

**2006 ANNUAL PERFORMANCE
MONITORING REPORT**

**CIRCUITRON SUPERFUND SITE
EAST FARMINGDALE,
NEW YORK**

Prepared for
USACE, New York

Contract No. DACW41-01-D-0004
Delivery Order No. 002

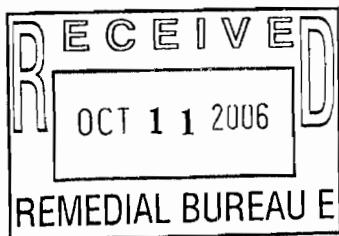
October 2006

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**Re: Circuitron Corporation Superfund Site
2006 Annual Performance Monitoring Report**

Please find enclosed your copy of the 2006 Annual Performance Monitoring Report, which URS prepared. This report evaluates the 2006 monitoring well sampling results and water levels obtained through June 2006.

Please do not hesitate to contact Anne Fung if you have any questions.

Very truly yours,



Ira Merin, PG
Principal Hydrogeologist

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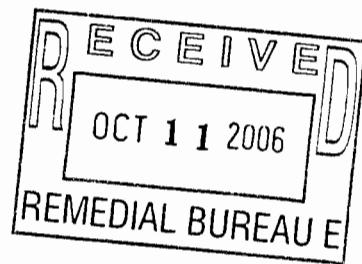


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List of Acronyms

1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,2-DCE	1,2-dichloroethene (total)
ASTM	American Standard of Testing Materials
bgs	below ground surface
FFS	Focused Feasibility Study
FID	Flame Ionization Detector
GC/MS	Gas chromatograph/mass spectrometer
gpm	Gallons per minute
LEL	Lower Exposure Limit
O&M	Operation and Maintenance
OU-2	Operable Unit Two
PCE	Tetrachloroethene
PID	Photoionization Detector
RCRA	Resource Conservation Recovery Act
REAC	Response Engineering and Analytical Contract
ROD	Record of Decision
TCA	Trichloroethane
TCE	Trichloroethene
TOC	Total Organic Compounds
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1.0 INTRODUCTION

This is the 2006 Annual Performance Monitoring Report for the Circuitron Corporation Superfund Site located in East Farmingdale, New York (Figure 1-1). This report presents an assessment of the groundwater data collected to date for the period January 1999 to July 2006, in accordance with the selected remedy for the site as described in the Record of Decision (ROD) (USEPA, 1994) for Operable Unit Two (OU-2). The annual report is prepared on a regular schedule incorporating new performance monitoring data. Since metals analysis was eliminated after the 2003 sampling event, this report does not contain the historical metals data previously presented. Refer to the 2003 Annual Performance Monitoring Report for the metals data collected from January 1999 to April 2003.

This section of the report provides background information for the site, including a description of the extraction well system, the network of performance monitoring wells, and the monitoring schedule. Section 2 introduces the technical approach for the performance monitoring evaluation. Section 3 provides an assessment of the groundwater flow patterns for the site with respect to the modeled and the observed zones of capture for the OU-2 remedy. Section 4 is an evaluation of the groundwater quality data for the site. Section 5 presents a summary of the findings and conclusions. Section 6 presents recommendations for the site, and Section 7 provides the reference materials used for the preparation of this report.

1.1 BACKGROUND

Based on the results of the Focused Feasibility Study (FFS) for OU-2, completed by Roy F. Weston (Weston, 1994), elevated levels of both organic and inorganic compounds were detected in the Upper Glacial Aquifer below and near the Circuitron site. The Upper Glacial Aquifer is described as the water table aquifer that extends to a depth of 70 to 80 feet below the ground surface (bgs) at the site and overlies the Magothy Aquifer. Elevated levels (exceeding Federal and State Groundwater Drinking Water Standards) of 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), chromium, and copper were detected in the groundwater in the upper portions (less than 40 feet bgs) of the Upper Glacial Aquifer. These detections were attributed to the Circuitron facility (see Figure 1-2). Similar compounds were also detected at elevated levels in the deeper portions (greater than 60 feet bgs) of the Upper Glacial Aquifer and in the underlying Magothy Aquifer in wells located on-site in addition to the wells located upgradient and downgradient of the site. These detections in the deeper zone are believed to be the result of off-site sources other than Circuitron (Weston, 1994). After the FFS was completed,

a ROD for OU-2 was signed on September 30, 1994. The selected remedy consists of the removal of organics and inorganics from the groundwater within the upper portion of the Upper Glacial Aquifer via air stripping and metal precipitation, respectively, and re-injection of the treated groundwater. Groundwater extraction for treatment from the deeper portion of the Upper Glacial Aquifer and the Magothy Aquifer was not included as part of the OU-2 remedy for the site. The major components of the OU-2 remedy include the following:

- Extraction of the site-related groundwater contaminant plume present in the upper 40 feet (top portion) of the saturated Upper Glacial Aquifer;
- Treatment, via precipitation and air stripping, of contaminated groundwater to drinking water standards;
- Re-injection of the treated groundwater into the Upper Glacial Aquifer via an infiltration gallery, and
- Disposal of treatment residuals at a Resource Conservation Recovery Act (RCRA) Subtitle C Facility.

1.2 GROUNDWATER EXTRACTION SYSTEM

For the OU-2 remedy, groundwater flow and contaminant transport modeling was performed (Radian, 1999) to assist in the final design of the treatment system. Specifically, modeling was used to determine the placement and pumping rates of proposed extraction wells. Several scenarios of groundwater extraction well placement and pumping rates were considered for the OU-2 remedy design. The selected design consists of three (3) extraction wells pumping at a total rate of 80 gallons per minute (gpm), a treatment system, and re-injecting treated groundwater into a trench located at the northern (upgradient) end of the site. The system has been operating since June 28, 2000.

Additional groundwater modeling was performed by URS in 2005 to evaluate the effect of halting pumping at downgradient extraction wells RW-2 and RW-3 as recommended in the Streamlined Remediation System Evaluation (RSE-Lite) report (GeoTrans, 2005). The results of the additional modeling and the RSE-Lite report were included as Appendices D and E, respectively, in the 2005 Annual Report.

The groundwater modeling performed by URS evaluated several pump scenarios: the first with RW-1 and RW-2 pumping, and RW-3 shut down; and the second with only RW-1 pumping. The resulting capture zones were compared to the current area where concentrations of 1,1,1-TCA exceed the standard of 5 $\mu\text{g}/\text{L}$. The modeling concluded that the capture zone

created by RW-1 and RW-2 is sufficient to maintain hydraulic control of the affected area. Based on the recommendation of the RSE-Lite report to stop pumping at well RW-3 and supported by the groundwater modeling, RW-3 was shut down on January 5, 2005.

The groundwater extraction system currently consists of two extraction wells (RW-1 and RW-2) each equipped with a submersible well pump and piping that discharges groundwater to an on-site treatment plant. The extraction wells are positioned to pump groundwater from two areas to accomplish groundwater capture around the subject site area. Each well is constructed with a 15-feet long ASTM-A-304 stainless steel screen connected to ASTM-A-304 Schedule 40 stainless steel riser. The bottoms of the well screens for RW-1 and RW-2 were both installed to a depth of 56 feet bgs. The extraction well locations are presented in Figure 1-2. Each extraction well is pumped intermittently based on water levels in the extraction wells and on the water levels in both the equalization tank and in the building sump inside of the groundwater treatment plant (remediation system) building. The results of the 2005 modeling indicate that the combined flow rate of the two extraction wells should be operated at a total flow of 40 gpm.

1.3 GROUNDWATER MONITORING SYSTEM

Currently, there is a network of 19 monitoring wells located at and around the Circuitron site that are used for groundwater monitoring of the OU-2 remedy. Shallow wells are those wells screened in the shallow portion of the Upper Glacial Aquifer that are 34 to 40 feet deep. Deep wells are those wells screened in the deep Upper Glacial Aquifer or Magothy Aquifer that are 99 to 101 feet deep. Of the 19 wells, 12 wells are shallow and seven are deep. For the Performance Monitoring Period of June 2000 to July 2006, water level data and groundwater quality data were collected from each well in the network. Water levels were measured monthly from each well in the network, and groundwater samples were collected quarterly for volatile organic compounds (VOCs) and semi-annually for inorganic analyses. In 2003, well sampling was reduced to annual sampling for VOCs and metals.

Based on URS's recommendations in the 2003 Annual Performance Monitoring Report, USEPA eliminated the requirement for annual metals sampling in the monitoring wells. The sampling method was also changed from the low-flow method to the diffusive bag method. These data are used to assess the performance of the treatment system and are discussed in Sections 3 and 4 of this report.

Starting July 2006, as per USEPA's directions, water level measurements will be measured on a quarterly basis.

1.4 PROCESS OBSERVATIONS AND CHANGES

The Circuitron Project Team evaluated the recommendations of the RSE-Lite Report (January 2005) and with USEPA approval implemented during 2005, those recommendations deemed appropriate. Prior to implementing the recommendation to install extra sets of filter bags, URS performed further evaluation. Based on successful history at other Operation & Maintenance (O&M) sites with citric acid treatment, URS, with the concurrence of the USEPA, started on July 6, 2005 to introduce citric acid after the influent tank. The frequency of the filter bag changes declined, but not consistently. There was no major decrease in the pH at the effluent. In October 2005, as per the recommendations of the RSE report, the liquid carbon units was bypassed and has not been used.

With the success of the citric acid came the fouling of the re-injection trench. Granular citric acid was used initially; however, the trench was getting clogged every few weeks. It was determined that if liquid citric acid was used immediately after a waterjetting event, then the trench lasted for several months. URS believes that this is because waterjetting pushes the iron oxides out of the sand drains and by introducing the liquid citric acid immediately after, it keeps the drains open longer.

A new animal-like scent was noticed during the first weeks of September 2006 inside the treatment building when the process was running. No readings were detected using a multi-Rae photoionization detector (PID) and an oxygen/lower exposure limit (O_2/LEL) meter. This scent has diminished thus far. If it returns, URS will collect an air sample for VOC analysis.

1.5 SUMMARY OF INVESTIGATION OF CHLORINATED SOURCE

Response Engineering and Analytical Contract (REAC) personnel provided technical assistance to USEPA Region II and performed an investigation of the unsaturated/saturated zone in the southwestern corner of the Circuitron Corporation site, near wells MW-4S and MW-4D to determine if a residual source of 1,1,1-TCA remains. The results of this investigation were published by REAC in April 7, 2006 and are briefly summarized below.

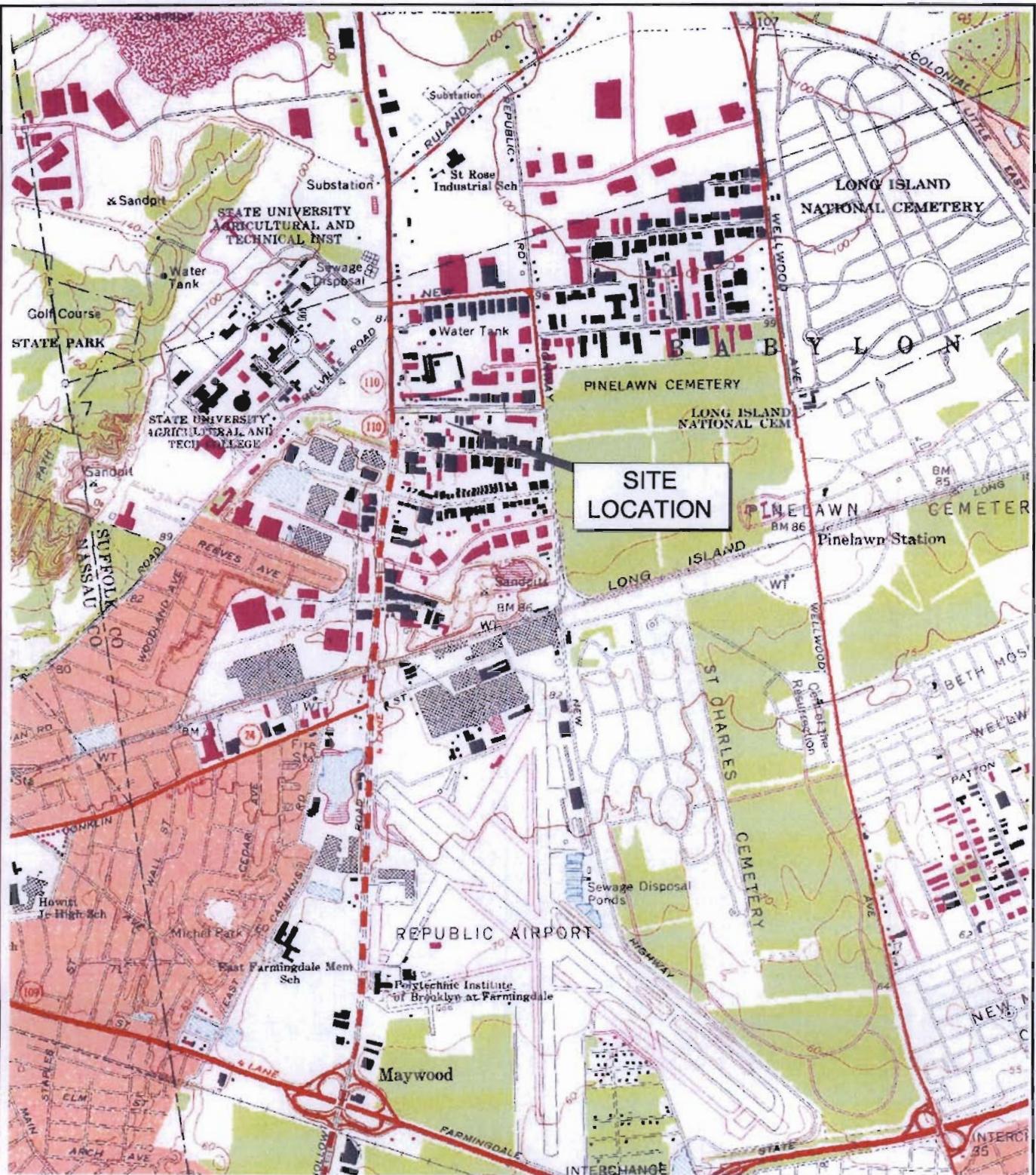
During November 2005, REAC utilized the direct push method to install and sample 40 soil borings and 22 temporary monitoring wells in the southwestern corner of the Circuitron

Corporation site, predominately near wells MW-4S and MW-4D. The soil borings provided continuous cores to a total depth of between 25 and 35 feet bgs. Based on screening of the soil cores for total VOCs using a Flame Ionization Detector (FID), 63 soil samples were analyzed using an on-site portable gas chromatograph/mass spectrometer (GC/MS) for VOC Target Compound List, which included TCE and PCE. Six of these soil samples were sent to an analytical laboratory for confirmation. Twenty-two (22) one-inch diameter temporary monitoring wells were installed to a depth of 5 feet below the water table (total depth of 35 ft bgs). Groundwater samples were obtained from each of these 22 wells and from existing wells MW-1S, -1D, -4S and -4D using disposable bailers. The groundwater samples were analyzed for VOCs using an on-site GC/MS and six samples were sent to an analytical laboratory for confirmation.

The results of this effort indicated:

- a) An accumulation of TCA dissolved in groundwater surrounding well MW-4S, with a maximum TCA concentration of 1,600 µg/l from temporary monitoring well SD-3, which is located 5 to 10 feet north of well MW-4S.
- b) An accumulation of PCE dissolved in groundwater with a maximum contraction of 150 µg/l from temporary well R3, which is located approximately 50 feet north of well MW-4S.
- c) An approximate 15-20 foot diameter area of soil, generally centered around well MW-4S, where TCA has been detected with a maximum soil concentration of 21,900,000 µg/kg at a depth of 15 ft bgs.
- d) An approximate 10-15 foot diameter area of soil, located approximately 50 feet north of well MW-4S, where PCE has been detected with a maximum soil concentration of 17,200 µg/kg.

In June 2006, REAC returned to the site to collect additional soil samples. A report is being prepared for EPA.



0 2000 4000
SCALE (FEET)



MAP SOURCE:

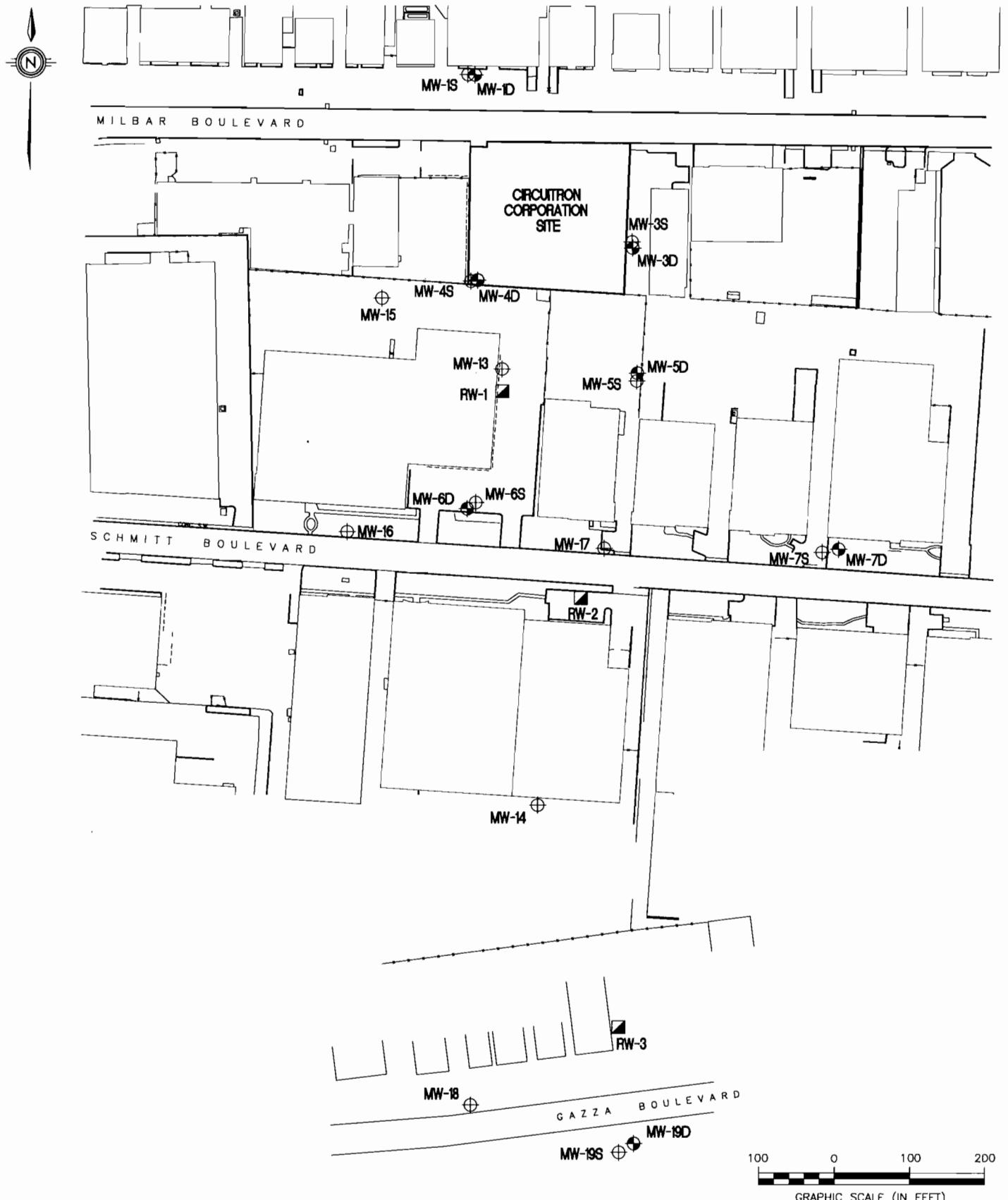
U.S.G.S. 7.5 MINUTE SERIES QUADRANGLES OF HUNTINGTON, N.Y., DATED 1967, PHOTOREVISED 1979 AND AMITYVILLE, N.Y. DATED 1969, PHOTOREVISED 1979.

SITE LOCATION MAP
CIRCUITRON CORPORATION SUPERFUND SITE
EAST FARMINGDALE, NEW YORK

URS

WAYNE, NEW JERSEY

DR. BY	JL	SCALE AS SHOWN	DWG. FIG 1-1.DWG	PROJ. NO. 19683807
CK'D. BY	BB	DATE	DEC 17, 2002	FIG. NO. 1-1



LEGEND

- ⊕ SHALLOW MONITORING WELL
- ◆ DEEP MONITORING WELL
- RECOVERY WELL

Site Map

Circuitron Corporation Superfund Site
East Farmingdale, New York

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Section 2.0

2.0 TECHNICAL APPROACH

This evaluation assesses changes in the concentrations of compounds dissolved in groundwater relative to the observed zone of capture using hydraulic and water quality data collected during the Performance Monitoring Period, which extended from January 1999 to July 2006. Isoconcentration maps, groundwater elevation contour and flow maps, and geochemical time-series graphs are used to assess the effectiveness of the remediation system for treating the groundwater present in the shallow portion of the Upper Glacial aquifer. Portions of the deep Upper Glacial Aquifer and the Magothy Aquifer are being monitored for changes in groundwater chemistry over time; therefore, time-series graphs were prepared for wells screened within this zone. However, the overall effectiveness of the remediation system is based solely on the results in the Upper Glacial Aquifer, as described in the Record of Decision (ROD).

2.1 GROUNDWATER CONTOUR AND FLOW MAPS

Groundwater elevation contour maps were prepared for the groundwater present in the shallow portion of the Upper Glacial aquifer beneath the site. The effectiveness of the remediation system to induce groundwater capture is indicated by comparing the groundwater flow pattern under pumping conditions to the modeled capture zone. Compounds dissolved in the groundwater obtained from the wells within the capture zone will be transported toward one of two pumping wells. Groundwater capture is demonstrated if groundwater flow lines are directed toward one of the two extraction wells, as indicated by groundwater elevation contour maps prepared under pumping conditions. This assessment is presented in Section 3.

2.2 GROUNDWATER QUALITY

Groundwater quality was evaluated by preparing isoconcentration maps and geochemical time-series graphs from the sampling data obtained during the Performance Monitoring Period. Data from sampling events that occurred prior to startup of the remediation system, May 1993/February 1994 and mid-June 2000, were used as the benchmark to represent pre-remediation baseline groundwater quality conditions. These data were used to identify which volatile organic compounds (VOCs) are potentially related to historical activities at the site (site-related) or believed to not have been related to historical activities at the site (non site-related). This is discussed more fully in Section 4 of this report.

Isoconcentration contour maps were prepared using data obtained from the June 2000, January/February 2002, April 2003, June 2004, June 2005, and July 2006 sampling events

for various VOCs and inorganic analytes for groundwater obtained from the shallow aquifer. Beginning in June 2004, only VOC samples were collected for analysis as agreed to by USEPA. Based on USEPA's request, only one diffusion bag was utilized for sampling the wells during the June 2005 sampling event and also during the 2006 sampling event. The bag was placed one foot above the bottom of the well. Because USEPA requested additional analytes from wells MW-1S, MW-4S and MW-13, groundwater from these three wells was collected for the 2006 event using the low flow method. The additional analytes included:

- alkalinity
- sulfate (SO_4^{2-})
- sulfide
- nitrate
- chloride
- Total organic compounds (TOC)
- iron (II) (Fe^{+2})
- ethane
- ethene
- methane
- oxidation - reduction potential
- pH
- temperature
- specific conductivity
- dissolved oxygen
- turbidity

Previous data were submitted to the USEPA and United States Army Corps of Engineers (USACE) as part of the Operation and Maintenance Monthly Progress Reports for the site. Comparison of the isoconcentration maps to the groundwater flow paths can be used to document that the remediation system is effectively remediating compounds dissolved in groundwater. This evaluation is presented in Section 4 of this report.

Geochemical time-series graphs provide an effective technique for documenting trends over time in groundwater quality from a given well. Time-series graphs were prepared by plotting concentration levels versus time for compounds detected in groundwater samples from

both the shallow and deep monitoring wells. Data obtained from the deeper Upper Glacial and Magothy Aquifer wells were prepared to document changes in groundwater chemistry over time because these wells are included in the Performance Monitoring Program. However, the assessment of the OU-2 remedy is solely based on the results from the shallow Upper Glacial Aquifer.

