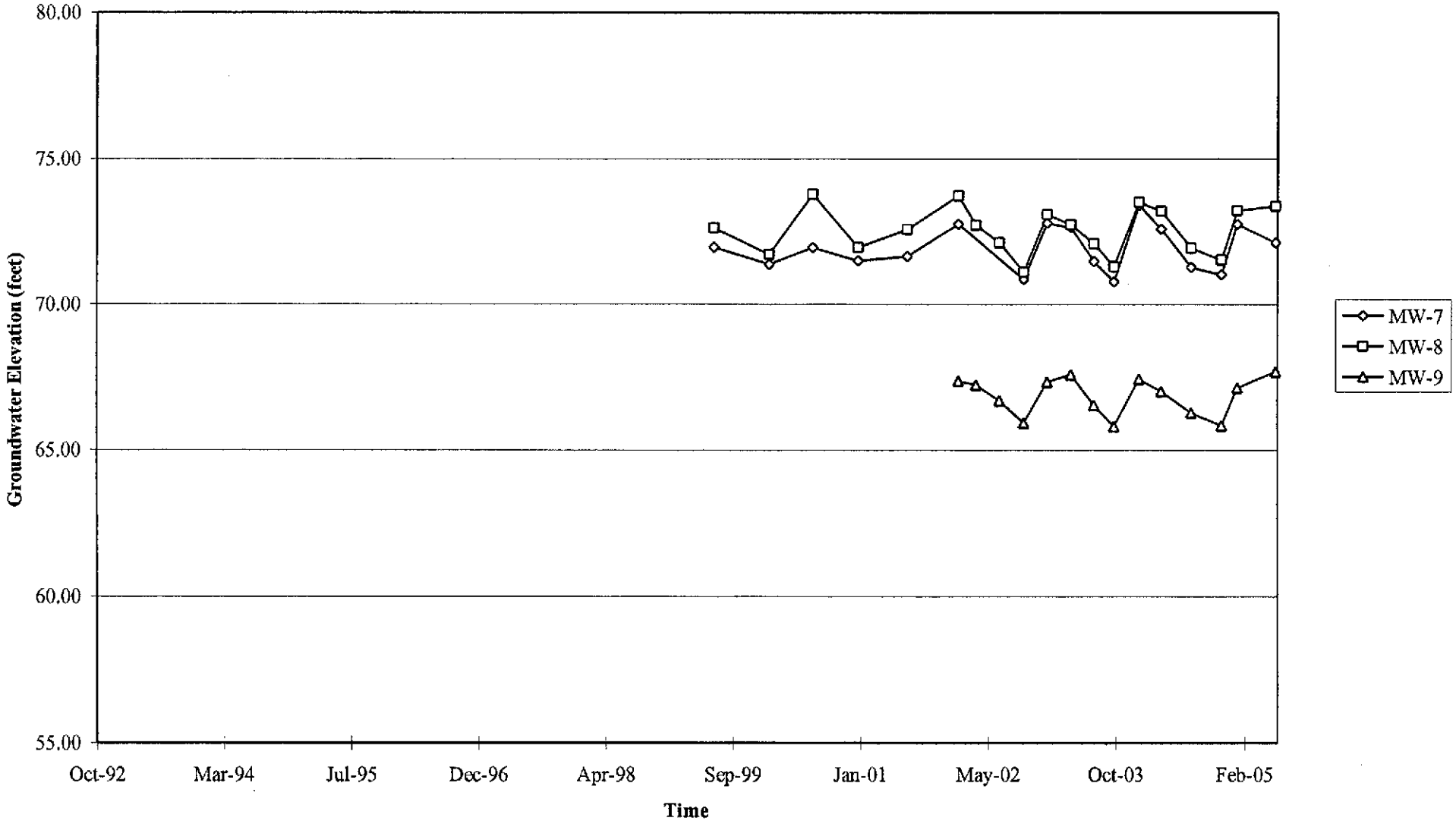
Groundwater Elevations vs. Time
76 Station 1871



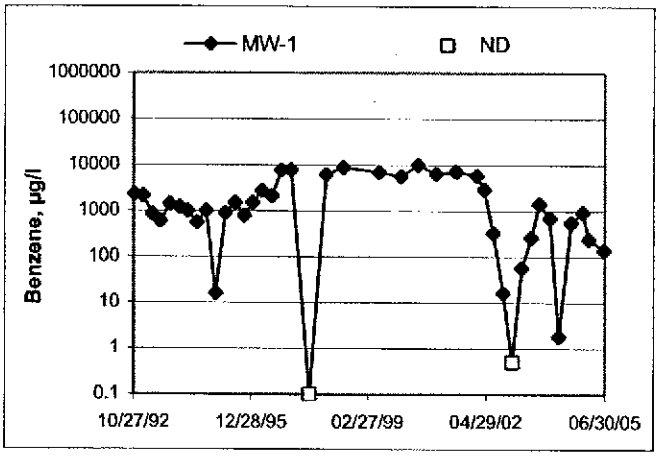
Groundwater Elevations vs. Time
76 Station 1871

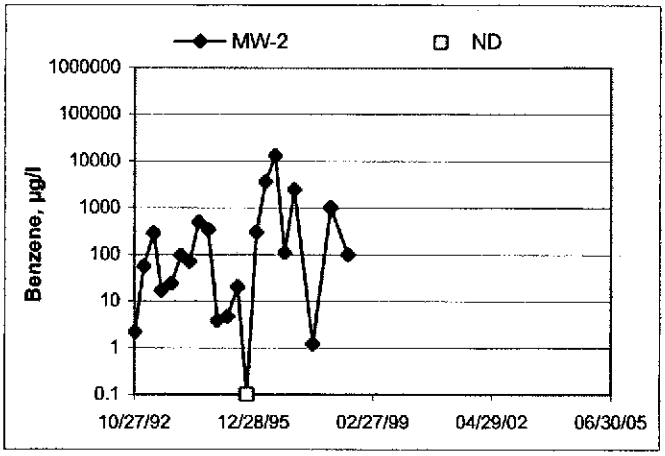


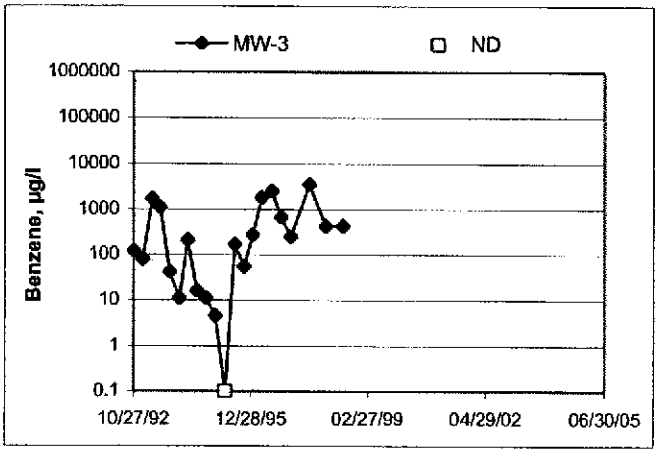
Groundwater Elevations vs. Time
76 Station 1871

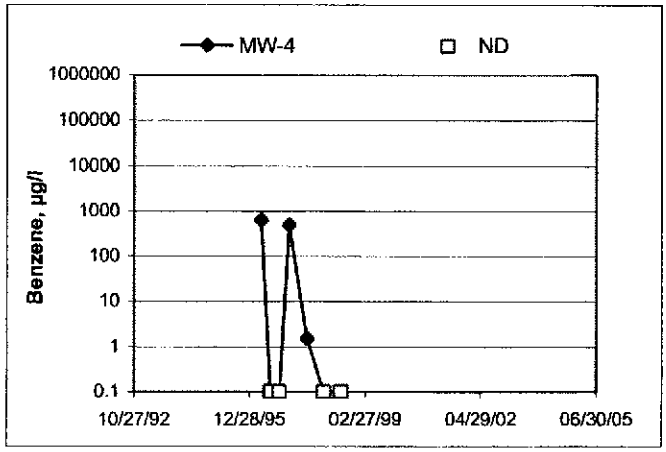


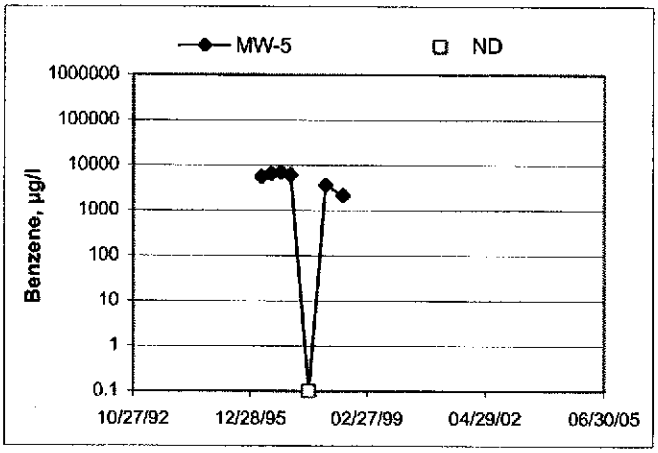
**Benzene Concentrations vs Time**
76 Station 1871