Section 3.0

3.0 GROUNDWATER FLOW

Water level measurements from each accessible monitoring well were collected in January 1999, prior to the startup of the full-scale remediation system operation in late June 2000. Groundwater level data from January 1999 (Figure 3-1a) and mid-June 2000 (Figure 3-1b) were used to establish baseline conditions of groundwater flow within the upper portion of the Upper Glacial Aquifer under non-pumping conditions. After commencement of the remediation system operation in late June 2000, water level measurements were collected monthly from each accessible monitoring well. Beginning in January 2005, pumping was halted at the most downgradient extraction well RW-3. Groundwater level data was collected during 2006 monthly up through June 2006, after which groundwater level data is planned to be collected quarterly.

Evaluation of the groundwater flow pattern is limited to the Upper Glacial Aquifer because this zone is the target of the remediation system. Therefore, to evaluate groundwater flow patterns within the upper portion of the Upper Glacial Aquifer, groundwater contour maps were prepared to show hydraulic gradients and flow patterns under pumping and non-pumping conditions. In addition, groundwater flow patterns for August 2002 (Figure 3-1c), April 2003 (Figure 3-1d), March 2004 (Figure 3-1e), June 2005 (Figure 3-1f), and June 2006 (Figure 3-1g) are compared to the modeled capture zone estimated from groundwater modeling. The comparison of measured versus modeled capture zones for August 2002, April 2003, March 2004, June 2005, and June 2006 are presented in Figures 3-2, 3-3, 3-4, 3-5, and 3-6, respectively. Figures 3-5 and 3-6 illustrate that in June 2005 and June 2006, two extraction wells were pumping in the Upper Glacial Aquifer.

Hydrographs showing groundwater elevation over time were prepared for each well (Appendix C). These graphs indicate that the hydrographs for the individual wells generally (with a few notable exceptions) parallel one another and the hydraulic gradient has remained essentially constant during this Performance Monitoring Period.

3.1 BASELINE CONDITIONS

The baseline groundwater flow pattern recorded in January 1999 (Figure 3-1a) and June 2000 (Figure 3-1b) represents hydraulic conditions prior to operating the remediation system. These data show that groundwater flow is to the south/southeast with a hydraulic

gradient between 0.002 ft/ft and 0.004 ft/ft within the upper portion of the Upper Glacial Aquifer during January 1999 and June 2000.

3.2 PUMPING CONDITIONS

Figures 3-1c – 3-1g show the groundwater contour map and the flow pattern within the upper portion of the Upper Glacial Aquifer under pumping conditions during August 2002, April 2003, March 2004, June 2005, and June 2006 while the system was fully operational.

The groundwater flow pattern indicates transport toward the south with a bi-directional flow component on either side of a north-south line connecting the recovery wells. West of this line, flow is predominantly to the southeast. East of this line, flow is to the southwest. The effects of pumping groundwater are evident as groundwater contours are partially wrapped around each recovery well. Groundwater flow patterns and zone of capture for August 2002, April 2003, March 2004, June 2005, and June 2006 are presented in Figures 3-2, 3-3, 3-4, 3-5 and 3-6, respectively. Pumping well RW-3 was turned off in January 2005. The groundwater flow paths leading to a recovery well indicates capture by that recovery well.

Table 3-1 presents hydraulic gradients observed in June 2000 (pre-pumping), August 2002, April 2003, March 2004, June 2005 (pumping), and June 2006 conditions. A comparison of the gradients measured in August 2002, April 2003, March 2004, June 2005, and June 2006 at which time the treatment system was operational, shows that gradients in the northern portion of the site are very similar; but that gradients are steeper around well MW-14 during the April 2003 measurements.

3.3 CAPTURE ZONE: MODELED VS. OBSERVED

Groundwater flow and contaminant transport modeling was performed by Radian International in 1999 to assist in the final design of the OU-2 remediation system. The selected design model predicts the extent of the capture zone as a result of pumping groundwater for treatment (Radian, 1999). Additional modeling was performed in 2005 to support the decision to stop pumping RW-3 (Appendix D of the 2005 Annual Report).

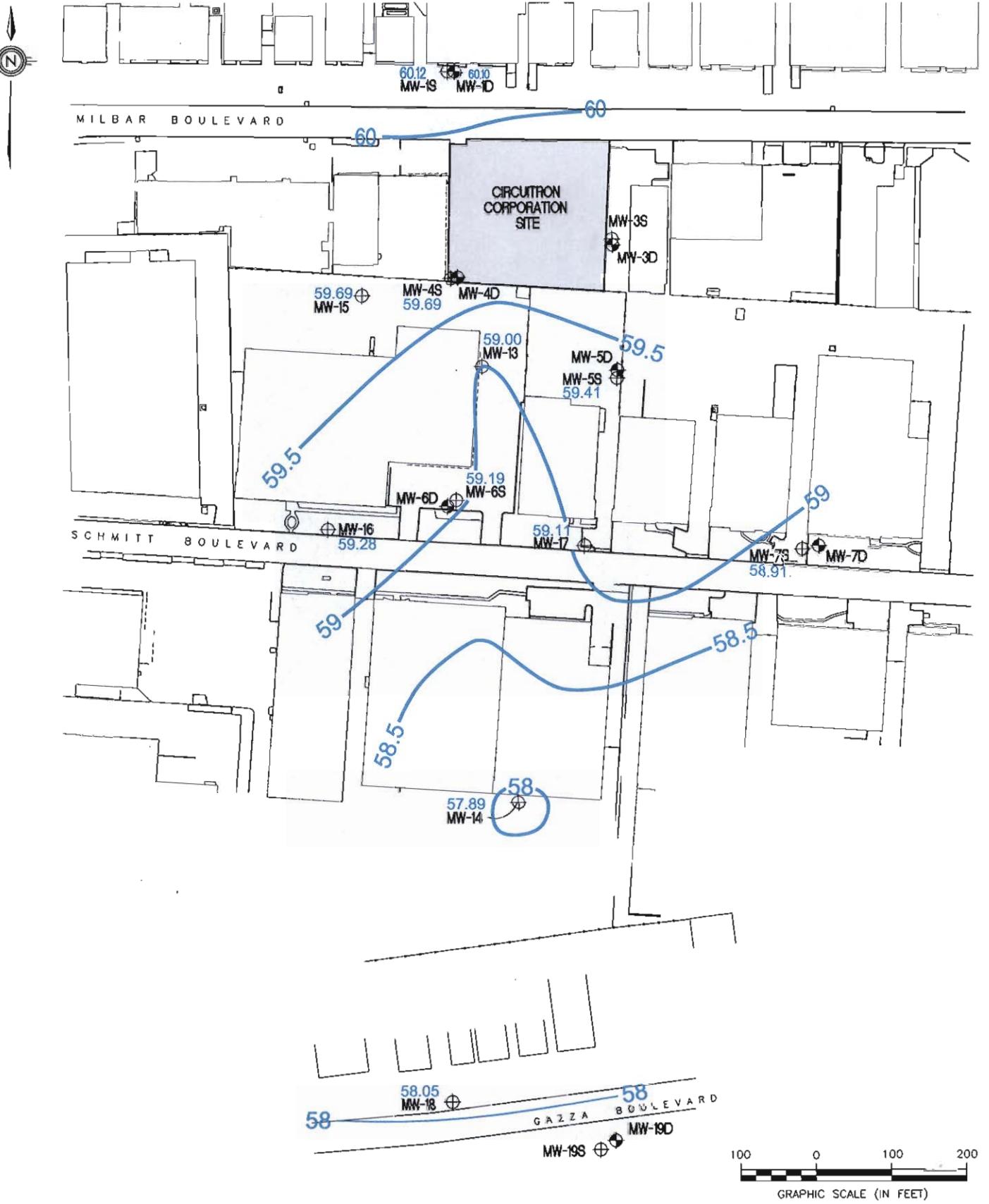
Figures 3-2, 3-3, 3-4, 3-5, and 3-6 show the modeled capture zone within the upper portion of the Upper Glacial Aquifer for the groundwater contours and flow paths from August 2002, April 2003, March 2004, June 2005, and June 2006, respectively, superimposed on the modeled capture zone. Each flow path within the modeled capture zone is flowing towards one

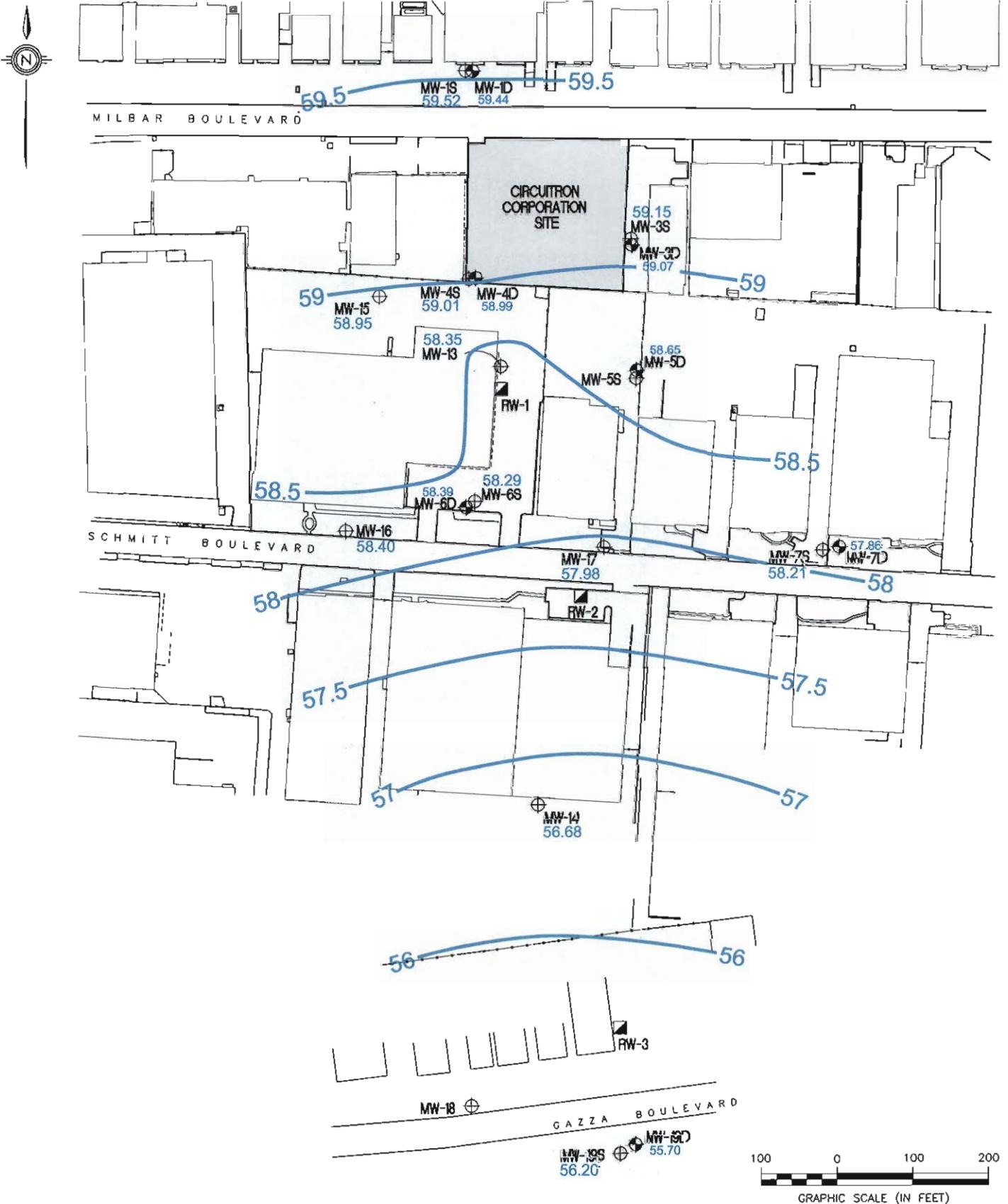
of the recovery wells, showing the complete capture of groundwater within the target area by the remediation system. The August 2002 capture zone is slightly larger than the modeled capture zone because flow paths near wells MW-7S and MW-16 are directed into the modeled capture zone. The capture zone from June 2005 is smaller than the capture zone defined for March 2004. The decrease in size is the result of discontinuing pumping at RW-3. However, as supported in the URS 2005 modeling report (Appendix D, 2005 Annual Report) the reduced capture zone still encompasses the geographic area where 1,1,1-TCA concentrations in groundwater are above the groundwater standard of 5 µg/L. The capture zone from June 2006 is similar to what was observed in 2005 and encompasses the geographic area where 1,1,1-TCA concentrations in groundwater are above the groundwater standard of 5 µg/L.

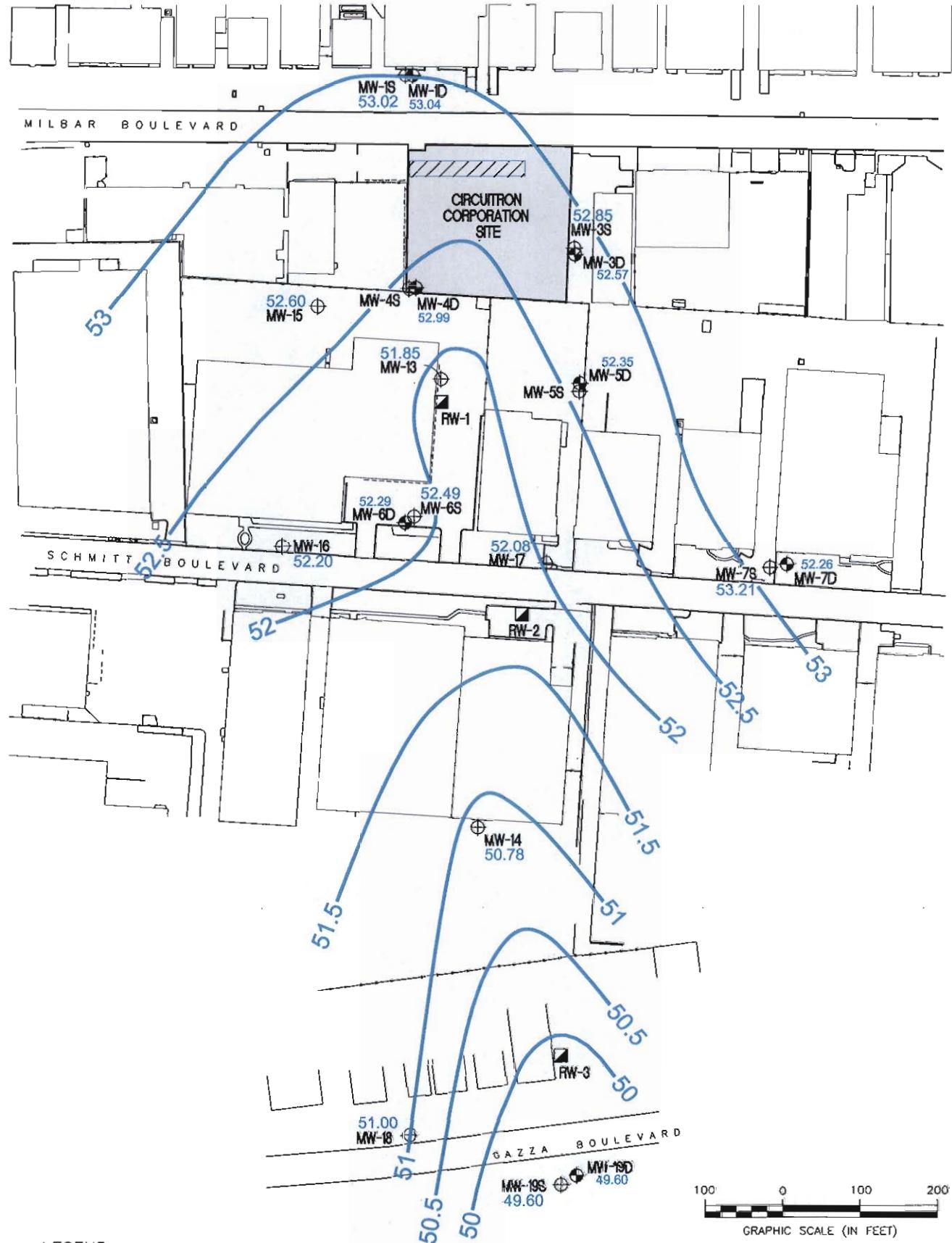
**Table 3-1. Horizontal Gradients (feet/feet) Upper Glacial Aquifer,
Circuitron Corporation Superfund Site**

Date	Traverse*			
	MW-15 (Northwest)	MW-5 (Northeast)	MW-14 (Southwest)	MW-14 (Southeast)
June 2000 (pre-pumping)	0.002	0.002	0.004	0.004
August 2002 (pumping)	0.003	0.005	0.004	0.005
April 2003 (pumping)	0.004	0.004	0.006	0.008
March 2004 (pumping)	0.002	0.002	0.006	0.006
June 2005 (pumping)	0.003	0.002	0.003	0.003
June 2006 (pumping)	0.003	0.002	0.003	0.003

*Traverses used to calculate gradients are centered on these wells and follow the flow paths which are at right angles to groundwater contours.



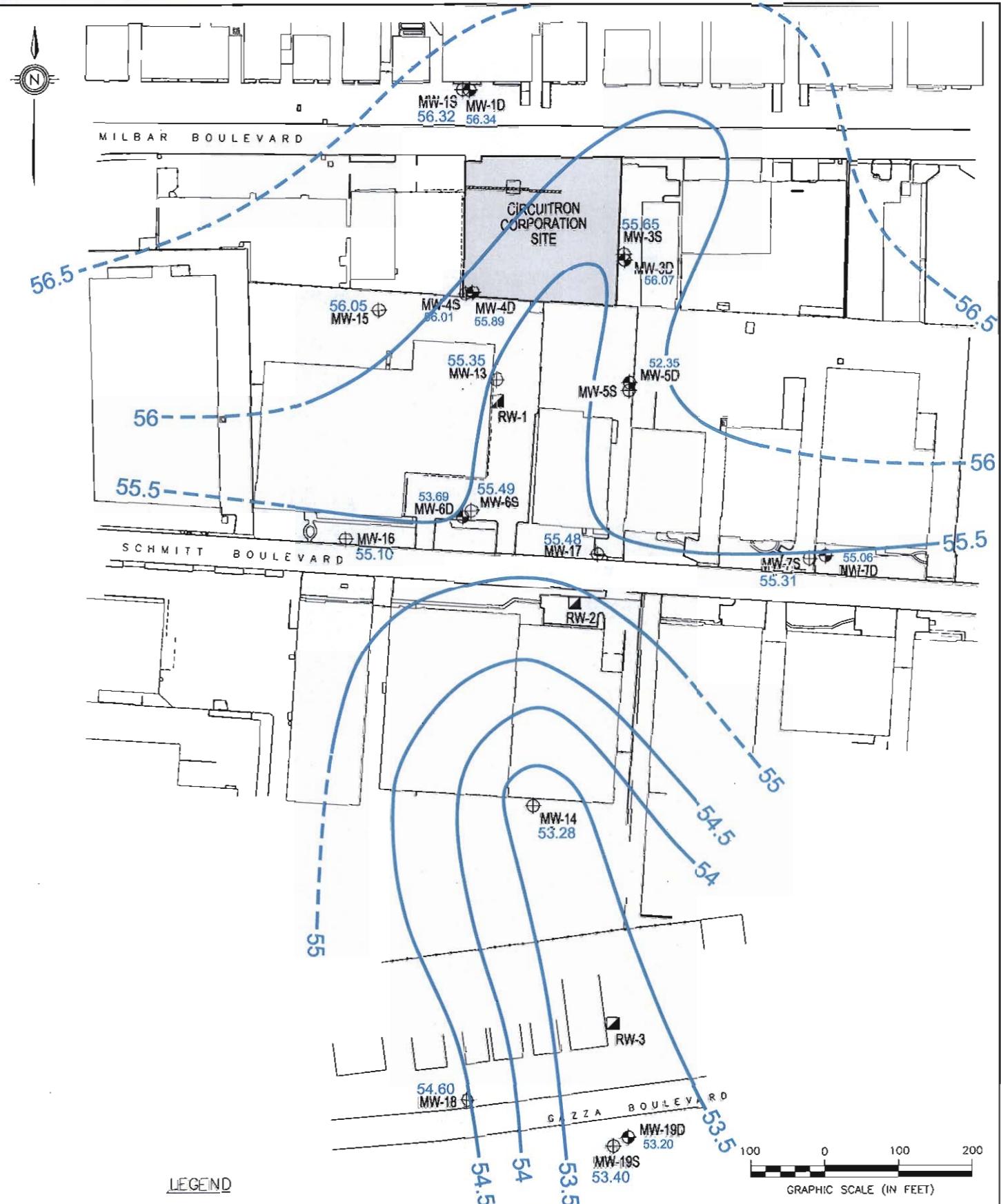




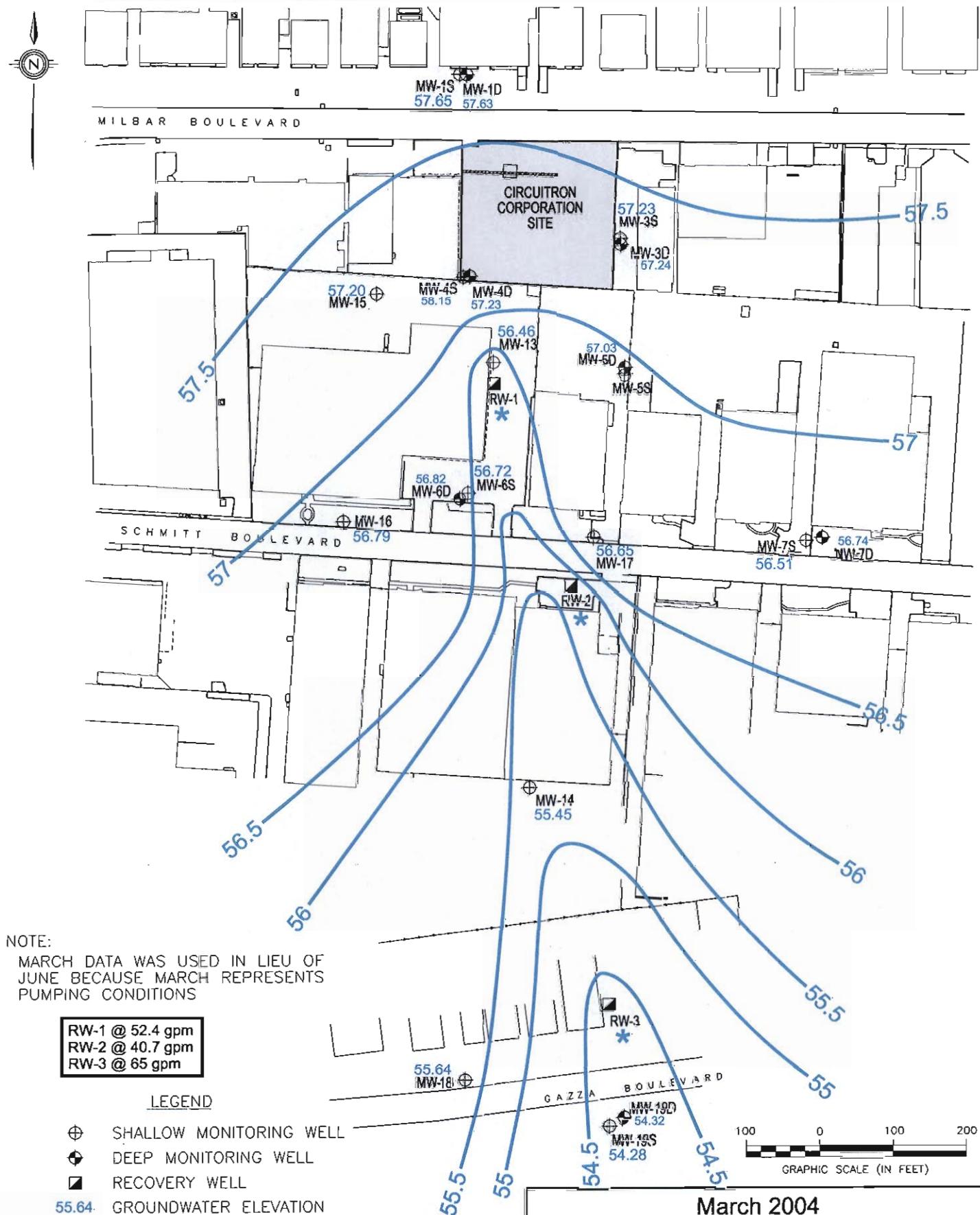
LEGEND

- ⊕ SHALLOW MONITORING WELL
- ◆ DEEP MONITORING WELL
- RECOVERY WELL
- 51.00 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- ▨ NORTHERN INJECTION TRENCH