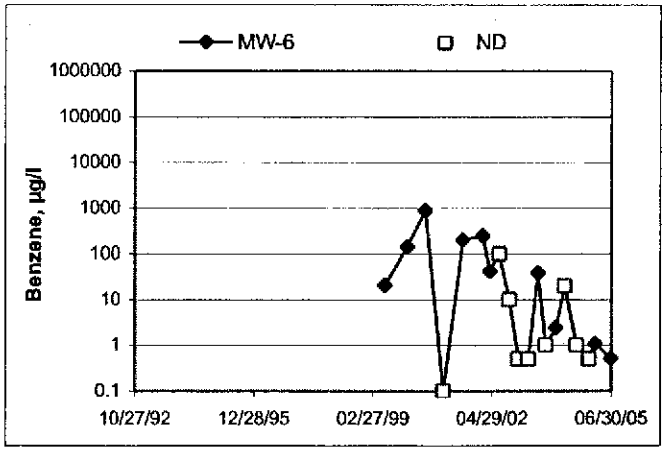


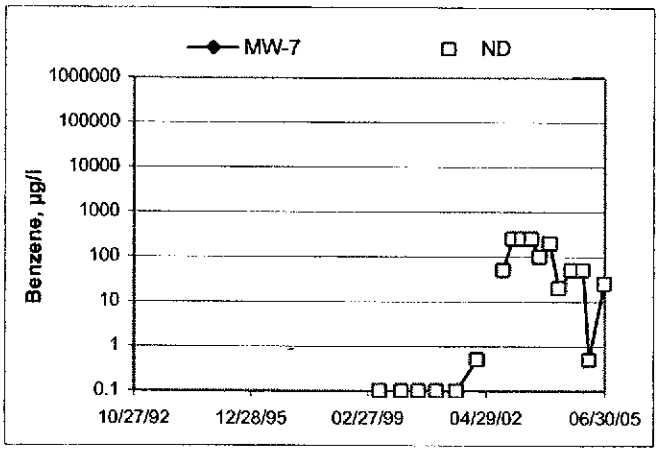



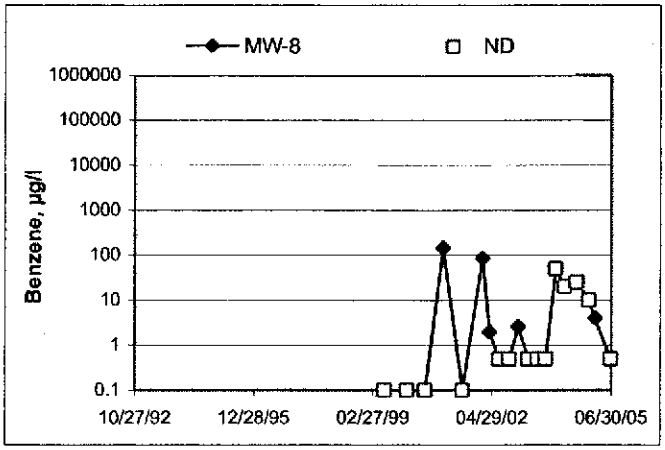



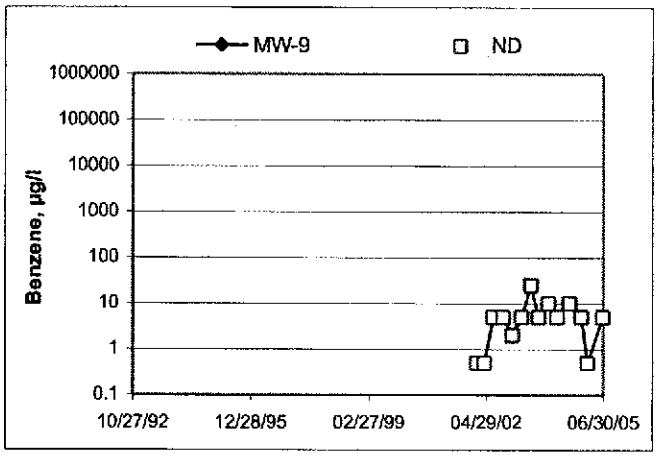



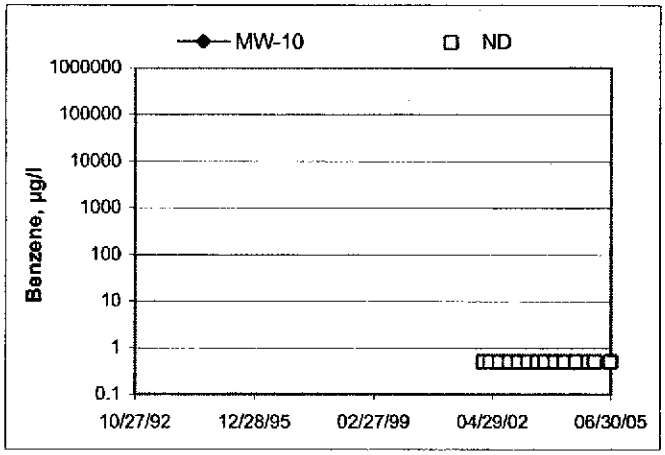



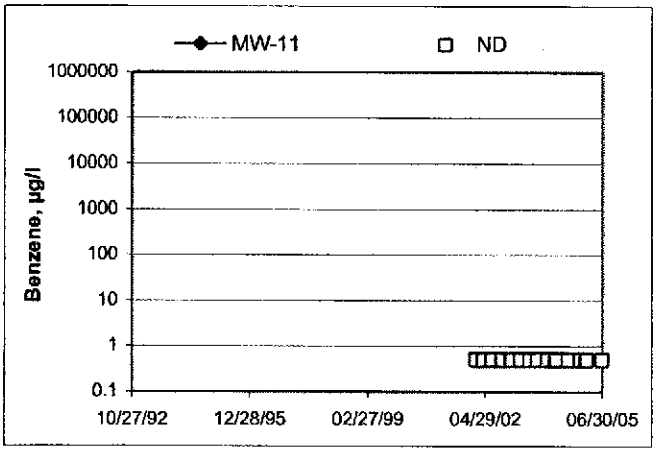



**Benzene Concentrations vs Time**
76 Station 1871



# 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: Melissa Job #/Task #: 41050001/FA20 Date: 06-23-05

Site # 1871 Project Manager A. Collins 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 | ✓ | 0526 | 30.05 | 12.37 | — | — | 0857 | 2" |
| MW-10 | ✓ | 0533 | 19.99 | 6.46 | — | — | 0909 | 2" |
| MW-9 | ✓ | 0750 | 19.85 | 14.40 | — | — | 0919 | 2" |
| MW-7 | ✓ | 0754 | 24.29 | 8.56 | — | — | 0926 | 2" |
| MW-6 | ✓ | 0539 | 24.49 | 8.33 | — | — | 0935 | 2" |
| MW-8 | ✓ | 0545 | 24.29 | 8.34 | — | — | 0942 | 2" |
| MW-1 | ✓ | 0551 | 23.98 | 13.39 | — | — | 0949 | 4" |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | | | |
|---|---|---|---|
| FIELD DATA COMPLETE | QA/QC | COC | WELL BOX CONDITION SHEETS |
| WTT CERTIFICATE | MANIFEST | DRUM INVENTORY | TRAFFIC CONTROL |



TRC

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Melissa

Site: 1871 Project No.: 41050001 Date: 06-23-05

Well No.: MW-11
Depth to Water (feet): 12.37
Total Depth (feet): 30.05
Water Column (feet): 17.68
80% Recharge Depth (feet): 15.90

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

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F, C) | pH | ~~Turbidity~~ orp | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0636 | | | 3 | 1331 | 16.7 | 6.88 | 76 | 2.16 |
| | | | 6 | 1339 | 16.9 | 6.90 | 80 | 2.13 |
| | 0638 | | 9 | 1336 | 17.0 | 6.96 | 82 | 2.17 |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 19.14 | 9 | 0857 |

Comments: Did not recover after 2 hrs.

Well No.: MW-10
Depth to Water (feet): 6.46
Total Depth (feet): 19.99
Water Column (feet): 13.53
80% Recharge Depth (feet): 9.16

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

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F, C) | pH | ~~Turbidity~~ ORP | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0701 | | | 2 | 437 | 16.6 | 7.59 | 40 | 1.76 |
| | | | 4 | 431 | 16.6 | 7.30 | 42 | 1.63 |
| | 0702 | | 6 | 433 | 16.8 | 7.38 | 44 | 7.83 |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 12.90 | 6 | 0909 |

Comments: Did not recover after 2 hrs.

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Melissa

Site: 1871 Project No.: 41050001 Date: 06-23-05

Well No.: MW-9 Purge Method: AB

Depth to Water (feet): 14.40 Depth to Product (feet): 0