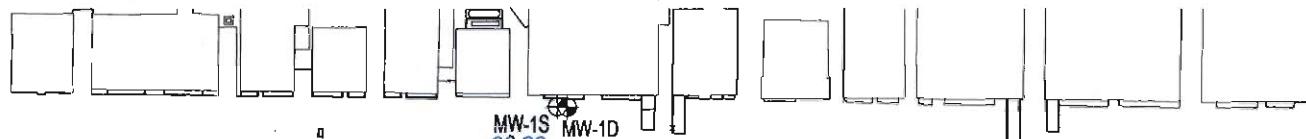


- 56.32 MW-1S
 56.34 MW-1D
 56.5 MW-15
 56.05 MW-4S
 56.01 MW-15
 55.89 MW-4D
 55.35 MW-13
 53.69 MW-6D
 55.49 MW-6S
 55.10 MW-16
 55.48 MW-17
 55.31 MW-7S
 55.06 MW-7D
 53.28 MW-14
 54.60 MW-18
 53.20 MW-19D
 53.40 MW-19S

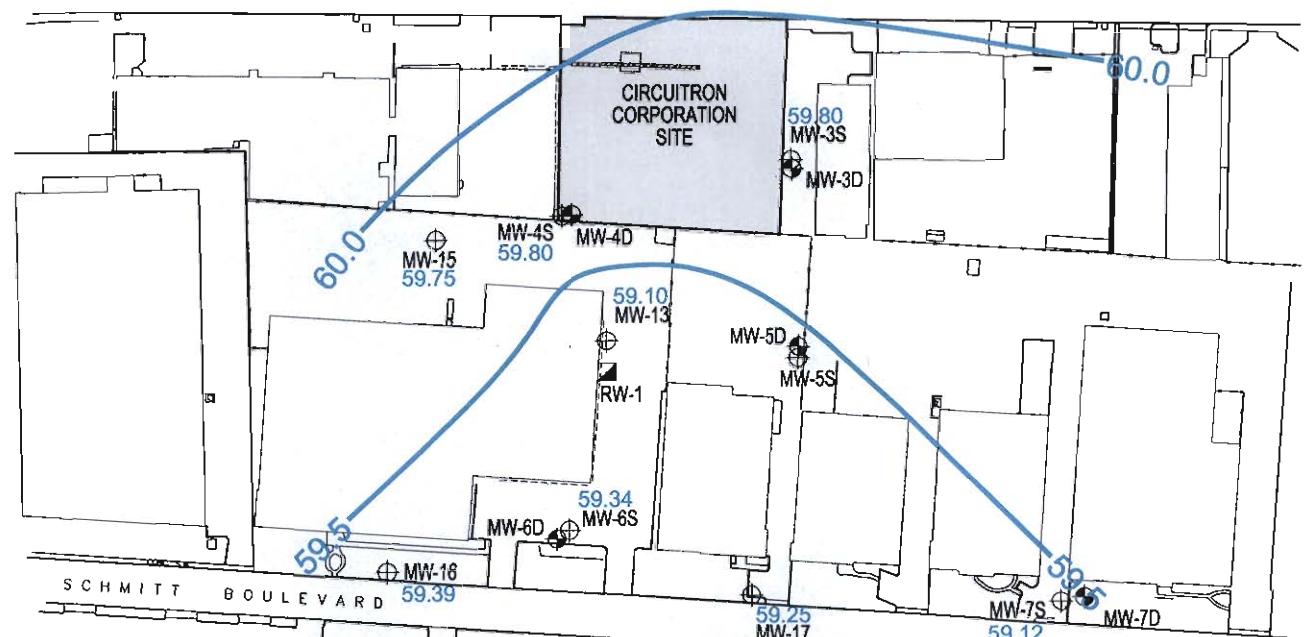


March 2004
Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

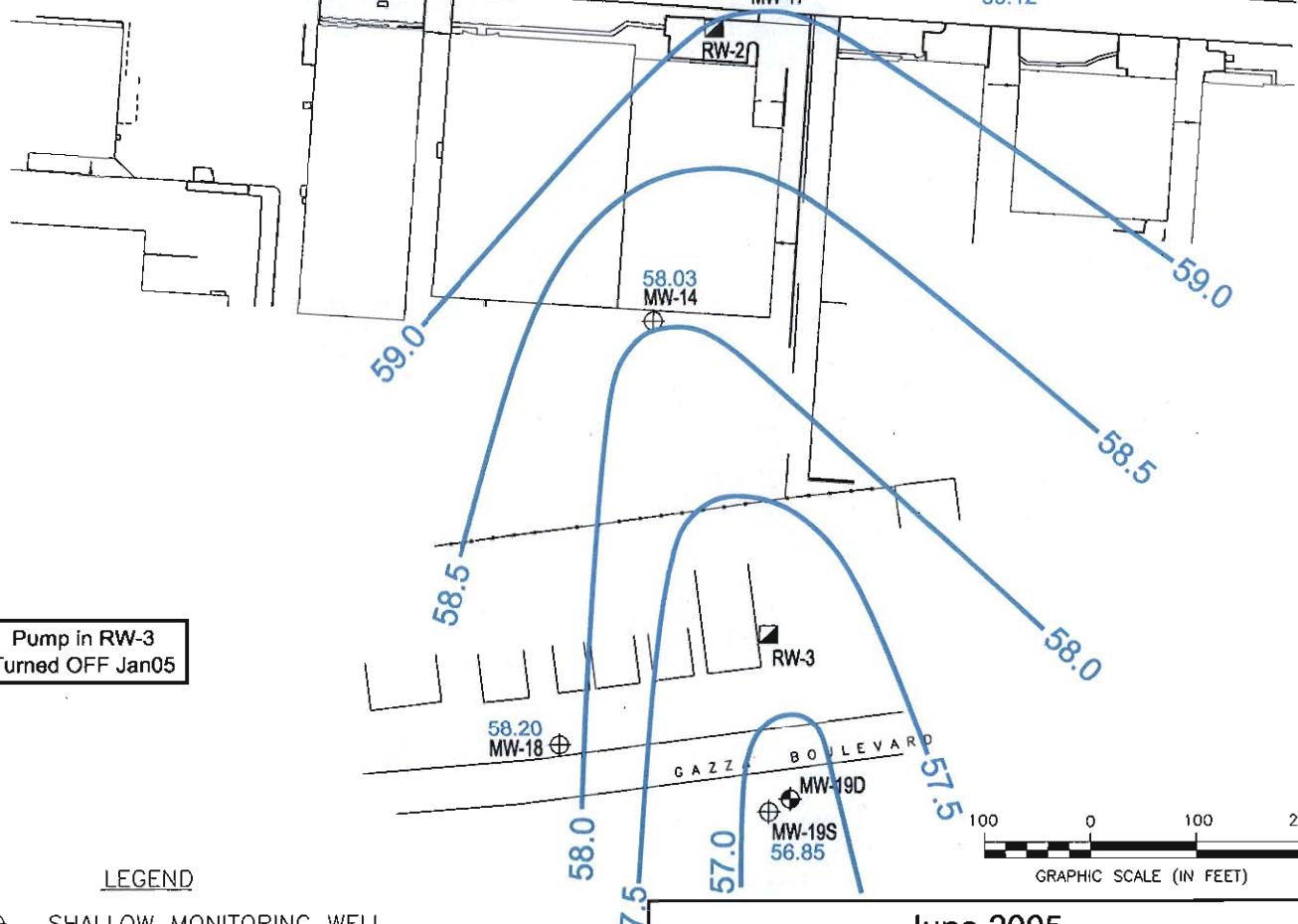
URS



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LEGEND

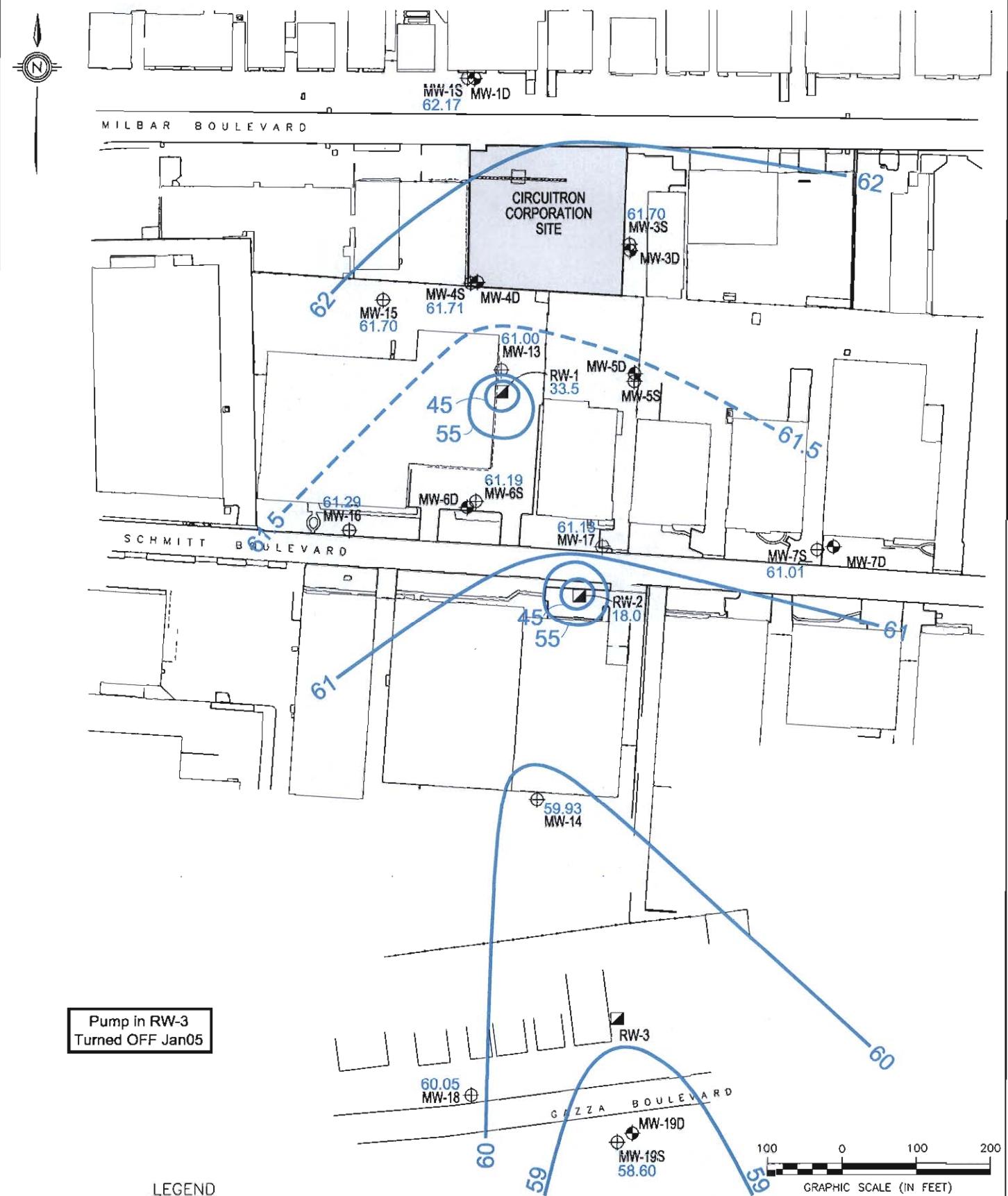
- ⊕ SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY WELL
- 55.64 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- - - REINJECTION TRENCH AND MANHOLE

GRAPHIC SCALE (IN FEET)

June 2005
Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer

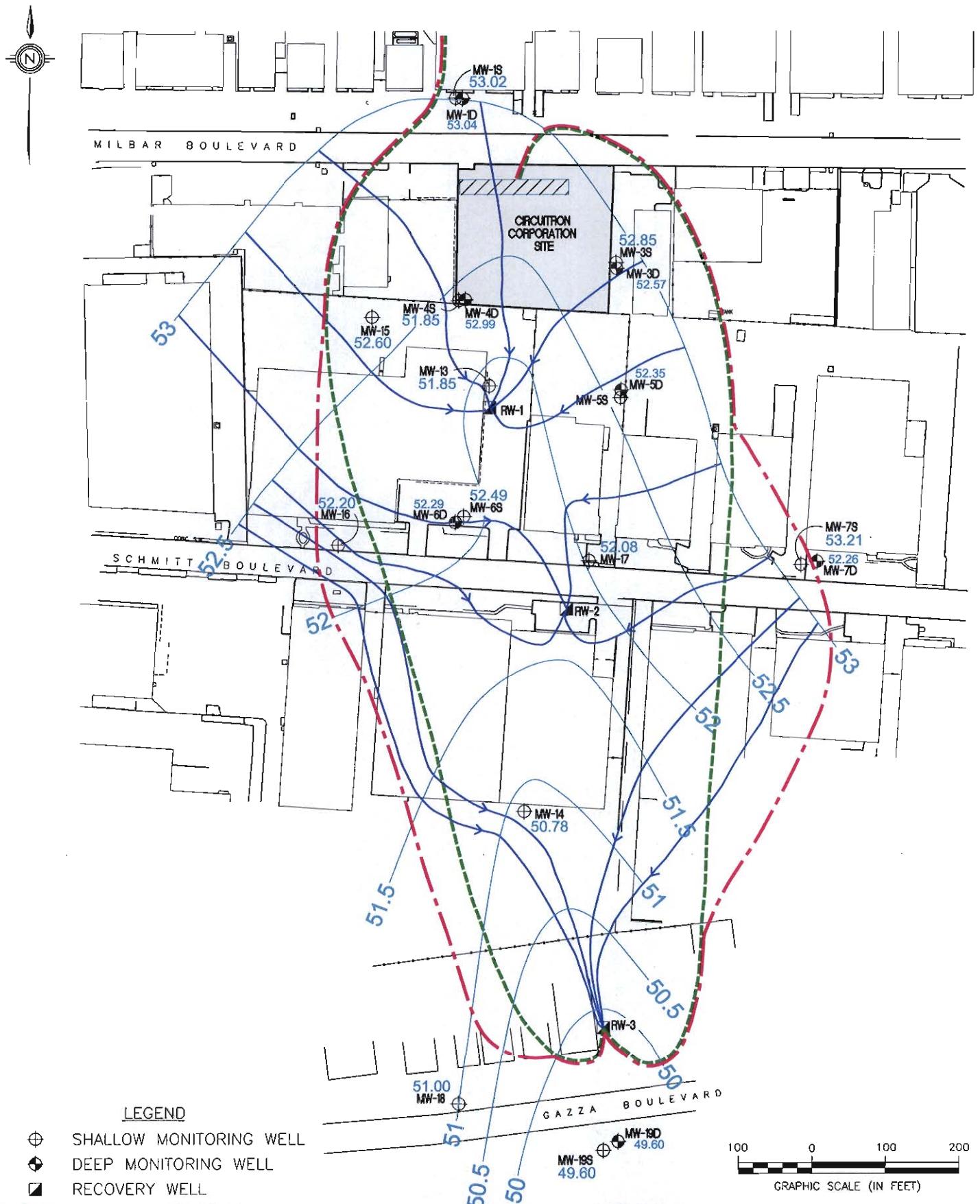
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



June 2006
Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

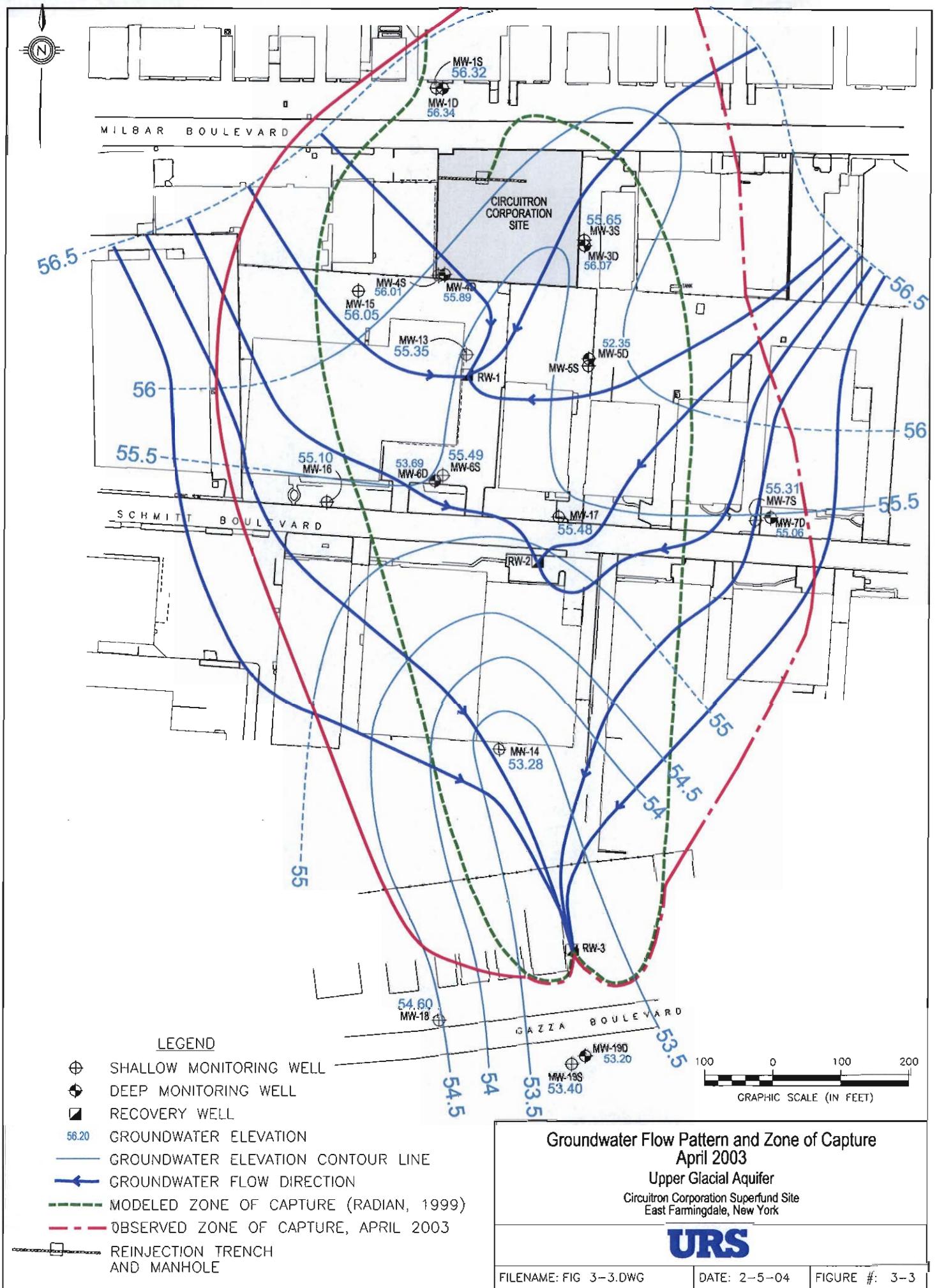
URS

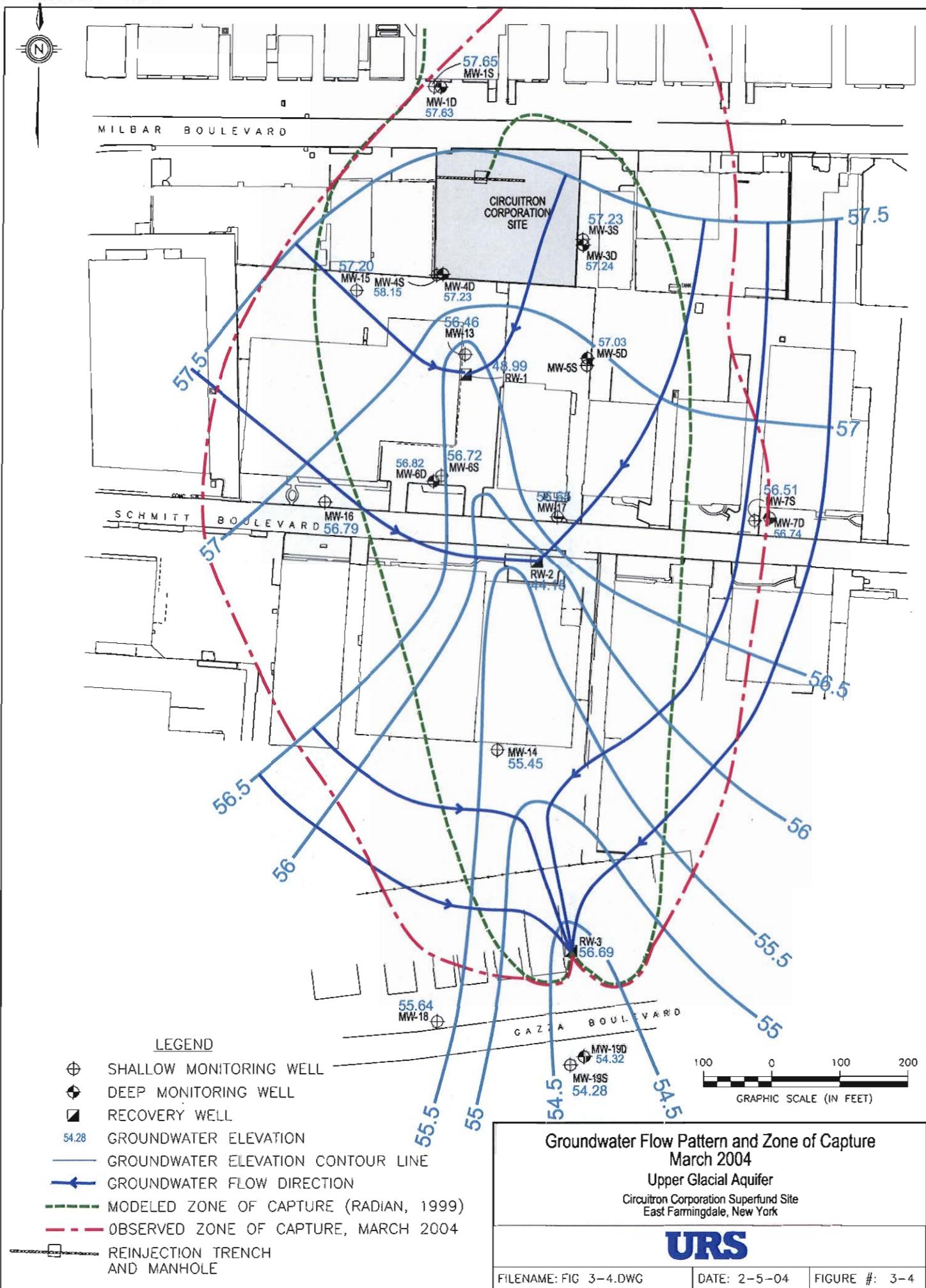


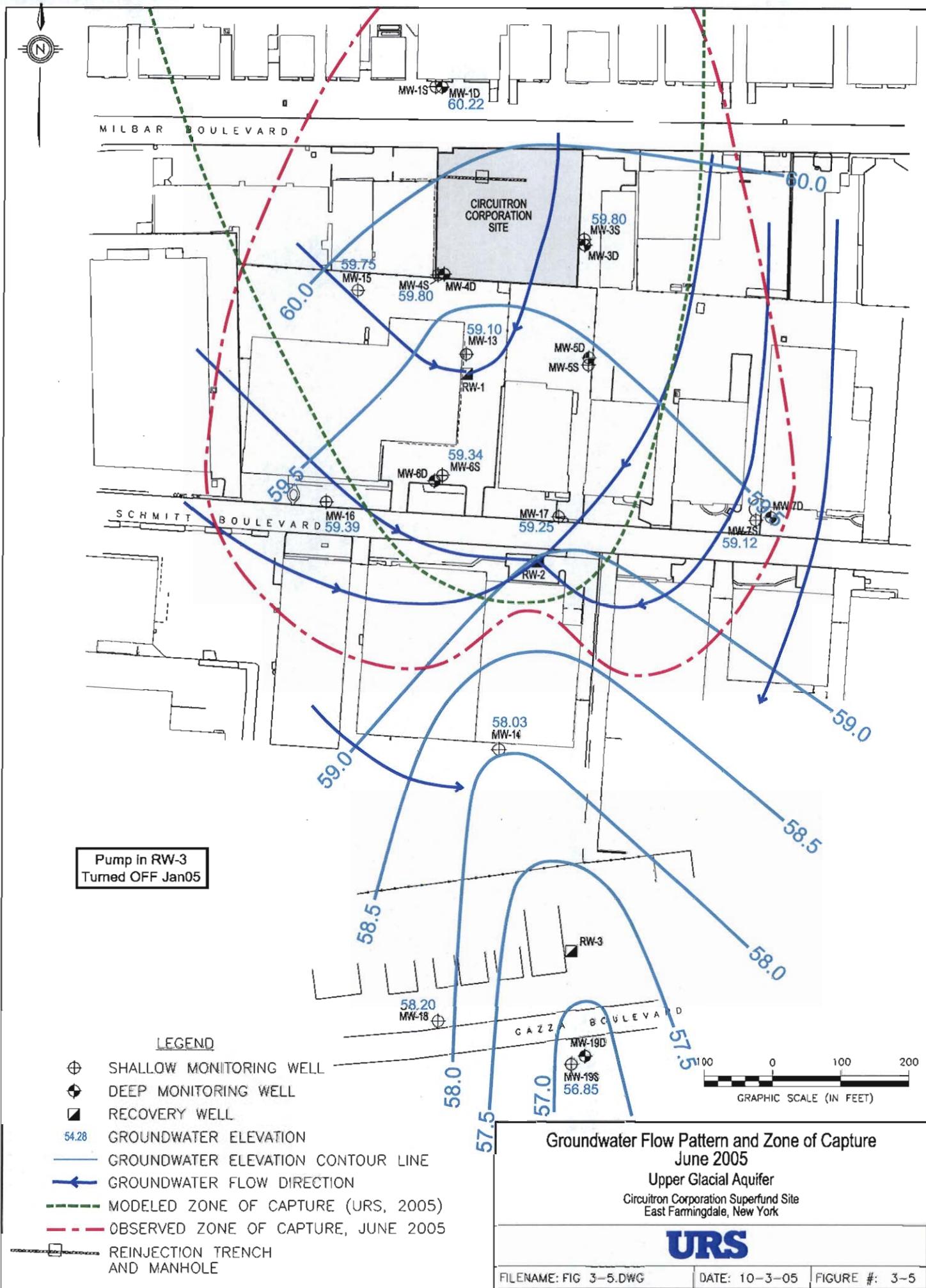
Groundwater Flow Pattern and Zone of Capture
August 2002

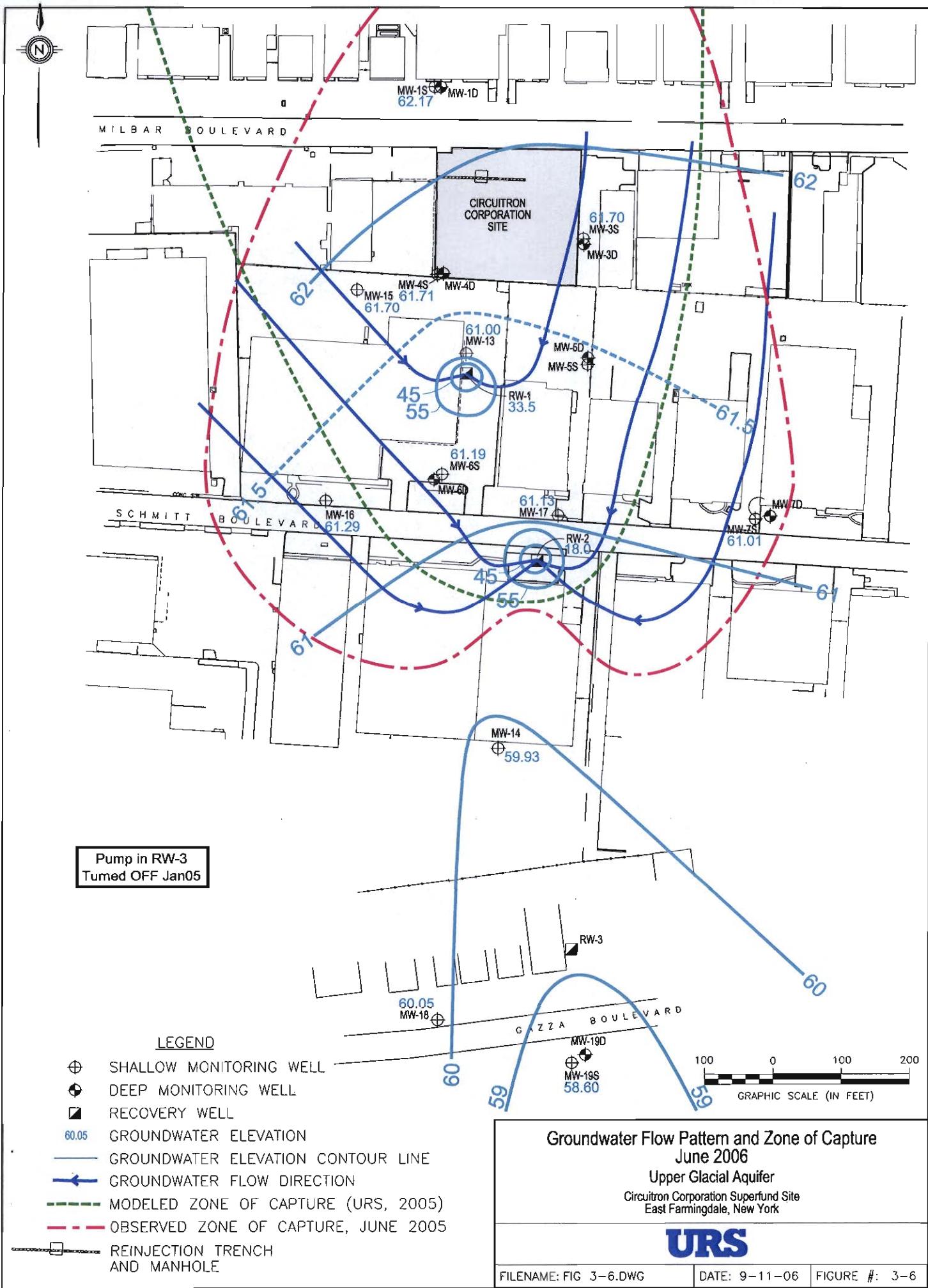
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS











4.0 GROUNDWATER QUALITY

During the period from June 28, 2000 to July 2006, when the OU-2 remedy was operating, groundwater samples were collected from up to 19 monitoring wells at the site. These data (presented in Appendices A-1, A-2, and A-3) were used to evaluate changes of the concentrations of compounds dissolved in the groundwater during the Performance Monitoring Period. Data from sampling events that occurred prior to startup of the remediation system, May 1993/February 1994 and mid-June 2000, were used as the benchmark to represent pre-remediation baseline groundwater quality conditions.

This section discusses the distribution of compounds detected in the shallow groundwater using isoconcentration contour maps and time-series graphs. Time-series graphs for seven deep wells included in the Performance Monitoring Program were also prepared to show trends in the deeper zone of the Upper Glacial Aquifer over time and are presented in Appendix B.

4.1 EXCEEDANCES OF ACTION LEVELS

Exceedances are defined, for the purposes of this report, as analyzed groundwater samples that have volatile organic compounds (VOCs) or metals detected at levels exceeding the applicable Federal or State Groundwater Drinking Water Standards. These standards are referred to in this report as Action Levels. Multiple exceedances observed in the groundwater from the wells located outside the observed capture zone may provide data to allow recommending a change in the operation of the remediation system. Single exceedances may be anomalous and therefore, recommendations for changing the operation of the remediation system will be based on a pattern of multiple exceedances. Table 4-1 summarizes the exceedances observed in the groundwater from each well, and Figures 4-1a and 4-2a show exceedances of VOC compounds observed in the groundwater sampled from the shallow and deep wells in map views. Appendix A-2 contains the historical summary data for each monitoring well.

Of all of the shallow wells, there are two, MW-18 and MW-19S, that are located outside of the capture zone. In the past, groundwater samples collected from MW-18 showed multiple exceedances of methylene chloride (see Appendix A-2). Groundwater samples collected from MW-19S showed multiple exceedances of methylene chloride, and single exceedances of 1,1-dichlorethane (1,1-DCA) and 1,1,1-trichlorethane (1,1,1-TCA) (see Appendix A-2). Methylene chloride is not representative of groundwater contamination because

most of the associated method blanks also showed detections of methylene chloride, and therefore, such exceedances were not used in this evaluation and are not shown on Figure 4-1a.

4.2 SITE-RELATED COMPOUNDS VS. NON SITE-RELATED COMPOUNDS

For the purposes of this document, the following criteria was used to determine if a compound is potentially related to historical activities at the site (site-related) or believed to not have been related to historical activities at the site (non site-related). The effectiveness of the remediation system will be evaluated by the presence of compounds that are believed to be site-related. Compounds that are judged to be non site-related will not be used to determine the remediation system effectiveness.

A compound will be considered site-related if:

- a) It was not observed as an exceedance in the groundwater obtained from the upgradient well prior to the remediation system startup (May 1993/February 1994 and June 2000 sampling events) and was observed as an exceedance in the groundwater from a site well during more than one sampling event; or
- b) It formed from naturally occurring biodegradation, such as dichloroethenes and dichloroethanes, if the parent compound (e.g., PCE, TCE or 1,1,1-TCA) is considered to be site-related (i.e., not observed as an exceedance in the groundwater from the upgradient well).

A compound will be considered as non site-related if:

- a) It was observed as an exceedance in the groundwater from the upgradient well prior to the remediation system startup (May 1993/February 1994 and June 2000 sampling events); such compounds are considered to be background; or
- b) It formed from naturally occurring biodegradation, such as dichloroethenes and dichloroethanes, if the parent compound (e.g., PCE, TCE or 1,1,1-TCA) is considered to be non site-related, (i.e., observed as an exceedance in the groundwater from the upgradient well).

Data presented in Section 3 has shown that the remediation system has captured groundwater within the target zone. Therefore, site-related compounds that are observed as exceedances in groundwater from site wells are being captured by the remediation system. Additionally, site-related compounds which have been observed as exceedances in groundwater from downgradient well MW-19S have not been captured by the remediation system.

4.3 ISOCONCENTRATION MAPS

Isoconcentration maps were prepared for sampling events conducted in June 2000, January/February 2002, April 2003, June 2004, June 2005, and July 2006 and are presented in Figures 4-3(a-f) and 4-4(a-f). Data from January/February 2002 was used in place of August 2002 data because dry conditions prevented sampling of shallow monitoring wells (MW-4S, MW-6S, and MW-7S) at that time. Isoconcentration maps were created for organic [1,1-dichloroethane (1,1-DCA) and 1,1,1-trichloroethane (1,1,1-TCA)], which had exceedances observed in the groundwater from downgradient well MW-19S.

4.3.1 VOC Exceedances in Shallow Wells

Figure 4-1a and Table 4-1 provide a summary of the exceedances of VOCs observed to have been present in the groundwater samples from the shallow wells. Concentrations of 1,1-DCA and 1,1,1-TCA exceeded their respective action levels in the groundwater samples collected from downgradient well MW-19S.

Isoconcentration contours of these compounds were prepared for the June 2000, January/February 2002, April 2003, June 2004, June 2005, and July 2006 data and are presented in Figures 4-3a to 4-3f (1,1-DCA) and Figures 4-4a to 4-4f (1,1,1-TCA). Concentrations of 1,1-DCA found in the groundwater for February 2002, April 2003, June 2004, June 2005, and July 2006 are considerably less than the levels present in June 2000, and in all cases were below the action level of 5 µg/L. The most notable change in the isoconcentration maps for 1,1,1-TCA is the area encompassed by the 5 µg/L action limit contour. In April 2003, June 2004, and June 2005 this area is less than one quarter of the size that it was in June 2000. The data from July 2006 indicate all locations, except for well MW-4S, exhibited less than 5 µg/l. These significant reductions in the mass of 1,1,1-TCA in groundwater are evidence that the remediation system is effectively capturing this constituent in the shallow groundwater at the site.

The July 2006 data indicate only one well (MW-4S) exhibited levels of VOCs exceeding NY Water Quality Criteria (Figure 4-1a). Additionally, the only VOCs observed in groundwater obtained from well MW-4S to exceed NY Water Quality Criteria in July 2006 was TCA; all other VOCs in groundwater from MW-4S were less than 5 µg/l. This indicates the success of the remediation system at capturing VOCs in the shallow aquifer. Groundwater obtained from well MW-4S historically showed the greatest level of VOCs than any other monitoring well (Figure 4-1a). Levels of VOCs (1,1-DCA, 1,1-DCE, 1,1,1-TCA, PCE) detected in groundwater from this well have consistently declined since October 2000. Levels of 1,1-

DCA have declined from 14 µg/l to less than 5 µg/l. Levels of 1,1-DCE have declined from 22 µg/l to less than 5 µg/l. Levels of 1,1,1-TCA have declined from 860 µg/l to between 310 and 85 µg/l. Levels of PCE have declined from 19 µg/l to less than 5 µg/l.

4.3.2 VOC Exceedances in Deep Wells

Figure 4-2a and Table 4-1 provide a summary of the exceedances of VOCs present in groundwater samples from the deep wells. These data show that multiple exceedances of 1,1-DCA, 1,1-DCE, 1,1,1-TCA, PCE, TCE, 1,2-dichloroethene (total) (1,2-DCE), and methylene chloride were observed in the groundwater from various deep wells. These data also show that multiple exceedances of 1,1-DCE, 1,1,1-TCA, PCE and TCE were present in the groundwater from upgradient well MW-1D, indicating these specific compounds are non site-related. These same compounds were also shown to be multiple exceedances in the groundwater from downgradient well MW-19D, indicating these compounds are being transported in deeper groundwater across the site. Appendix A-2 contains the historical summary data for each monitoring well.

Figure 4-5 presents these VOCs in a cross-sectional view and shows data for wells screened in the Upper Glacial Aquifer and in the deeper Magothy Aquifer for the April 2003, June 2004, June 2005, and July 2006 sampling events and for the baseline values from before the system was activated in June 2000. It is apparent from this cross-section that the PCE and TCE detected in the groundwater in the Magothy Aquifer are being transported within the Magothy Aquifer under the site and that these compounds originate from a source upgradient of the subject property.

Multiple exceedances of 1,2-DCE were observed in the groundwater from downgradient well MW-19D. 1,2-DCE is a daughter-product of natural biodegradation of PCE and TCE (both of which were observed as exceedances in the groundwater from upgradient well MW-1D); therefore, 1,2-DCE is not considered a site-related compound.

1,1-DCA was detected as multiple exceedances in the groundwater from MW-7D. 1,1-DCA is a daughter-product of natural biodegradation of 1,1,1-TCA, which was observed as an exceedance in groundwater from upgradient well MW-1D; therefore, 1,1-DCA is not considered a site-related compound.

Methylene chloride is believed not to be representative of groundwater contamination due to its widespread detection in method blank samples, and therefore, these data were not evaluated in this report.

4.4 GEOCHEMICAL TIME-SERIES GRAPHS

Trends in groundwater quality over time are apparent in geochemical time-series graphs prepared for each monitoring well. Time-series graphs were prepared by plotting concentration levels versus time for select compounds detected in the groundwater samples collected during the period extending from June 2000 through July 2006. Time-series graphs and the associated data are presented in Appendix B.

In general, the time-series graphs show the following:

- The VOCs detected in the groundwater from the shallow wells show either slight decrease or no change over the Performance Monitoring Period up through June 2005 with a significant decrease after June 2005. The only exception to this trend is the concentration of 1,1,1-TCA exhibited in the groundwater from well MW-4S, which exhibits a slight increase after June 2005; and
- The VOCs detected in groundwater from the deep wells show either slight increase or no change over the Performance Monitoring Period. The only notable change from the previous years is an increase in the concentrations of 1,1-DCE and 1,1,1-TCA detected in groundwater from well MW-19D.

The difference in trends observed in VOCs levels between the shallow and the deep groundwater could be due to the remediation system treating groundwater from the shallow zone, while leaving the deeper zone unaffected.

Trends over time in the levels of compounds observed as exceedances in the groundwater from downgradient shallow well MW-19S are useful to evaluate the effectiveness of the remediation system. The only VOC compound observed as an exceedance in the groundwater from MW-19S and not observed as an exceedance in the groundwater from MW-1S is 1,1-DCA.

The time-series graph shows that the levels of 1,1-DCA decreased over the Performance Monitoring Period, indicating the remediation system is effective in mitigating the VOC compound.

SECTION FOUR

Groundwater Quality

Table 4-1. Site-Related and Non Site-Related Compounds, Circuitron Corporation Superfund Site
(Page 1 of 4)

Media	Location	Compound	Number of Exceedance Occurrences ⁽²⁾	Site-Related	Rationale ⁽¹⁾
Shallow Groundwater	MW-1S (Upgradient well)	1,1 Dichloroethene	1	No	These four compounds were not observed as exceedances prior to remediation system startup.
		1,1,1 Trichloroethane	1	No	
		Tetrachloroethene	1	No	
		Trichloroethene	1	No	
		Methylene chloride	1	No	Method blank artifact
	Iron			No	Baseline exceedance in MW-1S
				No	Baseline exceedance in MW-1S
	Manganese		6		
	MW-3S	1,1,1 Trichloroethane	2	Yes	
	MW-4S	Iron	6	No	Baseline exceedance in MW-1S
		1,1 Dichloroethane	4	Yes	
		1,1 Dichloroethene	2	Yes	
		1,1,1 Trichloroethane	12	Yes	
		Tetrachloroethene	10	Yes	
		Methylene chloride	3	No	Method blank artifact
		Chromium	5	Yes	
		Iron	5	No	Baseline exceedance in MW-1S
		1,1 Dichloroethene	1	Yes	
		1,1,1 Trichloroethane	10	Yes	
	Methylene chloride	Methylene chloride	2	No	
		Antimony	1	No	Single exceedance
		Chromium	3	Yes	
	Iron	Iron	3	No	Baseline exceedance in MW-1S
		Methylene chloride	1	No	Method blank artifact
		Chromium	2	Yes	
	MW-7S	Iron	3	No	Baseline exceedance in MW-1S
		Methylene chloride	1	No	
		Chromium	2	Yes	
		Iron	3	No	
		Manganese	1	No	
	MW-13	1,1 Dichloroethane	5	Yes	
		1,1 Dichloroethene	2	Yes	
		1,1,1 Trichloroethane	11	Yes	
		Methylene chloride	2	No	Method blank artifact
		Iron	*6	No	Baseline exceedance in MW-1S
	Manganese	Manganese	1	No	Baseline exceedance in MW-1S

SECTION FOUR

Groundwater Quality

Table 4-1. Site-Related and Non Site-Related Compounds, Circuitron Corporation Superfund Site
 (Page 2 of 4)

Media	Location	Compound	Number of Exceedance Occurrences ⁽²⁾	Site-Related	Rationale ⁽¹⁾
Shallow Groundwater (Continued)	MW-14	1,1,1 Trichloroethane Methylene chloride	6 1	Yes No	Method blank artifact
	Iron		6	No	Baseline exceedance in MW-1S
	Manganese		3	No	Baseline exceedance in MW-1S
MW-15	1,2 Dichloroethene (total) Tetrachloroethylene Trichloroethylene		3 2 1	Yes Yes Yes	
	Iron		6	No	Baseline exceedance in MW-1S
	Manganese		5	No	Baseline exceedance in MW-1S
MW-16	Arsenic Iron Lead		1 6 1	No No No	Single exceedance Baseline exceedance in MW-1S Single exceedance
	Manganese		5	No	Baseline exceedance in MW-1S
MW-17	1,1 Dichloroethane 1,1,1 Trichloroethane 1,1,2 Trichloroethane Methylene chloride		1 7 2 1	Yes Yes Yes No	
	Chromium		1	No	Method blank artifact
	Iron		6	No	Single exceedance
	Lead		1	No	Baseline exceedance in MW-1S
	Manganese		2	No	Single exceedance
MW-18	Methylene chloride		2	No	Method blank artifact
	Chromium		1	No	Single exceedance
	Iron		6	No	Baseline exceedance in MW-1S
MW-19S	1,1 Dichloroethane 1,1,1 Trichloroethane Methylene chloride		1 2 4	Yes Yes No	
	Chromium		2	Yes	Method blank artifact
	Iron		6	No	Baseline exceedance in MW-1S
	Lead		1	No	Single exceedance
	Manganese		6	No	Baseline exceedance in MW-1S
	Mercury		1	No	Single exceedance

SECTION FOUR

Groundwater Quality

Table 4-1. Site-Related and Non Site-Related Compounds, Circuitron Corporation Superfund Site
(Page 3 of 4)

Media	Location	Compound	Number of Exceedance Occurrences ⁽²⁾	Site-Related	Rationale ⁽¹⁾
Deep Groundwater	MW-1D (Upgradient well)	1,1 Dichloroethene 1,1,1 Trichloroethane Tetrachloroethene Trichloroethene Methylene chloride	1 1 *5 7 2	No No No No No	Upgradient well
		Chromium Iron Lead	5 8 1	No No No	
MW-3D		Methylene chloride Chromium Iron	1 3 4	No No No	Method blank artifact Baseline exceedance in MW-1D Baseline exceedance in MW-1D
		Manganese	1	No	Not site-related in shallow aquifer
MW-4D		1,1 Dichloroethane 1,1 Dichloroethene 1,1,1 Trichloroethane Tetrachloroethene Trichloroethene Methylene chloride	1 10 11 2 8 2	No No No No No No	Biodegradation product of 1,1,1-TCA Baseline exceedance in MW-1D Baseline exceedance in MW-1D Baseline exceedance in MW-1D Baseline exceedance in MW-1D Method blank artifact
		Iron	6	No	Baseline exceedance in MW-1D
MW-5D		Methylene chloride Iron Manganese	2 4 6	No No No	Method blank artifact Baseline exceedance in MW-1D Not site-related in shallow aquifer
MW-6D		1,1 Dichloroethene 1,1,1 Trichloroethane Trichloroethene Methylene chloride Chromium Iron Nickel	4 8 8 2 5 5 5	No No No No No No No	Baseline exceedance in MW-1D Baseline exceedance in MW-1D Baseline exceedance in MW-1D Method blank artifact Baseline exceedance in MW-1D Baseline exceedance in MW-1D Not site-related in shallow aquifer

SECTION FOUR

Groundwater Quality

Table 4-1. Site-Related and Non Site-Related Compounds, Circuitron Corporation Superfund Site
 (Page 4 of 4)

Media	Location	Compound	Number of Exceedance Occurrences ⁽²⁾	Site-Related	Rationale ⁽¹⁾
Deep Groundwater (Continued)	MW-7D	1,1 Dichloroethane 1,1 Dichloroethene 1,1,1 Trichloroethane Trichloroethene Methylene chloride	6 1 2 1 2	No No No No No	Biodegradation product of 1,1,1-TCA Baseline exceedance in MW-1D Baseline exceedance in MW-1D Baseline exceedance in MW-1D Method blank artifact
	Iron		*3	No	Baseline exceedance in MW-1D
MW-19D		1,1 Dichloroethene 1,1,1 Trichloroethane 1,2 Dichloroethene (total) Tetrachloroethene Trichloroethene Chloroform Methylene chloride	13 13 11 13 13 6 4	No No No No No No No	Baseline exceedance in MW-1D Baseline exceedance in MW-1D Biodegradation product of PCE and TCE Baseline exceedance in MW-1D Baseline exceedance in MW-1D Biodegradation product of 1,1,1-TCA Method blank artifact
	Chromium		3	No	Baseline exceedance in MW-1D
	Iron		6	No	Baseline exceedance in MW-1D
	Lead		4	No	Baseline exceedance in MW-1D
	Manganese		5	No	Not site-related in shallow aquifer
	Nickel		1	No	Single exceedance

Notes: Data considered in this table includes volatile organics through July 2006 and inorganics through April 2003. With concurrence from the USEPA, metals analysis was discontinued prior to the June 2004 sampling event.