Total Depth (feet): 19.85 LPH & Water Recovered (gallons): 0

Water Column (feet): 5.45 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 15.49 1 Well Volume (gallons): 1

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F, C) | pH | ~~Turbidity~~ orp | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0809 | | | 1 | 564 | 17.3 | 6.48 | -136 | 1.44 |
| | | | 2 | 585 | 17.4 | 6.48 | -142 | 1.56 |
| | 0816 | | 3 | 566 | 17.6 | 6.46 | -144 | 1.50 |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 14.43 | 3 | 0919 |

Comments:

Well No.: MW-7 Purge Method: HB

Depth to Water (feet): 8.56 Depth to Product (feet): 0

Total Depth (feet): 24.29 LPH & Water Recovered (gallons): 0

Water Column (feet): 15.73 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 11.70 1 Well Volume (gallons): 3

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F, C) | pH | ~~Turbidity~~ orp | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0823 | | | 3 | 621 | 19.5 | 6.62 | -37 | 2.18 |
| | | | 6 | 628 | 19.7 | 6.65 | -38 | 1.54 |
| | 0841 | | 9 | 625 | 19.7 | 6.74 | -32 | 2.84 |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 9.02 | 9 | 0926 |

Comments:

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Melissa

Site: 1871 Project No.: 41050001 Date: 06-23-05

Well No.: MW-6 Purge Method: Dia

Depth to Water (feet): 8.33 Depth to Product (feet): 0

Total Depth (feet): 24.49 LPH & Water Recovered (gallons): 0

Water Column (feet): 16.16 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 11.56 1 Well Volume (gallons): 3

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F.C) | pH | ~~Turbidity~~ orp | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0611 | | | 3 | 493 | 19.1 | 6.87 | 70 | 1.73 |
| | | | 6 | 510 | 19.7 | 7.14 | 72 | 1.80 |
| | 0613 | | 9 | 514 | 19.5 | 7.45 | 71 | 1.86 |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 8.61 | 9 | 0935 |

Comments:

Well No.: MW-8 Purge Method: Dia

Depth to Water (feet): 8.34 Depth to Product (feet): 0

Total Depth (feet): 24.29 LPH & Water Recovered (gallons): 0

Water Column (feet): 15.95 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 11.53 1 Well Volume (gallons): 3

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F.C) | pH | ~~Turbidity~~ orp | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0623 | | | 3 | 452 | 19.2 | 6.61 | 58 | 2.13 |
| | | | 6 | 449 | 19.2 | 6.64 | 52 | 1.97 |
| | 0625 | | 9 | 447 | 19.3 | 6.80 | 56 | 2.05 |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 8.81 | 9 | 0942 |

Comments:

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Melissa

Site: 1870 *** Project No.: 41050001 Date: 06-23-05

Well No.: MW-1 Purge Method: Dic

Depth to Water (feet): 13.39 Depth to Product (feet): ⊖

Total Depth (feet): 23.98 LPH & Water Recovered (gallons): ⊖

Water Column (feet): 10.59 Casing Diameter (inches): 4"

80% Recharge Depth (feet): 15.50 1 Well Volume (gallons): 7

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F ⊙) | pH | ~~Turbidity~~ ORP | D.O. |
|---|---|---|---|---|---|---|---|---|
| 0717 | | | 7 | 391 | 20.1 | 7.13 | -103 | 4.79 |
| | | | 14 | 586 | 20.1 | 6.84 | -116 | 6.19 |
| | 0725 | | 21 | — | — | — | — | — |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| 19.54 | 16 | 0949 |

Comments: Well went dry after 16 gallons. Did not Recover after 45 minutes Did not Recover after 2hrs.

Well No.: _____ Purge Method: _____

Depth to Water (feet): _____ Depth to Product (feet): _____

Total Depth (feet): _____ LPH & Water Recovered (gallons): _____

Water Column (feet): _____ Casing Diameter (Inches): _____

80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

| Time Start | Time Stop | Depth To Water (feet) | Volume Purged (gallons) | Conductivity (uS/cm) | Temperature (F, C) | pH | Turbidity | D.O. |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Static at Time Sampled | Total Gallons Purged | Time Sampled |
|---|---|---|
| | | |

Comments: _____

BC Laboratories, Inc

Date of Report: 07/11/2005

Anju Farfan

TRC Alton Geoscience

21 Technology Drive
Irvine, CA 92618-2302

RE: 1871

BC Lab Number: 0506261

Enclosed are the results of analyses for samples received by the laboratory on 06/24/05 17:31. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Surratt

Client Service Rep

Authorized Signature

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Laboratory / Client Sample Cross Reference

| Laboratory | Client Sample Information | | | | |
|---|---|---|---|---|---|
| 0506261-01 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 08:57 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-11 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-11 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |
| 0506261-02 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 09:09 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-10 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-10 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |
| 0506261-03 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 09:19 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-9 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-9 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |
| 0506261-04 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 09:26 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-7 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-7 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |
| 0506261-05 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 09:35 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-6 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-6 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Laboratory / Client Sample Cross Reference