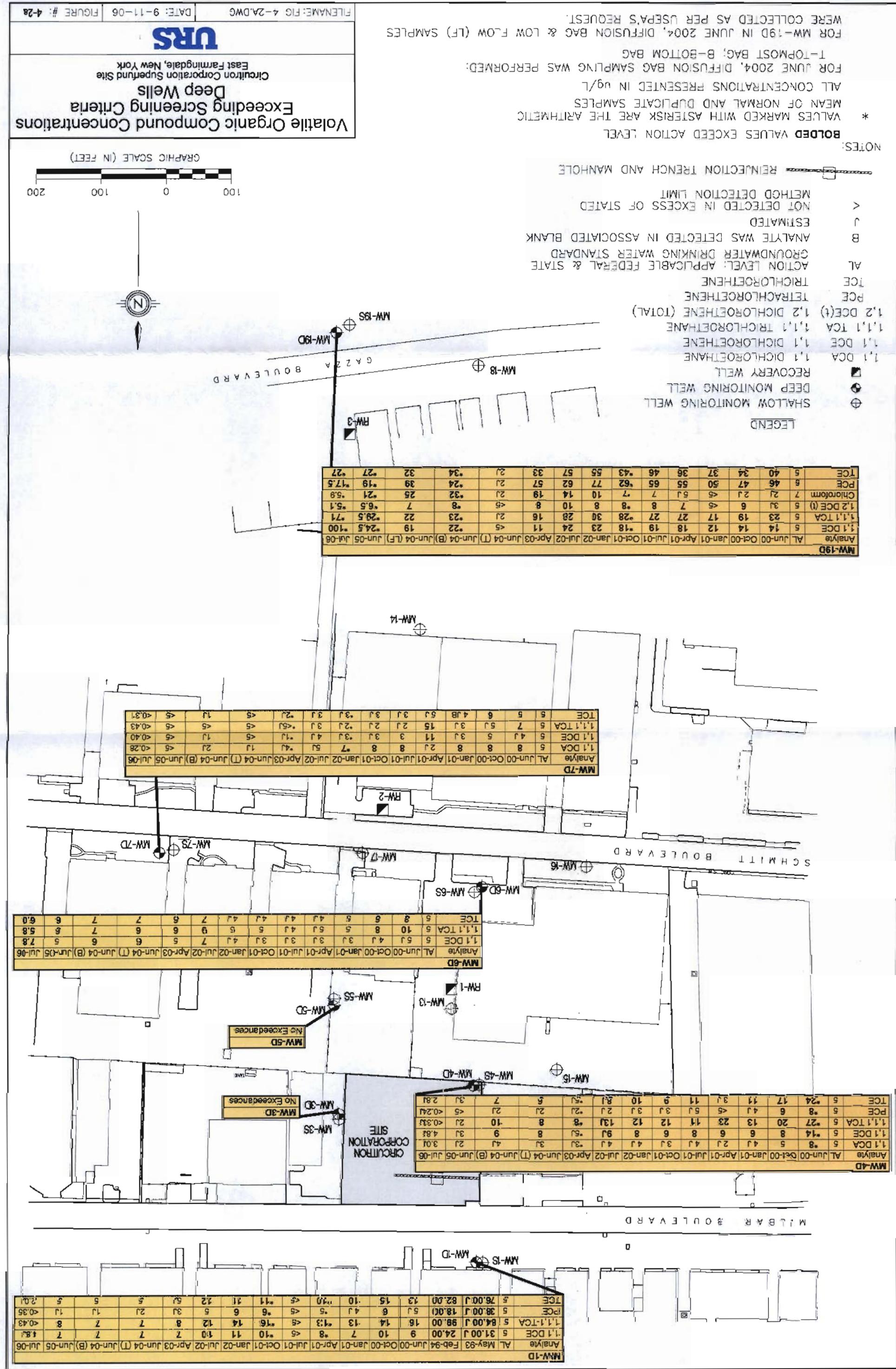
(1) Rationale:

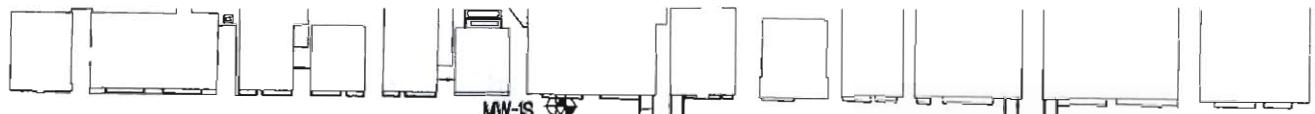
Method blank artifact: The compound was detected in several method blanks and will not be considered site-related.
 Baseline exceedance in MW-1S: The compound was observed to exceed action levels prior to remediation system startup in groundwater samples collected from the upgradient well and will not be considered site-related.

Single exceedance: The compound was observed as an exceedance in groundwater collected from a site well during only one sampling event and will not be considered site related.
 Upgradient well: If a compound is observed exceeding action levels in this well, the compound will not be considered site-related in any downgradient well.
 Baseline exceedance in MW-1D: The compound was observed to exceed action levels prior to remediation system startup in groundwater samples collected from the upgradient well and will not be considered site-related.

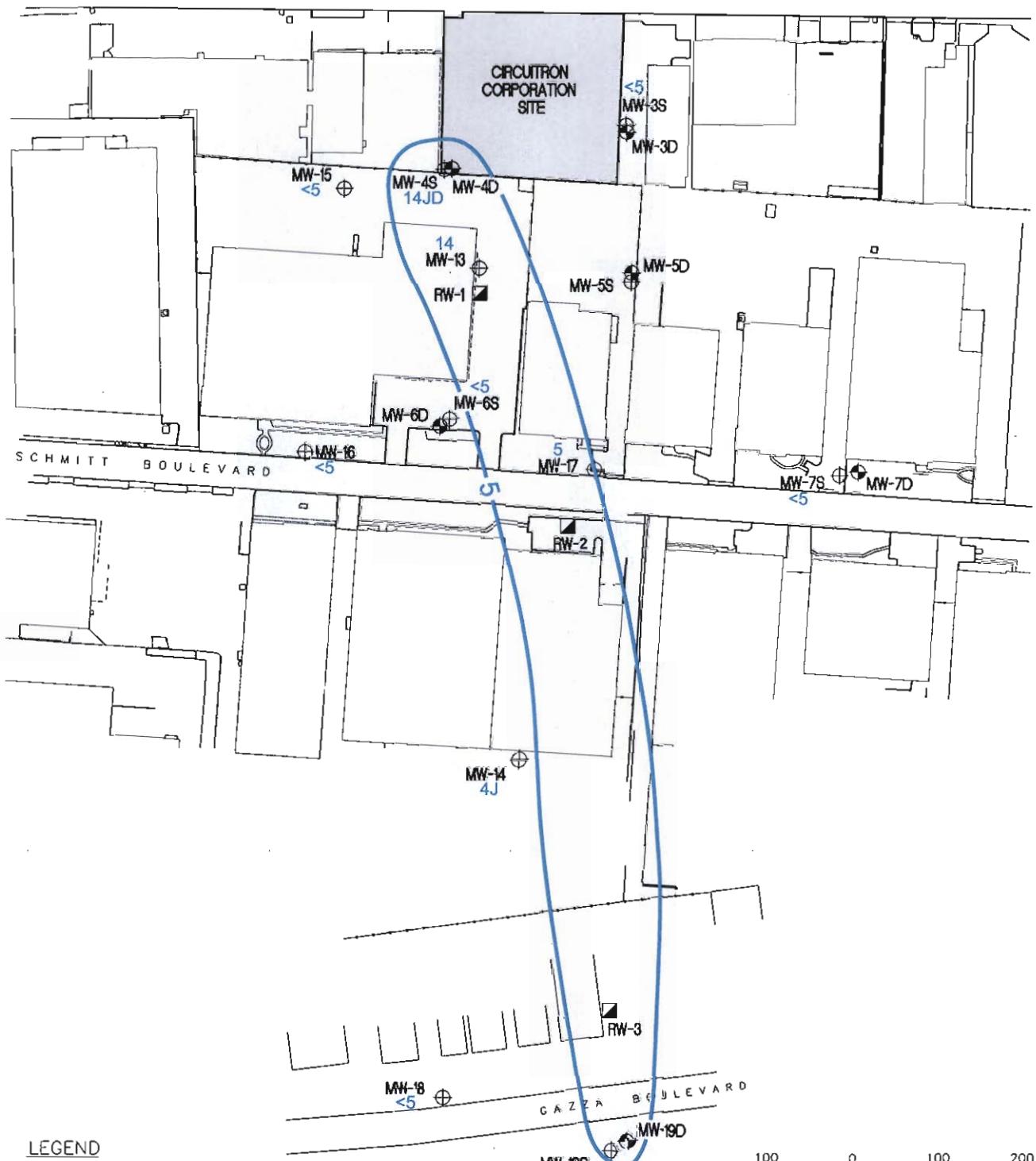
Not site-related in shallow aquifer: If a compound is determined to be non site-related in the shallow groundwater, it will not be considered site-related in deeper groundwater.
 Biodegradation product: The compound is a biodegradation product of a compound that has been determined non site-related.

(2) Values that appear with an asterisk indicate that a duplicate sample showed a detection of the compound exceeding the action level, but analysis of the normal sample showed either a detection less than the action level or was not detected in excess of the detection limit. The number includes the duplicate exceedance.





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LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊖ DEEP MONITORING WELL
- RECOVERY WELL
- 4 1,1 DICHLOROETHANE (1,1 DCA)
CONCENTRATION VALUE (ug/L)
- 1,1 DCA CONCENTRATION CONTOUR LINE

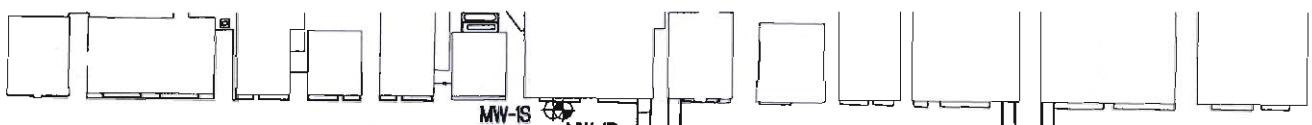
QUALIFIERS:

- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

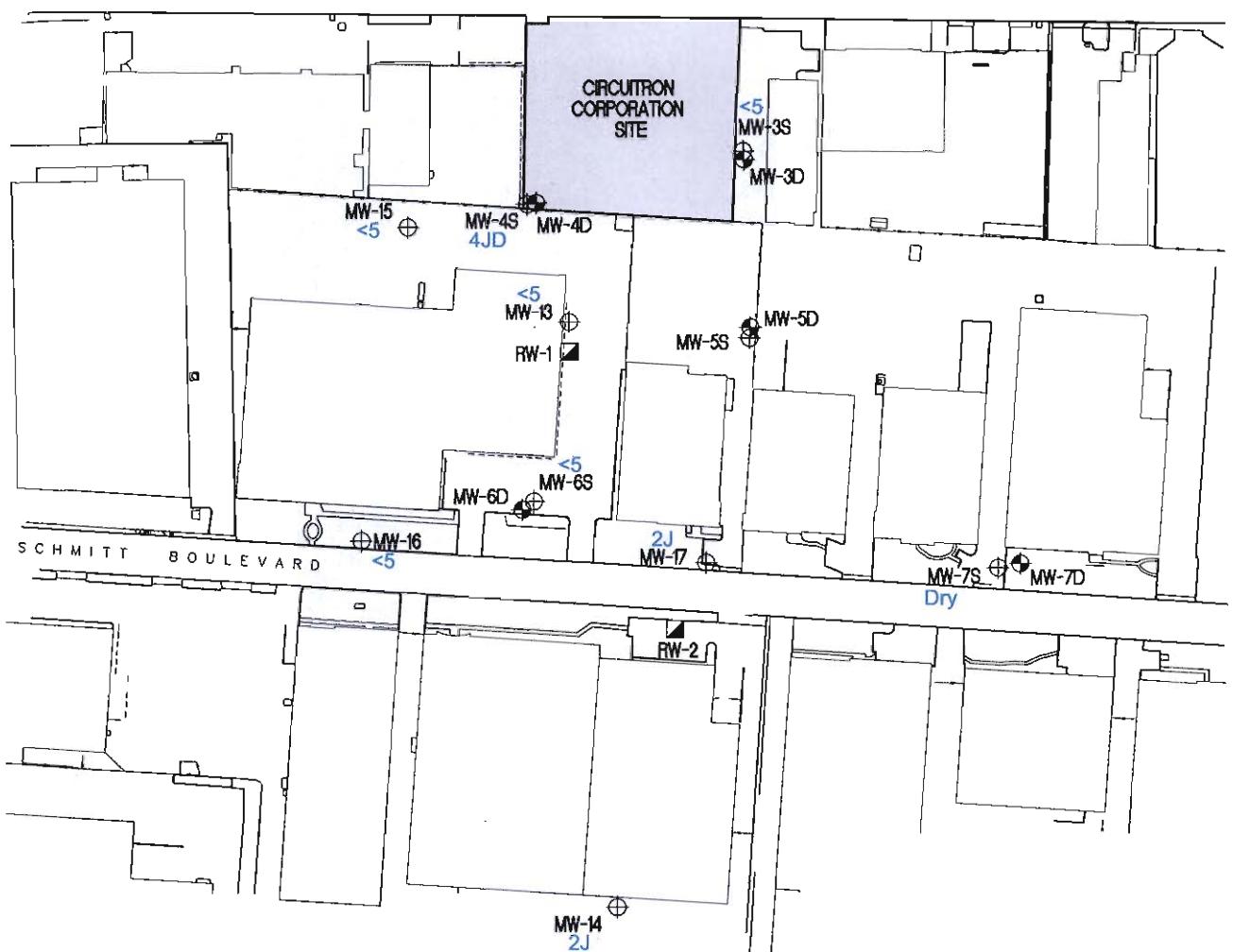
100 0 100 200
GRAPHIC SCALE (IN FEET)

1,1 DCA June 2000
Isoconcentration Map (ug/L)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

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MILBAR BOULEVARD

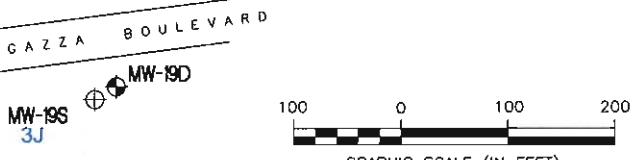


LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊛ DEEP MONITORING WELL
- RECOVERY WELL
- <5 1,1 DICHLOROETHANE (1,1 DCA) CONCENTRATION VALUE (ug/L)

QUALIFIERS:

- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

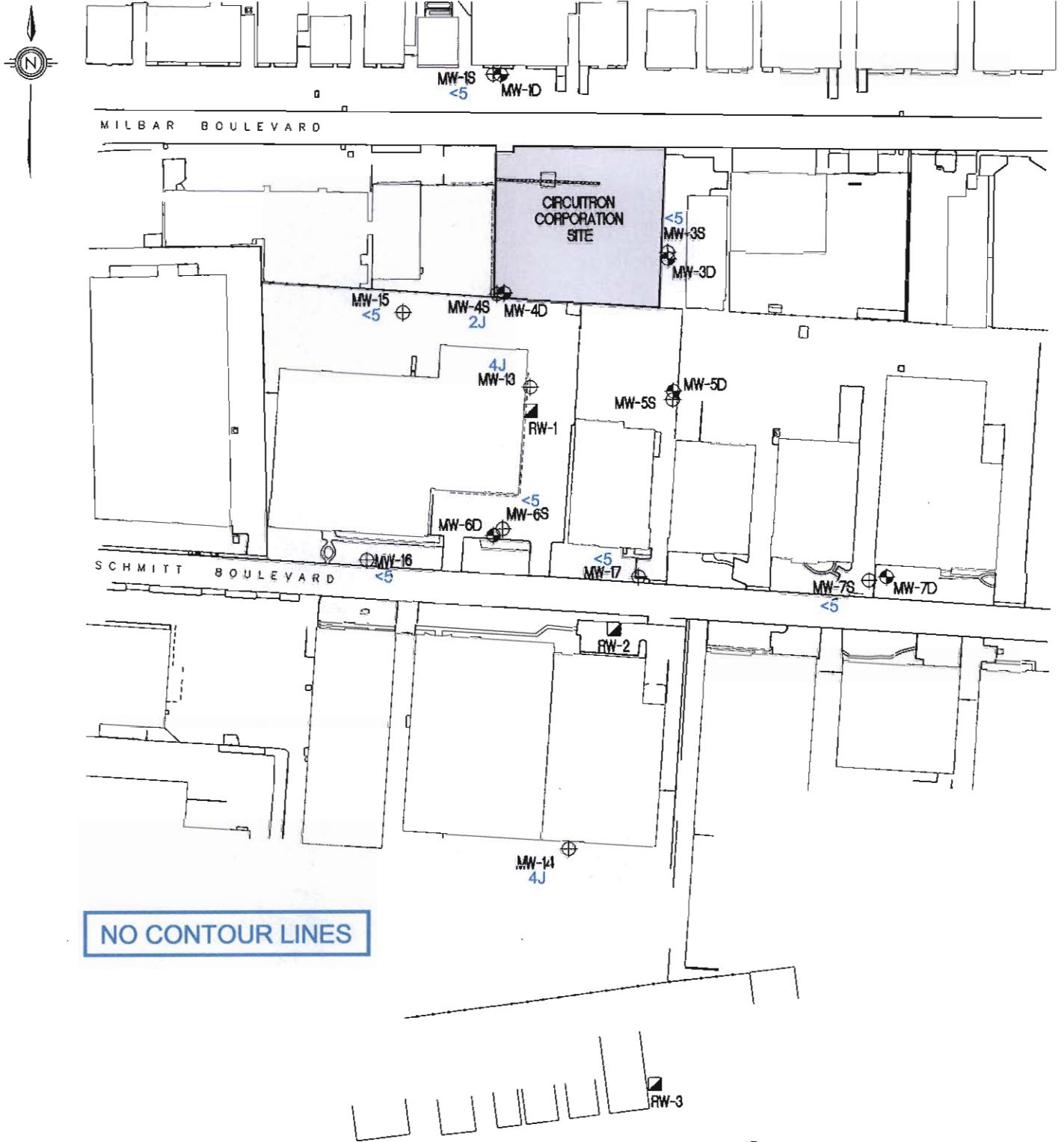


1,1 DCA February 2002

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



1,1 DCA April 2003
Isoconcentration Map (ug/L)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

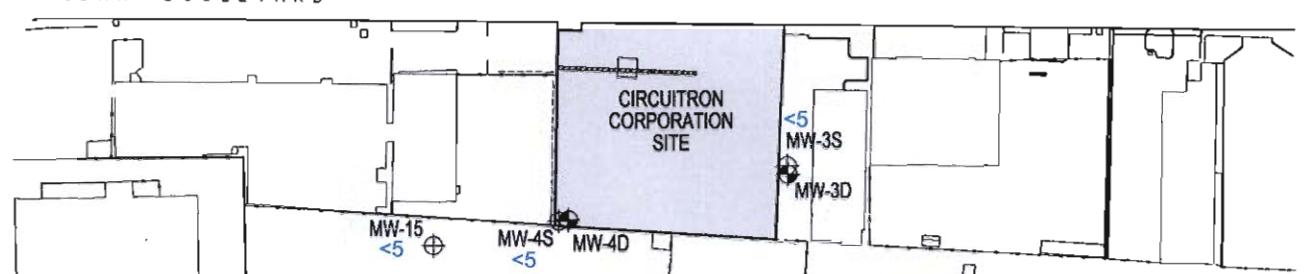
URS

QUALIFIERS:

- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

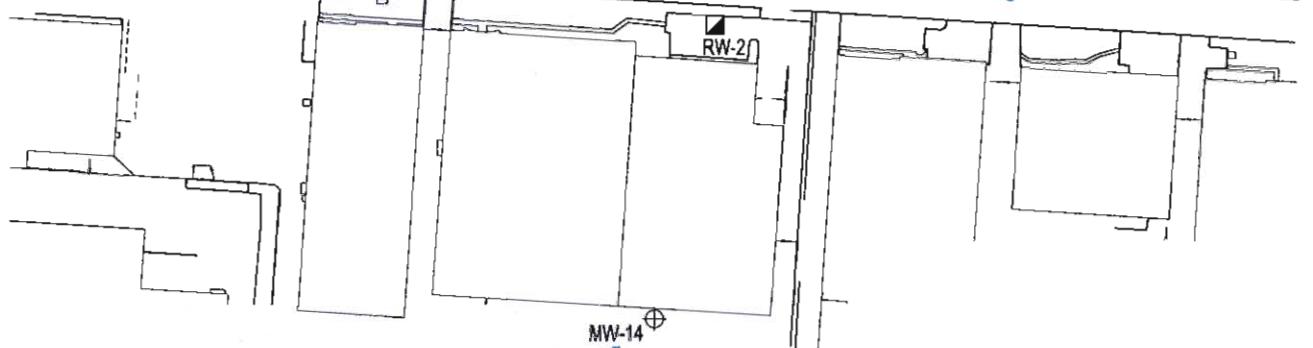


MILBAR BOULEVARD



CIRCUITRON
CORPORATION
SITE

SCHMITT BOULEVARD



NO CONTOUR LINES

MW-14
<5

LEGEND

⊕ SHALLOW MONITORING WELL

◆ DEEP MONITORING WELL

■ RECOVERY WELL

— REINJECTION TRENCH
AND MANHOLE

4 1,1 DICHLOROETHANE (1,1 DCA)
CONCENTRATION VALUE (ug/L)

— 1,1 DCA CONCENTRATION CONTOUR LINE

MW-18
<5
GAZZA BOULEVARD
MW-19S
<5
MW-19D

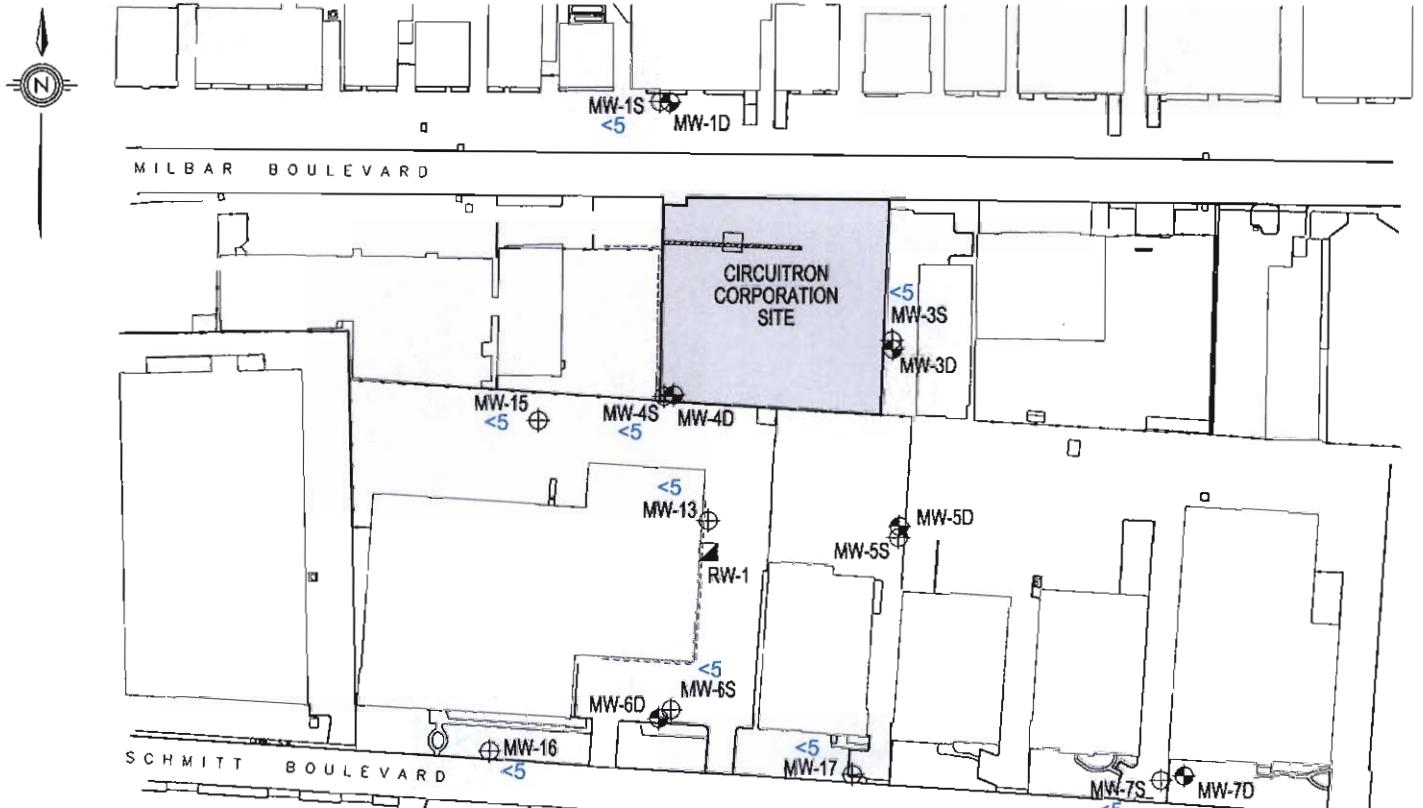
100 0 100 200

GRAPHIC SCALE (IN FEET)

1,1 DCA June 2004
Isoconcentration Map (ug/L)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



NO CONTOUR LINES

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊛ DEEP MONITORING WELL
- RECOVERY WELL
- REINJECTION TRENCH AND MANHOLE
- 4 1,1 DICHLOROETHANE (1,1 DCA) CONCENTRATION VALUE ($\mu\text{g/L}$)
- 1,1 DCA CONCENTRATION CONTOUR LINE

GAZZA BOULEVARD

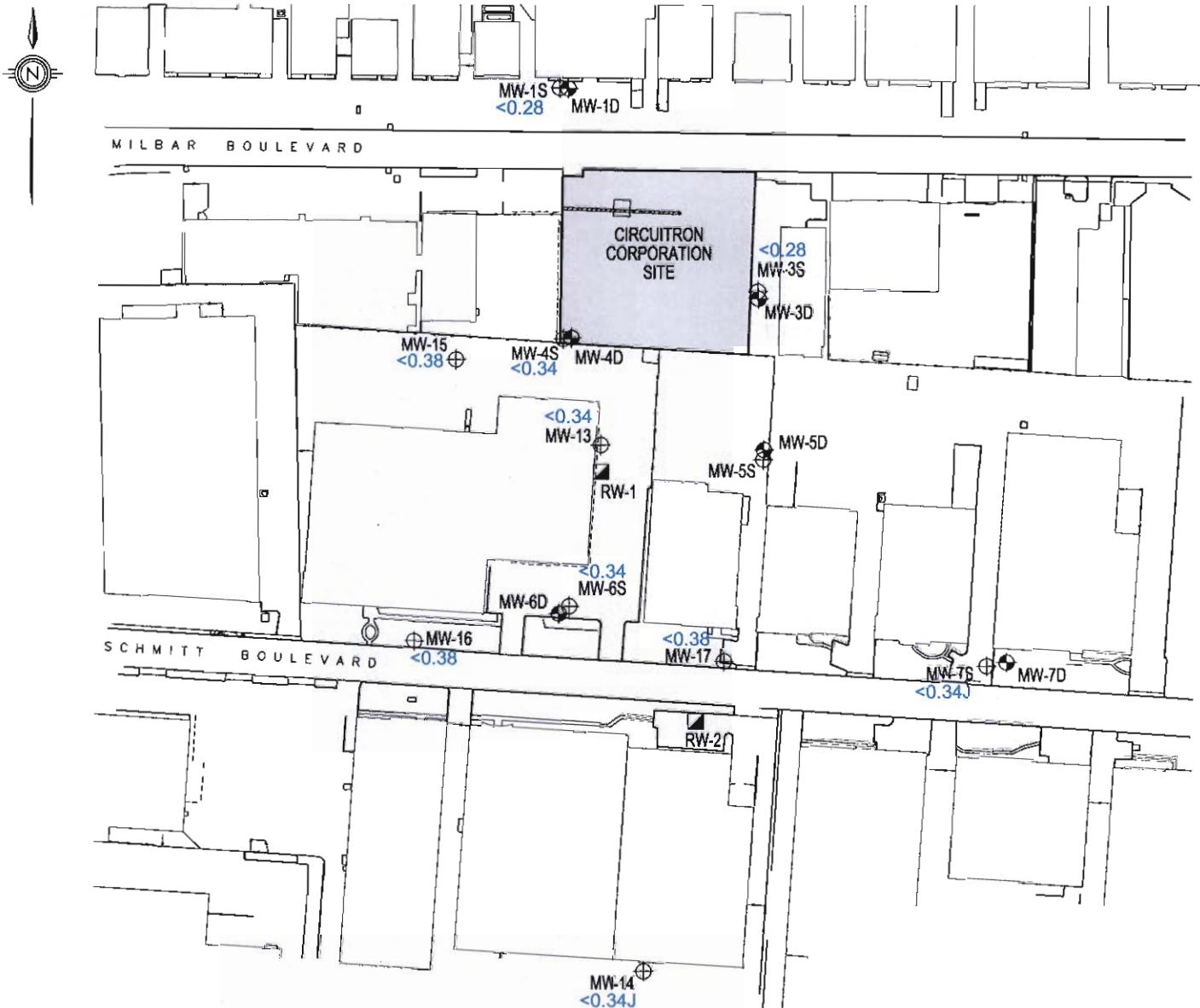
MW-19S ⊛ MW-19D
<5

100 0 100 200
GRAPHIC SCALE (IN FEET)

1,1 DCA June 2005
Isoconcentration Map ($\mu\text{g/L}$)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



NO CONTOUR LINES

LEGEND

⊕ SHALLOW MONITORING WELL

◆ DEEP MONITORING WELL

■ RECOVERY WELL

— REINJECTION TRENCH AND MANHOLE

4 1,1 DICHLOROETHANE (1,1 DCA)
CONCENTRATION VALUE (ug/L)

— 1,1 DCA CONCENTRATION CONTOUR LINE

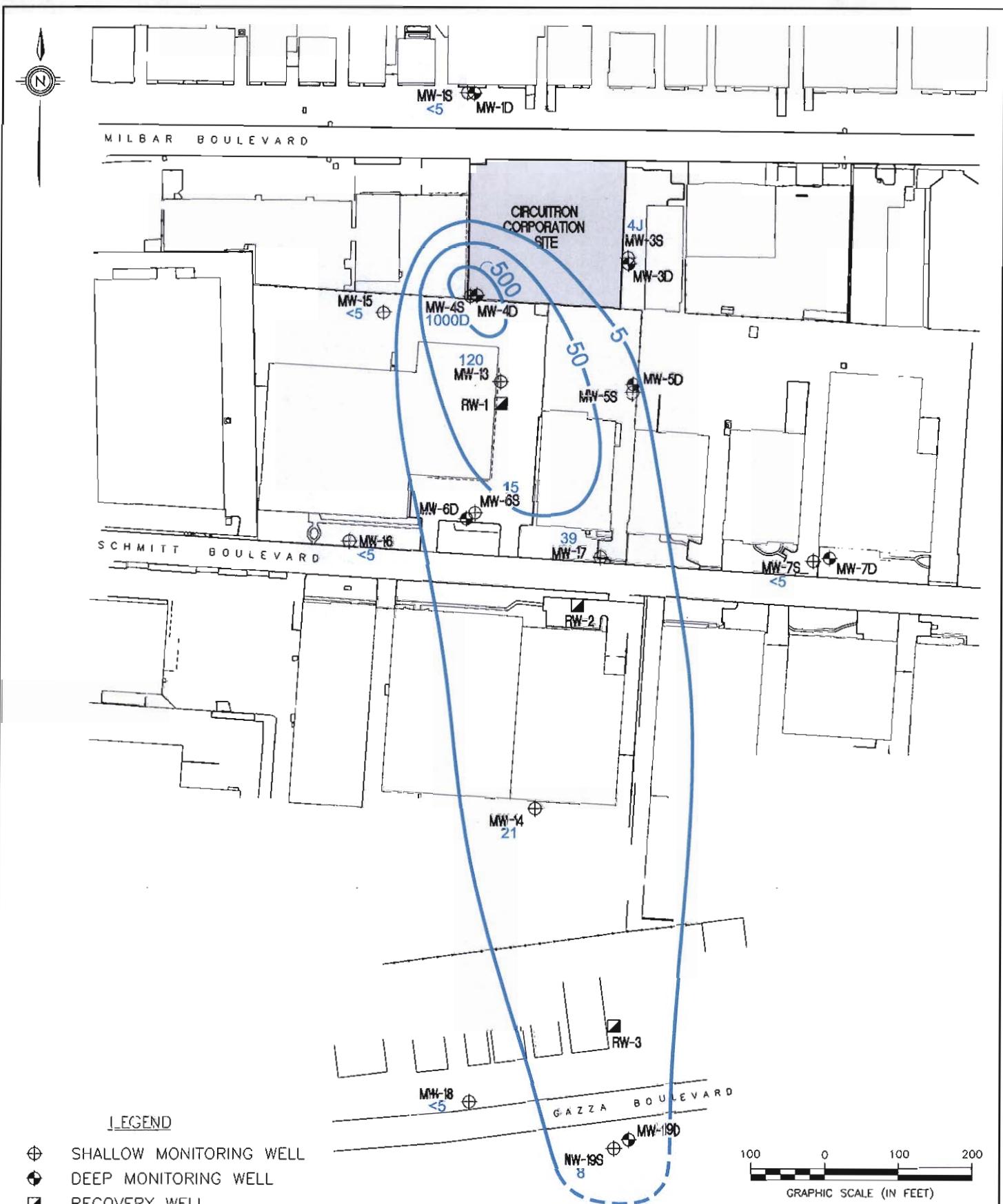
QUALIFIERS:

J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

100 0 100 200
GRAPHIC SCALE (IN FEET)

1,1 DCA July 2006
Isoconcentration Map (ug/L)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



LEGEND

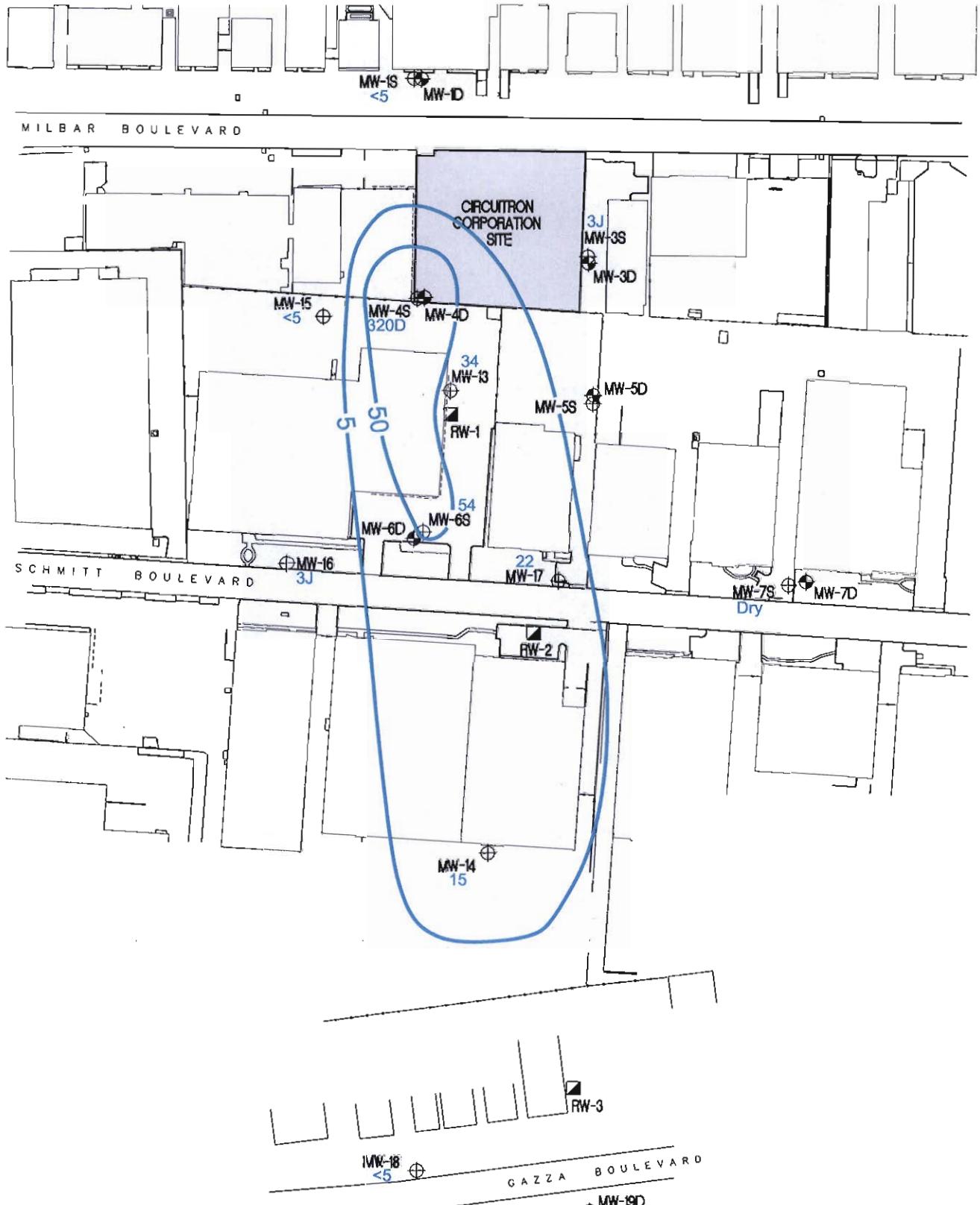
- ⊕ SHALLOW MONITORING WELL
- ◆ DEEP MONITORING WELL
- RECOVERY WELL
- 8 1,1,1 TRICHLOROETHANE (1,1,1 TCA)
CONCENTRATION VALUE ($\mu\text{g/L}$)
- 1,1,1 TCA CONCENTRATION CONTOUR LINE
(DASHED WHERE INFERRED)

QUALIFIERS:

- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

100 0 100 200
GRAPHIC SCALE (IN FEET)





LEGEND

- ⊕ SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY WELL
- 15 1,1,1 TRICHLOROETHANE (1,1,1 TCA)
CONCENTRATION VALUE (ug/L)
- 1,1,1 TCA CONCENTRATION CONTOUR LINE

QUALIFIERS:

- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

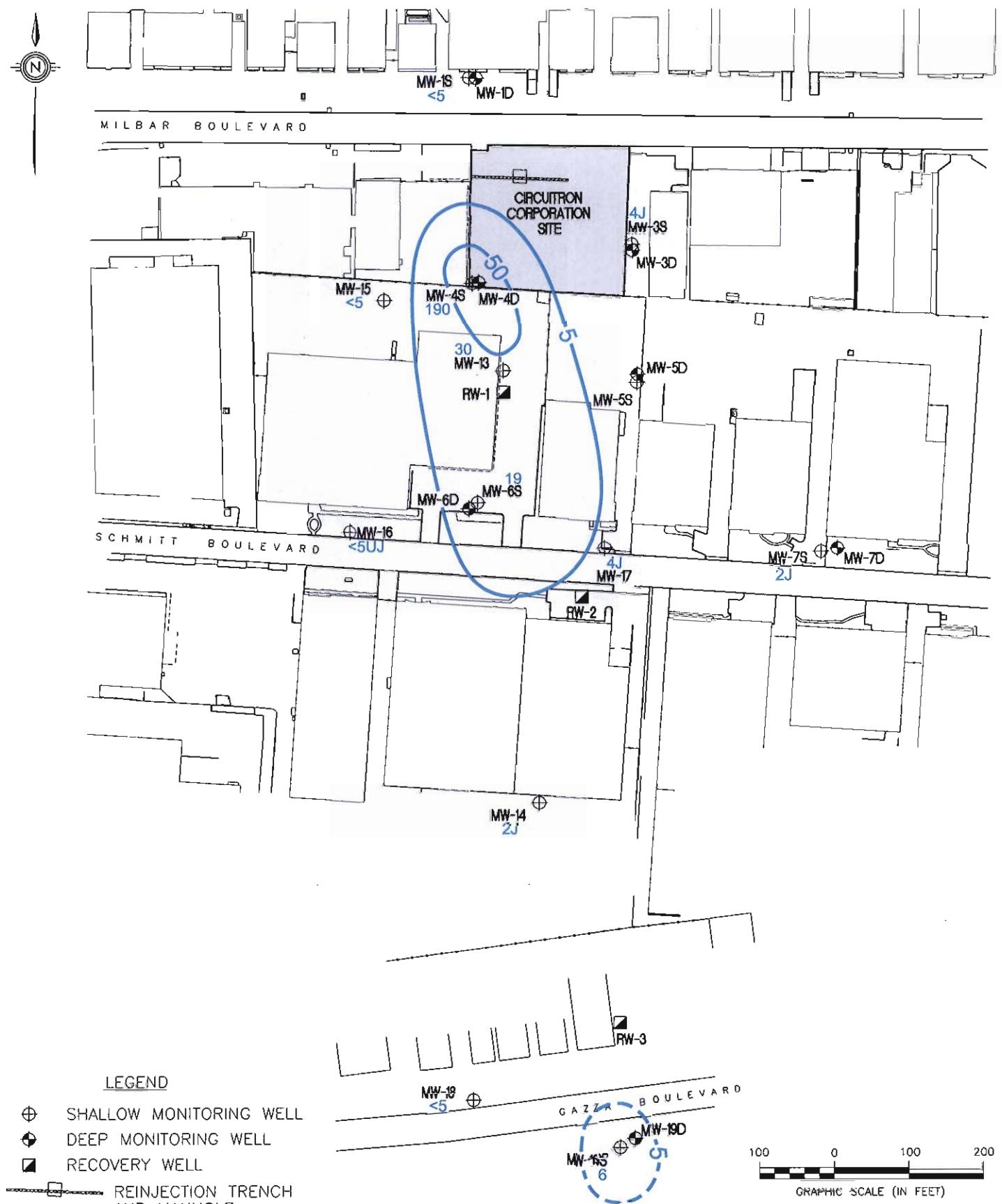
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GRAPHIC SCALE (IN FEET)

1,1,1 TCA JANUARY-FEBRUARY 2002

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



LEGEND

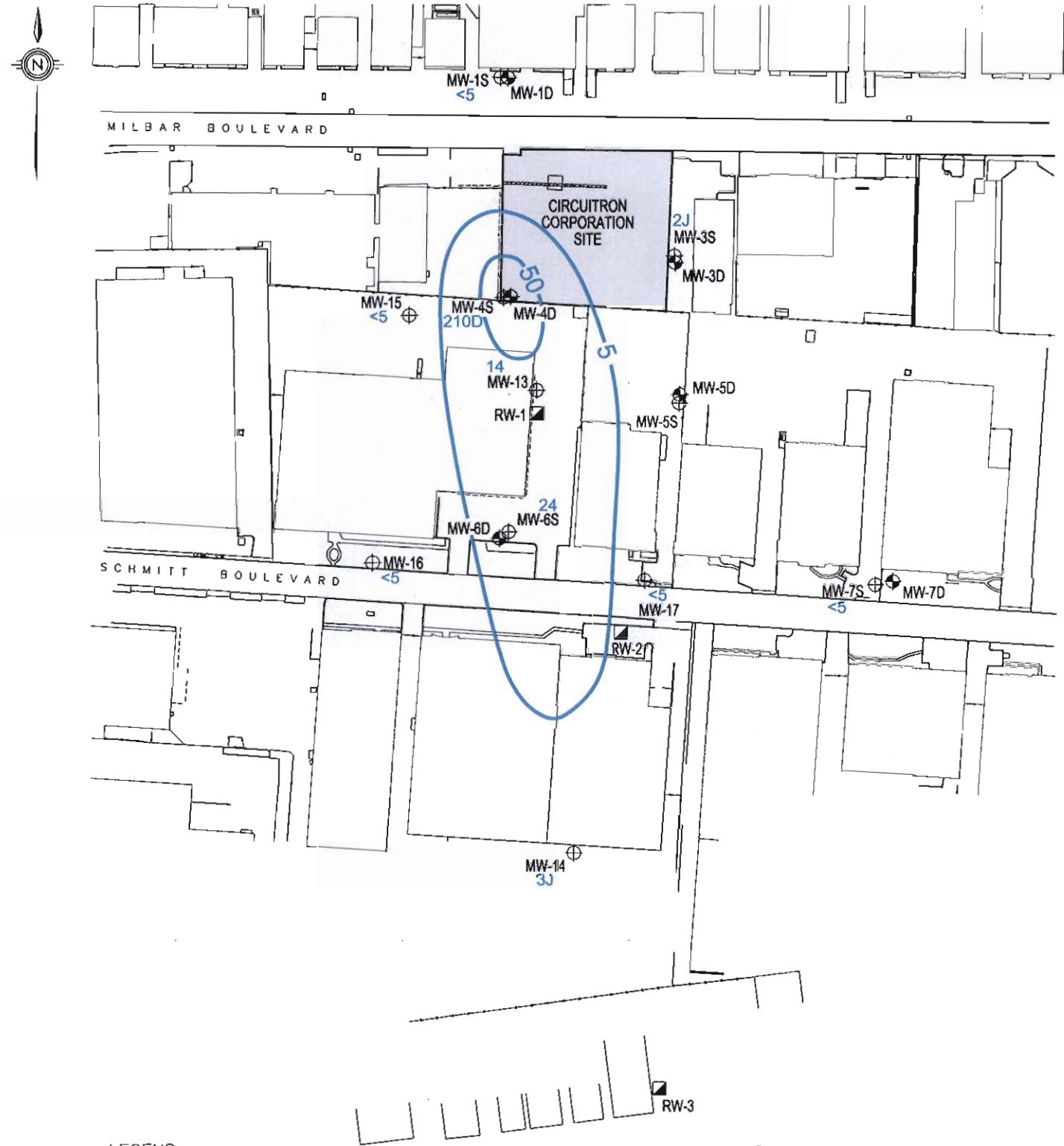
- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- RECOVERY WELL
- REINJECTION TRENCH AND MANHOLE
- 8 1,1,1 TRICHLOROETHANE (1,1,1 TCA) CONCENTRATION VALUE ($\mu\text{g/L}$)
- 1,1,1 TCA CONCENTRATION CONTOUR LINE (DASHED WHERE INFERRED)

QUALIFIERS:

- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

1,1,1 TCA April 2003
Isoconcentration Map ($\mu\text{g/L}$)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



LEGEND

- ⊕ SHALLOW MONITORING WELL
- ◆ DEEP MONITORING WELL
- RECOVERY WELL
- REINJECTION TRENCH AND MANHOLE

8 1,1,1 TRICHLOROETHANE (1,1,1 TCA)
CONCENTRATION VALUE (ug/L)

— 1,1,1 TCA CONCENTRATION CONTOUR LINE
(DASHED WHERE INFERRED)

QUALIFIERS:

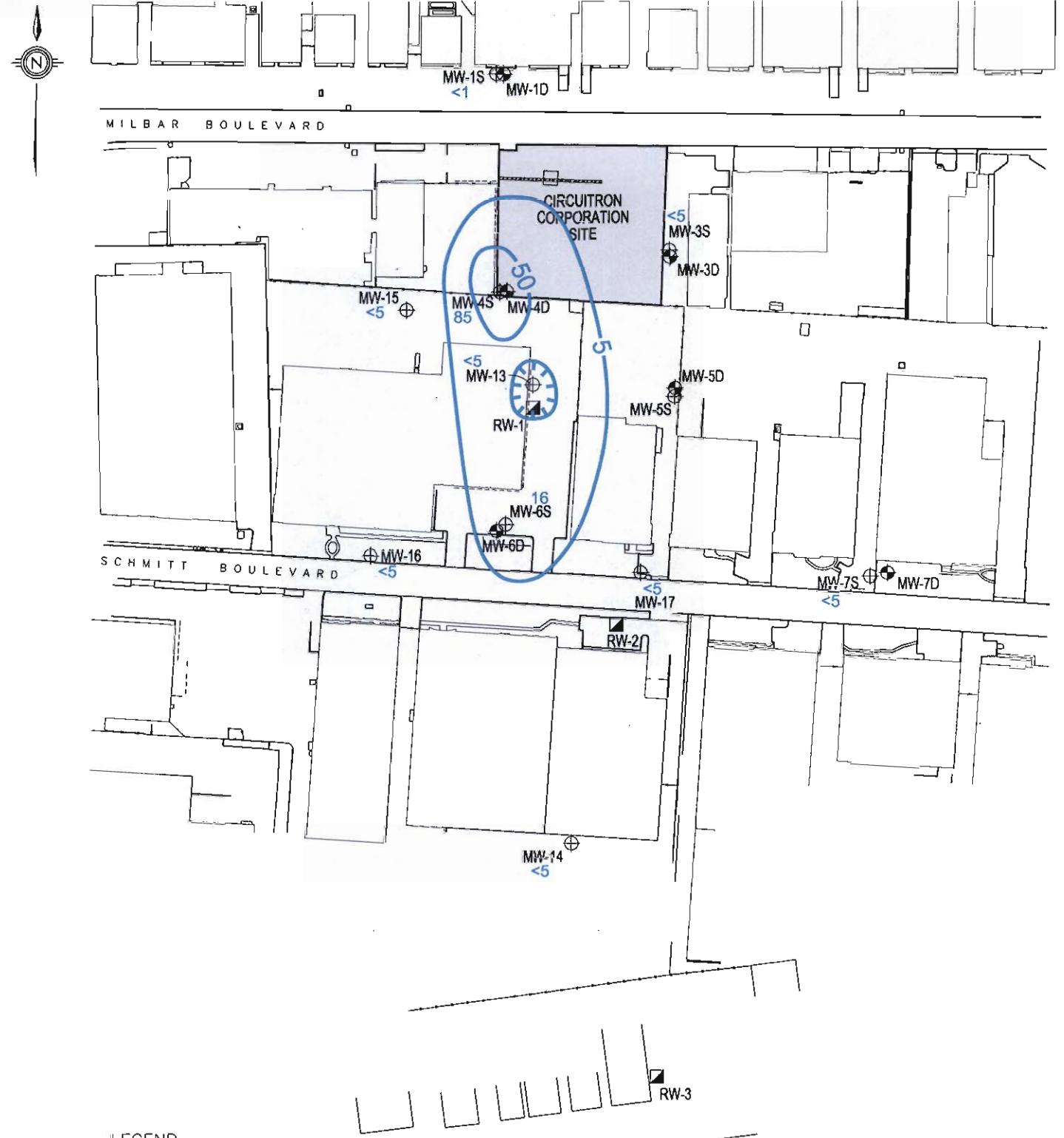
- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

1,1,1 TCA June 2004

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



LEGEND

- ⊕ SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY WELL
- REINJECTION TRENCH AND MANHOLE
- 8 1,1,1 TRICHLOROETHANE (1,1,1 TCA)
CONCENTRATION VALUE ($\mu\text{g}/\text{L}$)
- 1,1,1 TCA CONCENTRATION CONTOUR LINE
(DASHED WHERE INFERRED)

QUALIFIERS:

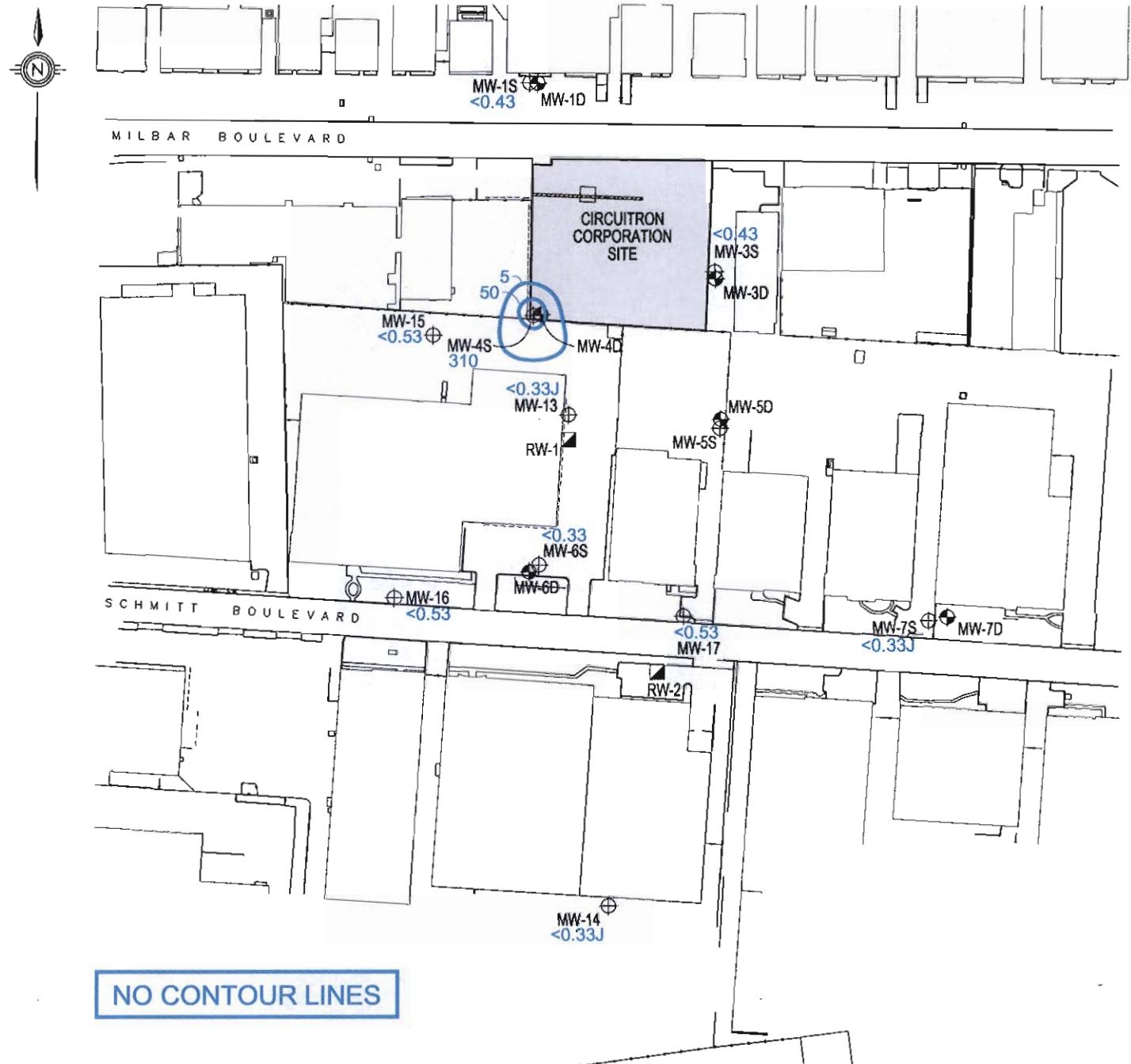
- D RESULTS ARE REPORTED FOR THE DILUTED SAMPLES
- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

1,1,1 TCA June 2005

Isoconcentration Map ($\mu\text{g}/\text{L}$)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



LEGEND

- ⊕ SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY WELL

— REINJECTION TRENCH AND MANHOLE

8 1,1,1 TRICHLOROETHANE (1,1,1 TCA)
CONCENTRATION VALUE (ug/L)

— 1,1,1 TCA CONCENTRATION CONTOUR LINE
(DASHED WHERE INFERRED)

QUALIFIERS:

J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

MW-18 <0.53 ⊕

GAZZA BOULEVARD

MW-19D

MW-19S <0.43 ⊕

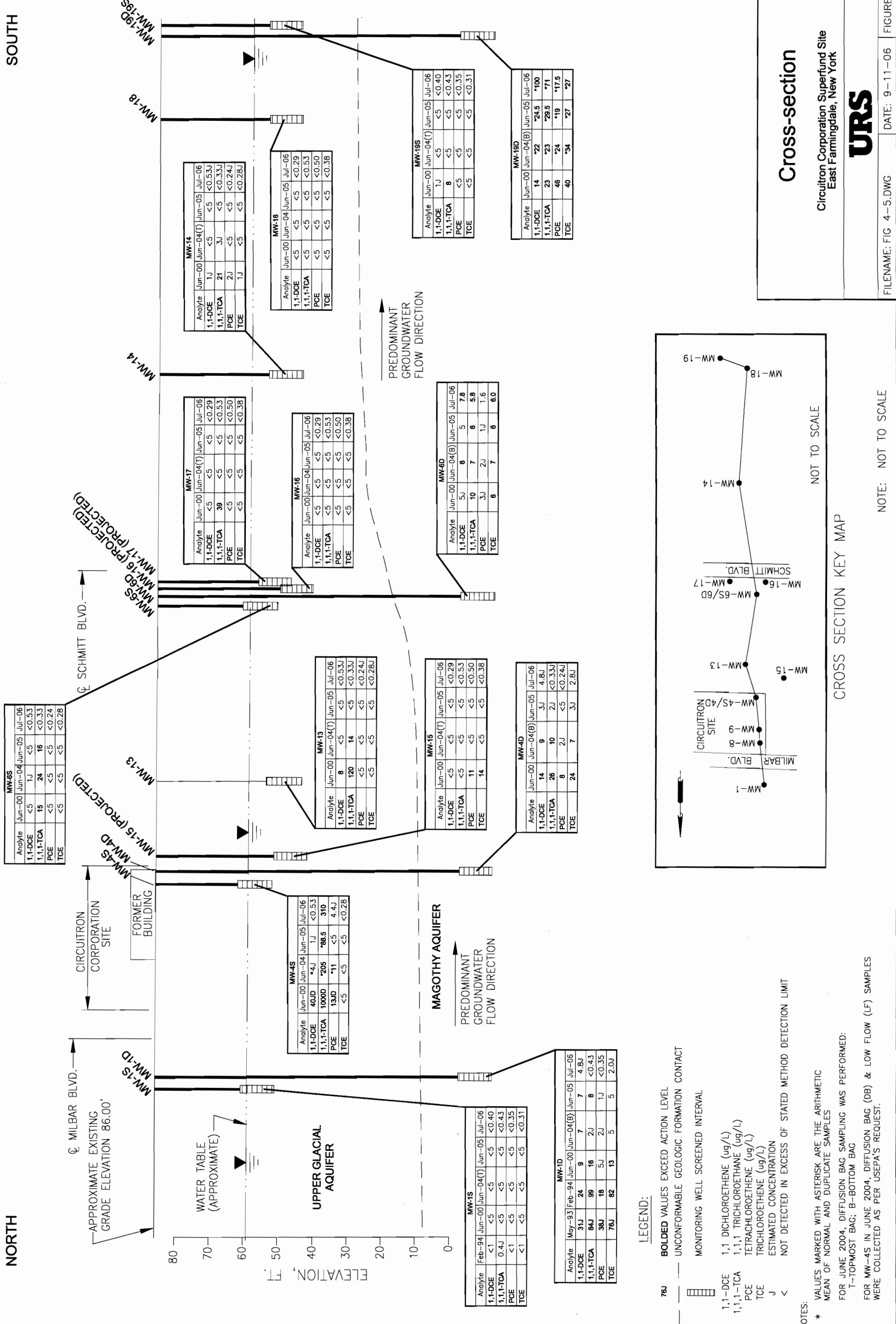
100 0 100 200
GRAPHIC SCALE (IN FEET)

1,1,1 TCA July 2006

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS



1

5.0 SUMMARY AND CONCLUSIONS

This section presents a summary of the findings and conclusions for this Annual Performance Evaluation.

5.1 GROUNDWATER FLOW

The groundwater flow pattern for the upper portion of the Upper Glacial Aquifer has changed as a result of the remediation system operation. Shallow groundwater contamination located within the observed zone of capture is being directed to the remediation system for treatment. The groundwater flow paths from August 2002, March 2004, June 2005, and June 2006 also indicate that the observed zone of capture during that period extends beyond the modeled capture zone to include wells MW-16 and MW-7S.

5.2 GROUNDWATER QUALITY

Monitoring well MW-1S is located upgradient of the site with respect to groundwater flow direction and is the background well for the shallow portion of the Upper Glacial Aquifer for the site. Comparison of the results from each shallow well located downgradient of well MW-1S provides a benchmark to determine if the concentrations detected in the downgradient wells are site-related. A compound is considered site-related if it is observed as an exceedance in the groundwater from a site well and not observed as an exceedance in the groundwater obtained from the upgradient well prior to the remediation system startup (February 1994 and June 2000 sampling events).

Monitoring well MW-1D is located upgradient of the site and is screened within the deep portion of the Upper Glacial Aquifer. Comparison of the results from each deep well located downgradient of well MW-1D provides a benchmark to determine if the concentrations detected in the downgradient deep wells are site-related. A compound is considered site-related if it is observed as an exceedance in the groundwater from a site well and not observed as an exceedance in the groundwater obtained from the upgradient well prior to the remediation system startup (May 1993, February 1994 and June 2000 sampling events). The May 1993 data was also used along with the February 1994 data in this comparison because of the lead that exceeded the action level during that sampling event. A compound will not be considered site-related in the groundwater from the deep aquifer unless it is determined to be site-related in the shallow groundwater.

5.2.1 Shallow Wells - VOCs

VOCs present in the groundwater from the shallow portion of the Upper Glacial Aquifer within this area appear to be captured by the remediation system. Evidence for this is:

- a) The levels of 1,1,1-TCA and 1,1-DCA present in January/February 2002, June 2004, June 2005, and July 2006 are considerably less than the levels present in June 2000.
- b) Both 1,1-DCA and 1,1,1-TCA were observed as an exceedance in the groundwater from downgradient well MW-19S sampled prior to the remediation system start-up (June 2000) and once again in April 2003 at a concentration just above the detection limit for 1,1,1-TCA of 5 µg/L. Other than this single exceedance in April 2003, these compounds were not observed as exceedances in the groundwater sampled from this well during the sampling events after the startup of the remediation system.
- c) As of June 2005, the shallow wells which exhibited levels of VOCs exceeding 5 µg/l are wells MW-4s and -6s and only a single VOC (i.e., 1,1,1-TCA) was found in the groundwater from each well at a level exceeding 5 µg/l.
- d) As of July 2006, the only shallow well which exhibited concentrations of VOCs exceeding 5 µg/l is well MW-4S and only a single VOC (1,1,1-TCA) was found in the groundwater from this well at a concentration exceeding 5 µg/l.
- e) The above indicates the success of the remediation system at capturing VOCs in the shallow aquifer.

5.2.2 Deep Wells - VOCs

Exceedances of 1,1-DCE, 1,1,1-TCA, PCE, and TCE were observed in the groundwater from upgradient well MW-1D, sampled prior to start-up of the remediation system, indicating these compounds are not site-related. These same compounds were also shown to be multiple exceedances in the groundwater from downgradient well MW-19D, indicating these compounds are being transported in the deeper groundwater across the site.

In addition, multiple exceedances of 1,2-DCE were observed in the groundwater from downgradient well MW-19D. The presence of 1,2-DCE will not be considered site-related because this compound is a breakdown product of PCE or TCE due to naturally occurring biodegradation. Neither PCE nor TCE were shown as site-related.

The level of 1,1-DCA in the groundwater from MW-7D has been less than 5 µg/l since July 2002. Historically 1,1-DCA was observed as a multiple exceedance in the

groundwater from MW-7D; however, 1,1-DCA will not be considered site-related because this compound is a naturally occurring biodegradation product of 1,1,1-TCA (parent product), which was determined to be not site-related.

5.2.3 Water Quality Trends Over Time

The concentrations of VOCs have decreased in groundwater from a majority of the shallow wells located at the site during the Performance Monitoring Period. The decrease in VOC concentrations during this time frame is attributable to the successful operation of the remediation system.

Section 6.0

6.0 RECOMMENDATIONS

Continued operation of the remediation system under the current pumping conditions and performance monitoring is recommended for the Circuitron site because the remediation system is causing a decrease in the levels of VOCs in the shallow groundwater at the site.

Eliminate collection of groundwater samples from the deep wells for the purpose of chemical analysis.

Section 7.0

/

7.0 REFERENCES

- GeoTrans, January 21, 2005. Streamlined Remediation System Evaluation, Circuitron Corporation Superfund Site – East Farmingdale, New York.
- Lockheed Martin, 7 April 2006. Investigation of Chlorinated Source at the Circuitron Site, East Farmingdale Suffolk County New York, Work Assignment 0-0132- Trip Report.
- Radian International, July 13, 1999. Final Report OU#2 Groundwater Investigation Report, Circuitron Corporation, East Farmingdale, New York.
- Roy F. Weston, Inc., 1994. Focused Feasibility Study, Second Operable Unit for the Circuitron Corporation Site, East Farmingdale, New York.
- URS Corporation, 18 July 2005. Groundwater Flow Modeling, Circuitron Corporation Superfund Site – East Farmingdale, New York.
- URS Corporation, Annual Performance Monitoring Report (data through spring 2004), Groundwater Treatment System, Circuitron Corporation, East Farmingdale, New York, October 2004.
- URS Corporation, Annual Performance Monitoring Report (data through spring 2003), Groundwater Treatment System, Circuitron Corporation, East Farmingdale, New York, March 2004.
- URS Corporation, August 12, 2002. Monthly Progress Report for O&M June 1, 2002 to June 30, 2002, Groundwater Treatment System, Circuitron Corporation, East Farmingdale, New York.
- URS Corporation, September 6, 2000. Operation and Maintenance Manual, Groundwater Treatment System, Circuitron Corporation, East Farmingdale, New York.
- United States Environmental Protection Agency, Region II, September 1994. Record of Decision, Operable Unit Two (OU-2), Circuitron Corporation, East Farmingdale, Suffolk County, New York.

**Appendix A-1
Total VOC Concentrations**

Appendix A-1
Total VOC Concentrations

Well Type	Monitoring Well	Jun 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	Jul - Aug 2001	Oct 2001	Jan - Feb 2002	Jul - Aug 2002	App 03	Jun 04	Jun 05	Jul 06
Shallow	MW-1S	16	5	56	4	8	5	4	219	*239	2	2	
Shallow	MW-3S	20	5	7	8	6	*4	4	19	*25	16	1	314.4
Shallow	MW-4S	1155	915	720	279	93	328	347					
Shallow	MW-6S	15	374	119	89	*112	107	64					
Shallow	MW-7S		*2				11						
Shallow	MW-13	154	397	124	47	41	31	35	*14	34	*10		
Shallow	MW-14	30	10	17	13	14	15	21	1	6	*3		1.3
Shallow	MW-15	68	*1	*35	29	5	5	*2					
Shallow	MW-16				*		1	3					
Shallow	MW-17	44	71	37	11	14	32	26	8	4			
Shallow	MW-18				13	13	10						5
Shallow	MW-19S	17	34	21	14	13	16	5					
Deep	MW-1D	61	52	45	*41	7	*53	57	45	27	*26	24	8.2
Deep	MW-3D	5	2	7	4	5	5	8	1				1.0
Deep	MW-4D	*94	57	49	50	41	38	43	*23		*34	10	10.6
Deep	MW-5D	*10	30	4	7	4	8		37				
Deep	MW-6D	30	24	35	14	20	31	17		25	*28	20	25.3
Deep	MW-7D	30	35	29	36	23	32	*28	19	*8.5	*3		
Deep	MW-19D	133	139	136	158	176	*180	214	199	*146	*111	*130	*231

Note:

VOC: Volatile Organic Compound

All concentrations in ug/l.

Blank cells indicate no VOCs detected

* Values marked with an asterisk are the arithmetic mean of normal and duplicate samples

** Values marked with two asterisks are the arithmetic mean of multiple diffusive bag samples. For MW-4S and MW-19D, values are the arithmetic mean of bag samples, duplicates, and low flow samples.

For MW-19D sample in 2006, value is the arithmetic mean of normal and duplicate samples.

Appendix A-2

**Appendix A-2
Groundwater Sampling Results by Well**

Groundwater Sampling Results for
MW-1S

Analyte	NY Water Quality Criteria	Feb 1994	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun - 04	Jun - 05	Jui - 06
1,1-Dichloroethane	5	0.70 J	<5	<5	<5	<5	5 J	<5	<5	<5	<5	<5	<5	<0.28
1,1-Dichloroethene	5	1.00 U	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5	<0.40
1,1,1-Trichloroethane	5	0.40 J	<5	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<0.43
1,2-Dichloroethene (total)	5	1.00 U	<5	<5	<5	<5	2 J	<5	<5	<5	<5	<5	<5	<0.44
Acetone	NP	3.00 J	11 B	<10	3 JB	<10	<10	<10	<10	5 J	<7UJ	<10UJ	<16U	
Chloroform	7	1.00 U	<5	<5	<5	<5	4 J	4 JB	8 B	<5	<5	<5	<5	<0.24
Methylene Chloride	5	2.00 U	5 B	<5	2 JB	<5	8	<5	<5	<5	<5	<5	<5	<0.91
Tetrachloroethene	5	1.00 U	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.35
Toluene	5	1.00 U	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.31
Trichloroethene	5	1.00 U	<5	<5	<5	<5	12	<5	<5	<5	<5	<5	<5	<0.31
Turbidity	5	NR	229	NR	27	0	0.1	NR	33.1	0	83	NR	NR	NR
Antimony	3	28.30 U	<2.2	NR	<2.3	NR	2.2 J	NR	<1.9	<2.2	<2.5	NR	NR	NR
Arsenic	25	R	12.1	NR	18.5	NR	8.2	NR	6.0	11.1	<3.5	NR	NR	NR
Beryllium	3	0.20 U	<0.10	NR	0.37 J	NR	<0.20	NR	<0.10	0.22U	<0.68U	NR	NR	NR
Chromium	50	7.70 B	2.2	NR	2.2 J	NR	1.2	NR	3.3	3.1U	12.4	NR	NR	NR
Copper	200	17.80 B	7.3	NR	1.9	NR	1.3	NR	3.3	<0.30	8.6	NR	NR	NR
Iron	300	52600.00	19400	NR	31200	NR	22000	NR	20000	24300	8990	NR	NR	15000
Lead	15	2.90 B	<2.3 UU	NR	<2.1	NR	<2.6	NR	2.5	<1.7	<2.6	NR	NR	NR
Manganese	300	714.00	393	NR	559	NR	429	NR	366	403	289	NR	NR	NR
Mercury	0.7	0.20 U	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	NR	NR	NR
Nickel	100	10.80 U	2.2	NR	2.2	NR	<1.2	NR	3.0	4.1U	7.8	NR	NR	NR

Top of Screen Elevation: 62.04 feet
Groundwater Elevation (feet):
Bottom of Screen Elevation: 52.04 feet

59.52 58.62 57.42 59.82 60.72 56.61 51.92 53.02 56.32 58.49 60.22 62.17

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level
Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.
Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not Sampled

NY: New York Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999)

NP: Not proposed quantification level available

NR: Not required

Data Qualifiers:

B: The analysis was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated detection limit

R: Rejected during data validation

*Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgrade wells.

**Groundwater Sampling Analytical Results for
MW-3D**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06
1,1,1, Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.34
1,1,2, Trichloroethane (total)	5	<5	1 J	1 J	<5	<5	1 J	1 J	1 J	<5	<5	<5	<5	<0.53
Acetone	NP	<10	2 JB	4 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.7U
Chloroform	7	<5	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.51
Methylene Chloride	5	5 JB	<5	4 JB	<5	5 J	4 JB	7	<5J	<5	<3U	<5	<5	<1.2U
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	1.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.28
Turbidity	5	23.3	NR	2	21	0.0	NR	114	4.2	4	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	2.1 J	NR	<1.9	2.5 U	<2.5	NR	NR	NR	NR
Arsenic	25	<3.2	NR	<2.4	NR	<2.3	NR	<3.0	3.6 U	<3.5	NR	NR	NR	NR
Beryllium	3	<0.10	NR	0.15 J	NR	<0.20	NR	<0.10	<0.10	<0.48U	NR	NR	NR	NR
Chromium	50	86.1	NR	7.1 J	NR	2.3	NR	212	50.9	49.7	NR	NR	NR	NR
Copper	200	10.3	NR	3.9	NR	3.2	NR	17.9	14.9	8.5	NR	NR	NR	NR
Iron	300	600	NR	176	NR	105	NR	962	1080	793	NR	NR	NR	NR
Lead	15	7.9 J	NR	3.9	NR	<2.6	NR	11.0	10.6	6.7	NR	NR	NR	NR
Manganese	300	144	NR	418	NR	269	NR	197	206	276	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	NR	NR	NR	NR
Nickel	100	58.1	NR	12.6	NR	8.2	NR	32.8	23.0	30.9	NR	NR	NR	NR

Top of Screen Elevation: -1.65 feet
Groundwater Elevation (feet):
Bottom of Screen Elevation: -11.65 feet

Note: Viable and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units.