| Laboratory | Client Sample Information | | | | |
|---|---|---|---|---|---|
| 0506261-06 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 09:42 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-8 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-8 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |
| 0506261-07 | **COC Number:** | --- | **Receive Date:** | 06/24/05 17:31 | Delivery Work Order (LabW: |
| | **Project Number:** | 1871 | **Sampling Date:** | 06/23/05 09:49 | Global ID: T0600101493 |
| | **Sampling Location:** | MW-1 | **Sample Depth:** | --- | Matrix: W |
| | **Sampling Point:** | MW-1 | **Sample Matrix:** | Water | Samle QC Type (SACode): CS |
| | **Sampled By:** | Melissa of TRCI | | | Cooler ID: |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-01 | **Client Sample Name:** 1871, MW-11, MW-11, 6/23/2005 8:57:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/L | 0.50 | 0.12 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethylbenzene | ND | ug/L | 0.50 | 0.13 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Methyl t-butyl ether | ND | ug/L | 0.50 | 0.15 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Toluene | ND | ug/L | 0.50 | 0.15 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Xylenes | ND | ug/L | 1.0 | 0.40 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethanol | ND | ug/L | 1000 | 110 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Purgeable Petroleum Hydrocarbons | ND | ug/L | 50 | 23 | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| 1,2-Dichloroethane-d4 (Surrogate) | 98.8 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 100 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 96.7 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:48 | MWB | MS-V10 | 1 | BOG0035 | | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-02 | **Client Sample Name:** 1871, MW-10, MW-10, 6/23/2005 9:09:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/L | 0.50 | 0.12 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethylbenzene | ND | ug/L | 0.50 | 0.13 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Methyl t-butyl ether | ND | ug/L | 0.50 | 0.15 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Toluene | ND | ug/L | 0.50 | 0.15 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Xylenes | ND | ug/L | 1.0 | 0.40 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethanol | ND | ug/L | 1000 | 110 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Purgeable Petroleum Hydrocarbons | ND | ug/L | 50 | 23 | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| 1,2-Dichloroethane-d4 (Surrogate) | 103 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 98.6 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 96.0 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:11 | MWB | MS-V10 | 1 | BOG0035 | | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-03 | **Client Sample Name:** 1871, MW-9, MW-9, 6/23/2005 9:19:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/L | 5.0 | 1.2 | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | ND | A01 |
| Ethylbenzene | ND | ug/L | 5.0 | 1.3 | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | ND | A01 |
| Methyl t-butyl ether | 2000 | ug/L | 25 | 7.5 | EPA-8260 | 06/30/05 | 06/30/05 14:37 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Toluene | ND | ug/L | 5.0 | 1.5 | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | ND | A01 |
| Total Xylenes | ND | ug/L | 10 | 4.0 | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | ND | A01 |
| Ethanol | ND | ug/L | 10000 | 1100 | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | ND | A01 |
| Total Purgeable Petroleum Hydrocarbons | 1500 | ug/L | 500 | 230 | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | ND | A01, A53 |
| 1,2-Dichloroethane-d4 (Surrogate) | 98.7 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | | |
| 1,2-Dichloroethane-d4 (Surrogate) | 101 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 14:37 | MWB | MS-V10 | 50 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 100 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 100 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 14:37 | MWB | MS-V10 | 50 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 92.7 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 14:37 | MWB | MS-V10 | 50 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 97.1 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 17:21 | MWB | MS-V10 | 10 | BOG0035 | | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-04 | **Client Sample Name:** 1871, MW-7, MW-7, 6/23/2005 9:26:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/L | 25 | 6.0 | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Ethylbenzene | ND | ug/L | 25 | 6.5 | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Methyl t-butyl ether | 12000 | ug/L | 120 | 38 | EPA-8260 | 06/30/05 | 06/30/05 17:44 | MWB | MS-V10 | 250 | BOG0035 | ND | A01 |
| Toluene | ND | ug/L | 25 | 7.5 | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Total Xylenes | ND | ug/L | 50 | 20 | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Ethanol | ND | ug/L | 50000 | 5500 | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Total Purgeable Petroleum Hydrocarbons | 8700 | ug/L | 2500 | 1200 | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | ND | A01, A53 |
| 1,2-Dichloroethane-d4 (Surrogate) | 99.0 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 17:44 | MWB | MS-V10 | 250 | BOG0035 | | |
| 1,2-Dichloroethane-d4 (Surrogate) | 99.5 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 102 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 17:44 | MWB | MS-V10 | 250 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 99.5 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 97.9 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 17:44 | MWB | MS-V10 | 250 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 95.7 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:01 | MWB | MS-V10 | 50 | BOG0035 | | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-05 | **Client Sample Name:** 1871, MW-6, MW-6, 6/23/2005 9:35:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.52 | ug/L | 0.50 | 0.12 | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethylbenzene | 3.6 | ug/L | 0.50 | 0.13 | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Methyl t-butyl ether | 200 | ug/L | 5.0 | 1.5 | EPA-8260 | 06/30/05 | 07/01/05 10:11 | MWB | MS-V10 | 10 | BOG0035 | ND | A01 |
| Toluene | ND | ug/L | 0.50 | 0.15 | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Xylenes | 9.6 | ug/L | 1.0 | 0.40 | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethanol | ND | ug/L | 1000 | 110 | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Purgeable Petroleum Hydrocarbons | 230 | ug/L | 50 | 23 | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| 1,2-Dichloroethane-d4 (Surrogate) | 101 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | | |
| 1,2-Dichloroethane-d4 (Surrogate) | 97.8 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 07/01/05 10:11 | MWB | MS-V10 | 10 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 102 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 97.5 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 07/01/05 10:11 | MWB | MS-V10 | 10 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 104 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:34 | MWB | MS-V10 | 1 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 98.0 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 07/01/05 10:11 | MWB | MS-V10 | 10 | BOG0035 | | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-06 | **Client Sample Name:** 1871, MW-8, MW-8, 6/23/2005 9:42:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/L | 0.50 | 0.12 | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethylbenzene | 1.5 | ug/L | 0.50 | 0.13 | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Methyl t-butyl ether | 980 | ug/L | 25 | 7.5 | EPA-8260 | 06/30/05 | 07/01/05 10:34 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Toluene | ND | ug/L | 0.50 | 0.15 | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Xylenes | ND | ug/L | 1.0 | 0.40 | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Ethanol | ND | ug/L | 1000 | 110 | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| Total Purgeable Petroleum Hydrocarbons | 490 | ug/L | 50 | 23 | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | ND | |
| 1,2-Dichloroethane-d4 (Surrogate) | 98.1 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | | |
| 1,2-Dichloroethane-d4 (Surrogate) | 95.4 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 07/01/05 10:34 | MWB | MS-V10 | 50 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 101 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 96.4 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 07/01/05 10:34 | MWB | MS-V10 | 50 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 93.4 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 07/01/05 10:34 | MWB | MS-V10 | 50 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 101 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 16:57 | MWB | MS-V10 | 1 | BOG0035 | | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506261-07 | **Client Sample Name:** 1871, MW-1, MW-1, 6/23/2005 9:49:00AM, Melissa

| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 140 | ug/L | 25 | 6.0 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Ethylbenzene | 1100 | ug/L | 25 | 6.5 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Methyl t-butyl ether | 600 | ug/L | 25 | 7.5 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Toluene | ND | ug/L | 25 | 7.5 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Total Xylenes | 2900 | ug/L | 50 | 20 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Ethanol | ND | ug/L | 50000 | 5500 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| Total Purgeable Petroleum Hydrocarbons | 24000 | ug/L | 2500 | 1200 | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | ND | A01 |
| 1,2-Dichloroethane-d4 (Surrogate) | 101 | % | 76 - 114 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | | |
| Toluene-d8 (Surrogate) | 101 | % | 88 - 110 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | | |
| 4-Bromofluorobenzene (Surrogate) | 104 | % | 86 - 115 (LCL - UCL) | | EPA-8260 | 06/30/05 | 06/30/05 15:24 | MWB | MS-V10 | 50 | BOG0035 | | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

## Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample ID | QC Sample Type | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits RPD | Control Limits Percent Recovery | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | BOG0035 | BOG0035-MS1 | Matrix Spike | ND | 25.380 | 25.000 | ug/L | | 102 | | 70 - 130 | |
| | | BOG0035-MSD1 | Matrix Spike Duplicate | ND | 24.990 | 25.000 | ug/L | 1.98 | 100 | 20 | 70 - 130 | |
| Toluene | BOG0035 | BOG0035-MS1 | Matrix Spike | ND | 25.850 | 25.000 | ug/L | | 103 | | 70 - 130 | |
| | | BOG0035-MSD1 | Matrix Spike Duplicate | ND | 25.960 | 25.000 | ug/L | 0.966 | 104 | 20 | 70 - 130 | |
| 1,2-Dichloroethane-d4 (Surrogate) | BOG0035 | BOG0035-MS1 | Matrix Spike | ND | 9.8800 | 10.000 | ug/L | | 98.8 | | 76 - 114 | |
| | | BOG0035-MSD1 | Matrix Spike Duplicate | ND | 10.050 | 10.000 | ug/L | | 100 | | 76 - 114 | |
| Toluene-d8 (Surrogate) | BOG0035 | BOG0035-MS1 | Matrix Spike | ND | 10.050 | 10.000 | ug/L | | 100 | | 88 - 110 | |
| | | BOG0035-MSD1 | Matrix Spike Duplicate | ND | 10.140 | 10.000 | ug/L | | 101 | | 88 - 110 | |
| 4-Bromofluorobenzene (Surrogate) | BOG0035 | BOG0035-MS1 | Matrix Spike | ND | 9.7400 | 10.000 | ug/L | | 97.4 | | 86 - 115 | |
| | | BOG0035-MSD1 | Matrix Spike Duplicate | ND | 9.9900 | 10.000 | ug/L | | 99.9 | | 86 - 115 | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

## Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | RPD | Control Limits Percent Recovery | Control Limits RPD | Lab Quals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | BOG0035 | BOG0035-BS1 | LCS | 25.760 | 25.000 | 0.50 | ug/L | 103 | | 70 - 130 | | |
| Toluene | BOG0035 | BOG0035-BS1 | LCS | 25.380 | 25.000 | 0.50 | ug/L | 102 | | 70 - 130 | | |
| 1,2-Dichloroethane-d4 (Surrogate) | BOG0035 | BOG0035-BS1 | LCS | 9.8800 | 10.000 | | ug/L | 98.8 | | 76 - 114 | | |
| Toluene-d8 (Surrogate) | BOG0035 | BOG0035-BS1 | LCS | 9.7200 | 10.000 | | ug/L | 97.2 | | 88 - 110 | | |
| 4-Bromofluorobenzene (Surrogate) | BOG0035 | BOG0035-BS1 | LCS | 9.7300 | 10.000 | | ug/L | 97.3 | | 86 - 115 | | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

# Volatile Organic Analysis (EPA Method 8260)

## Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|---|---|---|---|---|---|---|---|
| Benzene | BOG0035 | BOG0035-BLK1 | ND | ug/L | 0.50 | 0.12 | |
| Ethylbenzene | BOG0035 | BOG0035-BLK1 | ND | ug/L | 0.50 | 0.13 | |
| Methyl t-butyl ether | BOG0035 | BOG0035-BLK1 | ND | ug/L | 0.50 | 0.15 | |
| Toluene | BOG0035 | BOG0035-BLK1 | ND | ug/L | 0.50 | 0.15 | |
| Total Xylenes | BOG0035 | BOG0035-BLK1 | ND | ug/L | 1.0 | 0.40 | |
| Ethanol | BOG0035 | BOG0035-BLK1 | ND | ug/L | 1000 | 110 | |
| Total Purgeable Petroleum Hydrocarbons | BOG0035 | BOG0035-BLK1 | ND | ug/L | 50 | 23 | |
| 1,2-Dichloroethane-d4 (Surrogate) | BOG0035 | BOG0035-BLK1 | 104 | % | 76 - 114 (LCL - UCL) | | |
| Toluene-d8 (Surrogate) | BOG0035 | BOG0035-BLK1 | 98.5 | % | 88 - 110 (LCL - UCL) | | |
| 4-Bromofluorobenzene (Surrogate) | BOG0035 | BOG0035-BLK1 | 97.9 | % | 86 - 115 (LCL - UCL) | | |

TRC Alton Geoscience
21 Technology Drive
Irvine CA, 92618-2302

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 07/11/05 08:18

## Notes and Definitions

| | |
|---|---|
| A53 | Chromatogram not typical of gasoline |
| A01 | PQL's and MDL's are raised due to sample dilution. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 10 01/21/04 Page ___ Of ___

Submission #: 05-6261 | Project Code: | TB Batch #

**SHIPPING INFORMATION**

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

**SHIPPING CONTAINER**

Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Ice Chest ID R1W Emissivity .93
Temperature: 5.3 °C Container QTA
Thermometer ID: 48

Date/Time 6/24/05
Analyst Init NVI

| SAMPLE CONTAINERS | SAMPLE NUMBERS 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| QT GENERAL MINERAL/ GENERAL PHYSICAL | | | | | | | | | | |
| PT PE UNPRESERVED | | | | | | | | | | |
| QT INORGANIC CHEMICAL METALS | | | | | | | | | | |
| PT INORGANIC CHEMICAL METALS | | | | | | | | | | |
| PT CYANIDE | | | | | | | | | | |
| PT NITROGEN FORMS | | | | | | | | | | |
| PT TOTAL SULFIDE | | | | | | | | | | |
| 2oz. NITRATE / NITRITE | | | | | | | | | | |
| 100ml TOTAL ORGANIC CARBON | | | | | | | | | | |
| QT TOX | | | | | | | | | | |
| PT CHEMICAL OXYGEN DEMAND | | | | | | | | | | |
| PtA PHENOLICS | | | | | | | | | | |
| 40ml VOA VIAL TRAVEL BLANK | | | | | | | | | | |
| 40ml VOA VIAL | A 3 | A 3 | A 3 | A 3 | A 3 | A 3 | A 3 | | | |
| QT EPA 413.1, 413.2, 418.1 | | | | | | | | | | |
| PT ODOR | | | | | | | | | | |
| RADIOLOGICAL | | | | | | | | | | |
| BACTERIOLOGICAL | | | | | | | | | | |
| 40 ml VOA VIAL- 504 | | | | | | | | | | |
| QT EPA 508/608/8080 | | | | | | | | | | |
| QT EPA 515.1/8150 | | | | | | | | | | |
| QT EPA 525 | | | | | | | | | | |
| QT EPA 525 TRAVEL BLANK | | | | | | | | | | |
| 100ml EPA 547 | | | | | | | | | | |
| 100ml EPA 531.1 | | | | | | | | | | |
| QT EPA 548 | | | | | | | | | | |
| QT EPA 549 | | | | | | | | | | |
| QT EPA 632 | | | | | | | | | | |
| QT EPA 8015M | | | | | | | | | | |
| QT QA/QC | | | | | | | | | | |
| QT AMBER | | | | | | | | | | |
| 8 OZ. JAR | | | | | | | | | | |
| 32 OZ. JAR | | | | | | | | | | |
| SOIL SLEEVE | | | | | | | | | | |
| PCB VIAL | | | | | | | | | | |
| PLASTIC BAG | | | | | | | | | | |
| FERROUS IRON | | | | | | | | | | |
| ENCORE | | | | | | | | | | |

Comments:

Sample Numbering Completed By: NVI Date/Time: 6/24/05 18:14

BC Laboratories, Inc.

# Chain of Custody Form

47070

PLEASE COMPLETE BCL QUOTE ID:

Page 1 of 1

| | |
|---|---|
| Report To: Client: TRC | Project #: 41050001 |
| Attn: Anju Farfan | Project Name: Conoco Phillips |
| Street Address: 21 Technology Drive | Project Code: 1871 |
| City, State, Zip: Irvine, Ca 92618 | Sampler(s): Melissa |
| Phone: 949-341-7440 Fax: 949-753-0111 | Global ID# T0600101493 |
| Email Address: afarfan@trcsolutions.com | |
| Submittal #: 05-60261 | |

**Analysis Requested**

Please refer to the back of this page for completion instructions and method legend.

| Sample # | Description | Date Sampled | Time Sampled | TPPH by 8260B | BTEX/MTBE/EDB/EDC by 8260B | Sample Matrix: Soil | Sludge | Drinking Water | Ground Water | Waste Water | Other | Turnaround # of work days* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | MW-11 | 06/23/05 | 0857 | X | X | | | | X | | | 5d | 3 voas w/HCl |
| -2 | MW-10 | | 0909 | | | | | | | | | | |
| -3 | MW-9 | | 0919 | | | | | | | | | | |
| -4 | MW-7 | | 0926 | | | | | | | | | | |
| -5 | MW-6 | | 0935 | | | | | | | | | | |
| -6 | MW-8 | | 0942 | | | | | | | | | | |
| -7 | MW-1 | | 0949 | | | | | | | | | | |

Comments:

Are there any tests with holding times less than or equal to 48 hours? ☐ Yes ☐ No

* Standard Turnaround = 15 work days

CHK BY

6/24/05

DISTRIBUTION

SUB-OUT ☐

**Billing** ☒ Same as above

Client:

Address:

City: State Zip

Attn:

PO#:

Report Drinking Waters on State Form? ☐ Yes ☐ No

Send Copy to State of CA? ☐ Yes ☐ No

Sample Disposal: ☐ Return to Client ☐ Disposal by lab ☐ Archive: Months

Special Reporting: ☐ QC ☐ WIP ☐ Raw Data

| | Relinquished By | Date | Time | Received By | Date | Time |
|---|---|---|---|---|---|---|
| 1. | | 06-23-05 | 1200 | Ross Dickey | 6/24/05 | 1155 |
| 2. | Ross Dickey | 6/24/05 | 1420 | | 6/24/05 | 1420 |
| 3. | | 6/24/05 | 1730 | Nancy Velasco | 6/24/05 | 17:31 |

## STATEMENTS

### Purge Water Disposal

Non-hazardous groundwater produced during purging and sampling of monitoring 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 containing a significant amount of liquid-phase hydrocarbons was accumulated separately in drums 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.