Elevations referenced to mean sea level
Elevations taken from NYDEC's Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NY Water Quality Criteria: NYSDDEC Regulation for Surface Waters and Groundwater; Section 703.5 (August 1999)

NR: No proposed quantification level available

NH: Not required

Bolded values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

B: The analysis was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

UJ: Compound is not detected and the associated quantification limit is uncertain

R: Rejected during data validation

**Groundwater Sampling Analytical Results for
MW-3S**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	July - Aug 2002 Duplicate	Apr-03	Jun-04	Jun-05	Jul-06
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<0.28
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.40
1,1,1 Trichloroethane	5	4 J	10	5	7	4 J	3 J	3 J	5 J	4 J	4 J	2 J	2 J	<0.43
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<0.44
Acetone	NP	11 B	3 JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5U
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.64
Methylene Chloride	5	5 B	<5	<5	<5	4 J	5 JB	3 J	5 J	<5J	<5J	<5J	<5J	<0.91
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5J	<5J	<0.35
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5J	<5J	<0.31
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5J	<5J	<0.31
Turbidity	5	57.4	NR	47	4	0.0	NR	13.3	10.1	10.1	30	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	NR	<1.9	3.1U	<2.2	<2.5	NR	NR	NR
Arsenic	25	3.4	NR	<3.4	NR	<2.3	NR	<3.0	<2.5	<2.5	<3.5	NR	NR	NR
Beryllium	3	0.15	NR	<0.10	NR	<0.20	NR	<0.10	0.14U	0.22U	<0.42U	NR	NR	NR
Chromium	50	10.5	NR	11.7 J	NR	1.6	NR	9.7	16.2	27.2	14.5	NR	NR	NR
Copper	200	68.6	NR	34.2	NR	10.6	NR	28.0	26.4	27.0	29.1J	NR	NR	NR
Iron	300	4460	NR	3160	NR	885	NR	1290	2140	2400	1810	NR	NR	NR
Lead	15	11.6 J	NR	<2.1	NR	<2.6	NR	<2.2	5.0	6.0	4.9	NR	NR	NR
Manganese	300	56.8	NR	100	NR	36.7	NR	33.7	31.4	79.9	24	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	0.27	<0.10	NR	NR	NR
Nickel	100	12.4	NR	19.4	NR	4.4	NR	10.6	24.4	23.0	11.6	NR	NR	NR

Top of Screen Elevation: 60.53 feet

Groundwater Elevation: 50.53 feet

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level
Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1' above the bottom of the well.

NS: Not sampled

NY Water Quality Criteria: NYSDDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification level available

NR: Not required

Bolded values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-4D

Analyte	NY Water Quality Criteria	June 2000	June 2000 Duplicate	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - Jun 2003	April 2003 Duplicate	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06
1,1 Dichloroethane	5	7	8	5	4 J	2 J	4 J	3 J	4 J	4 J	3 J	3 J	3 J	4 J	2 J	3.0 J
1,1,1 Trichloroethane	5	14	15	8	6	8	6	8	9 J	5 J	5	8	9	3 J	3 J	4.8 J
1,1,2 Dichloroethane (total)	5	26	28	20	13	23	11	12	12	13 J	8	8	8	10	2 J	<0.33 JU
Acetone	NP	2 J	2 J	1 J	<5	2 J	1 J	<5	1 J	<5	<5	1 J	2 J	<5	<5	<0.40 JU
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10	<10 JU	<10 JU	<10 JU	<2.7 JU
Chromate	NP	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.42 JU
Methylene Chloride	5	3 JB	4 JB	<5	7 JB	<5	4 JB	6	5 J	5 J	<5 J	<5 J	<3 U	<5	<10	<0.51 JU
Tetrachloroethene	5	8	6	4 J	<5	5 J	3 J	2 J	2 J	2 J	2 J	2 J	2 J	<5	<5	<1.6 JU
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5 J	<5 J	<5	<5	<5	<5	<5	<0.24 JU
Trichloroethene	5	24	25	17	11	3 J	11	9	10	8 J	5 J	5	6	7	3 J	2.8 J
Turbidity	5	11.8	NIR	0	18	0.0	NIR	3.6	0.8	6	6	NR	NR	NR	NR	NR
Antimony	3	<2.2	<2.2	NIR	<2.3	NIR	<1.9	NIR	<1.9	2.4 U	<2.5	<2.5	NR	NR	NR	NR
Arsenic	25	<3.2	<3.2	NIR	<2.4	NIR	<2.3	NIR	<3.0	<2.5	<3.5	<3.5	NR	NR	NR	NR
Beryllium	3	0.1	<0.10	NIR	0.24	NIR	<0.20	NIR	<0.10	0.25 U	<0.10	<0.10	NR	NR	NR	NR
Chromium	50	4.1	4.7	NIR	6.6	NIR	1.4	NIR	7.9	19.9	24.5	18.4	NR	NR	NR	NR
Copper	200	3.9	5.3	NIR	5.5	NIR	3.1	NIR	6.8	6.4	5.9	4.6	NR	NR	NR	NR
Iron	300	1190	1510	NIR	827	NIR	1080	NIR	333	429	393	268	NR	NR	NR	NR
Lead	15	6.2	3.4	NIR	2.4	NIR	<2.6	NIR	<2.2	2.7 U	<2.6	<2.6	NR	NR	NR	NR
Manganese	300	118	120	NIR	96.5	NIR	137	NIR	120	116	29.9	27.5	NR	NR	NR	NR
Mercury	0.7	<0.10	<0.10	NIR	<0.10	NIR	<0.10	NIR	<0.10	<0.10	<0.10	<0.10	NR	NR	NR	NR
Nickel	100	12	11	NIR	7.3	NIR	5.6	NIR	10.9	11.8	16.2	14.8	NR	NR	NR	NR

Top of Screen Elevation: -3.00 feet
Bottom of Screen Elevation (feet): -13.00 feet

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units
Elevations referenced to mean sea level

Elevations referenced to mean sea level since sample was taken for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not Sampled

NY Water Quality Criteria: NYSDDEC Flavimil for Surface Waters and Groundwaters, Section 703.5 (August 1996)

NP: No proposed quantification level available

NR: Not Required

Bidirectional values exceed the NY Water Quality Criteria

Data presented from May 1983 and February 1984 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-mediation conditions for the upgradient wells.

DATI Statistics:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the established level

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-4S

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun-04	Jun-04 (duplicate)	Jun-04 (Low Flow)	Jun-05	Jun-05 (duplicate)	Jul-06
1,1 Dichloroethane	5	14 JD	14 JD	7 JD	7 JD	2 J	2 JD	4 JD	NS	<5	<5	<5	<5	<5	<5	<34
1,1,1 Trichloroethane	5	40 JD	22 JD	<5	<5	3 JD	5 JD	NS	<5	4J	4J	5	1J	<5	<53	
1,2 Dichloroethene (total)	5	1000 D	860 D	260 D	80	280 D	320 D	NS	190	200	210	260	92	85	310	
Acetone	NP	37 JBD	<10	28 JBD	<20	<10	<10	NS	<5	<5	<5	<5	<5	<5	<40	
Chloroform	7	<50	<5	<5	<5	<5	<5	NS	1J	<5	<5	<5	<5	<5	<7U	
Chloromethane	NP	<10	<10	<20	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<51	
Methylene Chloride	5	51 BD	<5	41 BD	<10	<5	28 BD	4 JBD	NS	<6J	<1U	<2U	<5	<5	<4U	
Tetrachloroethene	5	13 JD	19 JD	12 D	11	15 D	14 D	NS	26	11	11	12	<5	<5	<18	
Toluene	5	<50	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<5	<5	<5	
Trichloroethene	5	<5	<50	<5	<5	<10	<5	<10	<10	NS	<5	<5	<5	<5	<5	
Turbidity	5	31	NR	0	12	0.0	0.0	NR	15.1	NS	50	NR	NR	NR	NR	
Antimony	3	<2.2	NR	<2.3	NR	2.3 J	NR	2.1	NS	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	<3.2	NR	3.0	NR	<2.3	NR	<3.0	NS	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	<0.10	NR	0.15	NR	<0.20	NR	<0.10	NS	<0.10	NR	NR	NR	NR	NR	NR
Chromium	50	674	NR	114	NR	1110	NR	90.8	NS	380	NR	NR	NR	NR	NR	NR
Copper	200	35.1	NR	14.9	NR	35.2	NR	11.0	NS	16	NR	NR	NR	NR	NR	NR
Iron	300	3720	NR	632	NR	3740	NR	430	NS	1790	NR	NR	NR	NR	NR	<100
Lead	15	4.1 J	NR	<2.1	NR	<2.6	NR	<2.2	NS	<2.7U	NR	NR	NR	NR	NR	NR
Manganese	300	97	NR	15.3	NR	37.3	NR	5.3	NS	24.2	NR	NR	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	NS	<0.10	NR	NR	NR	NR	NR	NR
Nickel	100	28.3	NR	9.4	NR	83.7	NR	15.4	NS	29.9	NR	NR	NR	NR	NR	NR
		10x Dilution	5x Dilution	2x Dilution		2x Dilution		2x Dilution								
Top of Screen Elevation: 63.32 feet																
Groundwater Elevation (feet):																
Bottom of Screen Elevation: 53.32 feet																

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level
Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 11' above the bottom of the well.

NS: Not Sampled

NP: No proposed quantification limit available

NR: Not required

Blank values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994, as published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-intermediate conditions for the upgradient wells.

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

UJ: Compound is not detected and the associated quantitation limit is unobtainable

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-5D

Analyte	NY Water Quality Criteria	June 2000	June 2000 Duplicate	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06
1,1-Dichloroethane	5	3J	3J	3J	2J	2J	1J	<5	<5	<5	<5	<5	<5	<5	<0.34
1,1,Dichloroethene	5	2J	1JB	3J	1J	1J	<5	<5	<5	<5	<5	<5	<5	<5	<0.53
1,1,1-Trichloroethane	5	3J	3J	3J	1J	2J	1J	<5	<5	<5	<5	<5	<5	<5	<0.33
1,1,2-Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25
1,2-Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.40
Acetone	NP	<10	1JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.7U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.23
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.21
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42
Methylene Chloride	5	<5	<5	16B	<5	<5	8B	<5	<5	<5	<5	<5	<3U	<5	<1.4U
Tetrachloroethene	5	1J	<5	2J	<5	1J	1J	<5	<5	<5	<5	<5	<5	<5	<0.24
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18
Trichloroethene	5	2J	2J	3J	<5	1J	1J	<5	<5	<5	<5	<5	<5	<5	<0.28
Turbidity	5	0	0	0	NR	11	0	0.1	NR	2	0	0	NR	NR	NR
Antimony	3	<2.2	<2.2	NR	<2.3	NR	2.3U	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR
Arsenic	25	<3.2	<3.2	NR	<3.4	NR	3.9U	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR
Beryllium	3	<0.10	<0.10	NR	<0.10	NR	<0.20	NR	<0.10	0.17U	<0.38U	NR	NR	NR	NR
Chromium	50	31.8	35.8	NR	16.2J	NR	2.6J	NR	16.1	34.2	23.9	NR	NR	NR	NR
Copper	200	59.5	65.8	NR	50.6	NR	47.9	NR	45.4	28.5J	35.5	NR	NR	NR	NR
Iron	300	2130 J	2750 J	NR	713	NR	236	NR	245 J	344	1660	NR	NR	NR	NR
Lead	15	9.4	10.5	NR	2.6	NR	<2.4	NR	3.8	2.0U	<6.5U	NR	NR	NR	NR
Manganese	300	529	529	NR	465	NR	628	NR	575	690	1200	NR	NR	NR	NR
Mercury	0.7	<0.10	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	0.11	<0.13U	NR	NR	NR	NR
Nickel	100	33	40.8	NR	13.2	NR	4.6	NR	11.5	5.4U	10.2	NR	NR	NR	NR

Top of Screen Elevation: -3.00 feet

Groundwater Elevation (feet):

Bottom of Screen Elevation: -13.00 feet

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not sampled

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification level available

NR: Not required

Bolded values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualified:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

UJ: Compound is not detected and the associated quantitation limit is uncertain

R: Rejected during data validation

**Groundwater Sampling Analytical Results for
MW-6D**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr-03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06
1,1-Dichloroethane	5	4 J	3 J	<5	2 J	2 J	2 J	2 J	4 J	3 J	6	6	2 J	3.0 J
1,1,Dichloroethene	5	5 J	4 J	3 J	3 J	3 J	4 J	4 J	7	5	6	6	5	7.8
1,1,1 Trichloroethane	5	10	8	5	5	4 J	5	5	9	6	6	7	6	5.8
1,2-Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	1 J	<5	1 J	1 J	<5	1.1 J
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.38
Acetone	NP	<10	6 JB	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.7U
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.21
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	5 J	2 J	1 J	1 J	<5	<0.42
Methylene Chloride	5	<5	13 B	<5	3 J	15 B	<5	<5	<5	<4 U	<6 U	<5	<1.4 U	
Tetrachloroethene	5	3 J	3 J	<5	4 J	2 J	2 J	4 J	3 J	2 J	2 J	1 J	1.6 J	
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18
Trichloroethene	5	8	6	5	4 J	4 J	4 J	4 J	7	6	7	7	6	6.0
Turbidity		5	0	NR	0	6	0.1	NR	27.0	73	0	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	NR	2.0		<2.2	<2.5	NR	NR	NR
Arsenic	25	<3.2	NR	<2.4	NR	<2.3	NR	4.2 J	<2.5	<3.5	NR	NR	NR	NR
Beryllium	3	<0.10	NR	0.24	NR	<0.20	NR	<0.10	0.16 U	<0.21 U	NR	NR	NR	NR
Chromium	50	458	NR	157	NR	23.1	NR	378	479	300	NR	NR	NR	NR
Copper	200	19.3	NR	9.7	NR	8.8	NR	28.8	15.1	<11.4 U	NR	NR	NR	NR
Iron	300	3670 J	NR	534	NR	180 J	NR	1480 J	870	1500	NR	NR	NR	NR
Lead	15	2.6	NR	2.5	NR	<2.6	NR	5.7	5.2	<2.6 U	NR	NR	NR	NR
Manganese	300	243	NR	146	NR	79.4	NR	110	130	102	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	NR	NR	NR	NR
Nickel	100	449	NR	121	NR	67.3	NR	110	133	235	NR	NR	NR	NR

Top of Screen Elevation: -3.04 feet

Groundwater Elevation (feet): -13.04 feet

Bottom of Screen Elevation: -13.04 feet

58.39	57.89	56.96	59.05	57.09	55.79	53.79	52.29	53.69	57.78	57.78	59.44	61.29
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Note: Volatiles and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level

Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not Sampled

NP: No proposed quantification level available

NR: Not Required

OD: Odor threshold exceeded the NY Water Quality Criteria

Data presented from May 1993 and October 1994 is published in the Record of Decision (USEPA 1994).

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated limit

U: Compound is not detected and the associated quantitation limit is uncertain

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-6S

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	July - Aug 2001 Duplicate	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr-03	Jun-04	Jun-05	Jul-06
1,1,1-Dichloroethane	5	<5	<25	2.5	1.5	<5	<5	<5	NS	<5	<5	<5	<5	<0.34
1,1-Dichloroethene	5	<5	14 JD	<5	<5	1.5	1.5	1.5	NS	<5	1.5	<5	<5	<0.53
1,1,1-Trichloroethane	5	15	360 D	110	85	110	92	54	NS	19	24	16	<0.33	
1,2-Dichloroethene (total)	5	<5	<25	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<0.40
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<0.38
Acetone	NP	<10	3 JB	3 J	<10	<10	<10	<10	NS	<10	<2 UJ	<10	<2.7U	
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<0.21
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<0.42
Methylene Chloride	5	<5	<5	3 JB	<5	3 J	<5	14 B	9 B	NS	<5	<4U	<5	<0.47
Tetrachloroethene	5	<5	<25	1 J	<5	<5	<5	<5	NS	<5	<5	<5	<5	<0.24
Toluene	5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<0.18
Trichloroethene	5	<5	<25	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<0.28
Turbidity	5	0	NR	0	0	0.0	NR	NR	NR	25.5	NR	0	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	<1.9	NR	3.4	NS	<2.5	NR	NR	NR
Arsenic	25	<3.2	NR	<2.4	NR	<2.3	<2.3	NR	<3.0	NS	<3.5	NR	NR	NR
Boron	3	<0.10	NR	0.27	NR	<0.20	<0.20	NR	<0.10	NS	<0.16U	NR	NR	NR
Chromium	50	159	NR	77.7	NR	3.9	4.2	NR	836	NS	38.8	NR	NR	NR
Copper	200	9.7	NR	6.5	NR	3.0	3.5	NR	9.8	NS	<3.4U	NR	NR	NR
Iron	300	899 J	NR	463	NR	37.3 J	27.5 J	NR	4760	NS	291	NR	NR	NR
Lead	15	<2.3	NR	<2.1	NR	<2.6	<2.6	NR	<2.2	NS	<2.6	NR	NR	NR
Manganese	300	16.7	NR	53.4	NR	28.7	28.7	NR	14.9	NS	<5.4U	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	<0.10	NR	<0.10	NS	<0.10	NR	NR	NR
Nickel	100	7.9	NR	17.4	NR	7.6	7.2	NR	20.6	NS	<1.8	NR	NR	NR

5x Dilution

Top of Screen Elevation: 62.37 feet	Groundwater Elevation (feet):	Bottom of Screen Elevation: 52.37 feet
58.29	58.29	56.79

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

Since June 2004, monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

NS: Not sampled

NT: Not required

NP: No proposed quantification level available

NR: Not rejected

Bolded values exceed the NY Water Quality Criteria

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

UJ: Compound is not detected and the associated quantitation limit is uncertain

R: Rejected during data validation

**Groundwater Sampling Analytical Results for
MW-7S**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Oct 2000 Duplicate	Jan - Feb 2001	Jan - Feb 2001 Duplicate	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun - 04	Jun - 05	Jul - 06
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.34UJ
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.53UJ
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.33UJ
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.40UJ
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	<10	<10	<10	<0.38UJ
Acetone	NP	<10	2 J	<10	2 J	<5	<10	<10	<10	NS	NS	<10	<10	<10	<2.7UJ
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.21UJ
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.42UJ
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	<10	<10	<10	<0.51UJ
Methylene Chloride	5	<5	<5	2 JB	1 JB	<5	<5	<5	<5	11 B	NS	NS	<5	<5	<1.0UJ
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.24UJ
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.18UJ
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.28UJ
Turbidity	5	0	NR	NR	190	190	0	0	0	NR	NR	5	NR	NR	NR
Antimony	3	<2.2	NR	NR	<2.3	<2.3	NR	<1.9	NR	NS	NS	<2.5	NR	NR	NR
Arsenic	25	<3.2	NR	NR	<3.4	<3.4	NR	<2.3	NR	NS	NS	<3.5	NR	NR	NR
Beryllium	3	<0.10	NR	NR	<0.10	<0.10	NR	<0.20	NR	NS	NS	<0.62U	NR	NR	NR
Chromium	50	57.3	NR	NR	49.4 J	39.1 J	NR	<0.90	NR	NS	NS	126	NR	NR	NR
Copper	200	15	NR	NR	10.1	12.2	NR	3.0	NR	NS	NS	2.9	NR	NR	NR
Iron	300	912 J	NR	NR	498	427	NR	<15.7	NR	NS	NS	787	NR	NR	NR
Lead	15	<2.3	NR	NR	<2.1	<2.1	NR	<2.6	NR	NS	NS	<2.6	NR	NR	NR
Manganese	300	245	NR	NR	155	162	NR	1.4	NR	NS	NS	88.2	NR	NR	NR
Mercury	0.7	<0.10	NR	NR	<0.10	<0.10	NR	<0.10	NR	NS	NS	<0.10	NR	NR	NR
Nickel	100	22.5	NR	NR	9.7	7.3	NR	1.5	NR	NS	NS	9.1	NR	NR	NR

Top of Screen Elevation: 63.06 feet
Bottom of Screen Elevation: 53.06 feet

Notes:
Values and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units
Elevations refer to mean sea level
Since June 2004, monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 foot above the bottom of the well.
NS: Not sampled
NY Water Quality Criteria: NYSDDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification level available
NR: Not required
Bolded values exceed the NY Water Quality Criteria
Data presented from May 1983 and February 1984 is published in the Record of Decision (USEPA 1984). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

UJ: Compound is not detected and the associated quantitation limit is uncertain

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-13

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	July - Aug 2002 Duplicate	Apr-03	Jun-04 (topmost bag)	Jun-05 (bottom bag)	Jul-06	
1,1 Dichloroethane	5	14	40 D	9	8	7	2 J	<5	3 J	3 J	<5	<5	<5	<5	
1,1 Dichloroethane	5	8	7 JD	2 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,1 Trichloroethane	5	120	350 D	110	34	15	34	12	11	30	14	6	5	<0.34UJ	
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	NP	8 JB	<10	2 JB	4 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Chloromethane	NP	<10	<10	1 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Methylene Chloride	5	4 JB	<5	1 JB	<5	14 B	1 JB	<5	<5	<5	<5	<5	<5	<5	
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Turbidity	5	200	NR	0	0	0	NR	22.5	110	110.0	45	NR	NR	NR	
Antimony	3	<2.2	NR	<2.3	NR	2.3 J	NR	<1.9	<2.2	<2.2	<2.5	NR	NR	NR	
Arsenic	25	4.3	NR	<3.4	NR	4.7 J	NR	4.1 J	<2.5	<2.5	<3.5	NR	NR	NR	
Beryllium	3	<0.10	NR	<0.10	NR	<0.20	NR	0.12	0.10U	0.10U	<0.10	NR	NR	NR	
Chromium	50	6.3	NR	2.3 J	NR	1.5 J	NR	3.5	0.52U	16.3	<3.1U	NR	NR	NR	
Copper	200	12.7	NR	5.6	NR	3.1	NR	10.2	1.8	2.8	4.1	NR	NR	NR	
Iron	300	17200	NR	687	NR	634	NR	2050 J	<14.5	707	919	NR	NR	290	
Lead	15	5.2	NR	<2.1	NR	<2.4	NR	<2.2	<1.7	<1.7	<2.6	NR	NR	NR	
Manganese	300	385	NR	54.9	NR	17.3	NR	26.6	32.1	31.8	28	NR	NR	NR	
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	<0.10	NR	NR	NR	
Nickel	100	12.2	NR	7.2	NR	4.7	NR	6.7	3.2	5.3	<5.1U	NR	NR	NR	
5x Dilution															

Top of Screen Elevation: 53.65 feet
Groundwater Elevation (feet):
Bottom of Screen Elevation: 43.65 feet

Notes:
•Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to mean sea level
Since June 2004, monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1' above the bottom of the well.

NS: Not sampled

NY Water Quality Criteria: NYSDER Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification level available

NR: Not required

Bolded values exceed the NY Water Quality Criteria

*Data presented from May 1983 and February 1984 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

R: Rejected during data validation

**Groundwater Sampling Analytical Results for
MW-14**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr-03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06
1,1-Dichloroethane	5	4J	2J	1J	2J	<5	2J	<5	2J	4J	<5	<5	<5	<5
1,1,1-Dichloroethene	5	1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	5	21	8	15	5J	12	6	15	1J	2J	3J	<5	<5	<5
1,1,2-Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethene (total)	5	1J	<5	<5	1J	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NP	<10	<10	1JB	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloromethane	NP	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	5	<5	<5	<5	5J	<5	9B	4JB	<5	<5	<5	<5	<5	<5
Tetrachloroethene	5	2J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	5	1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Turbidity	5	75	NR	0	0	0	NR	25.7	0	95	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR
Arsenic	25	<3.2	NR	<3.4	NR	<2.3	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR
Beryllium	3	<0.10	NR	<0.10	NR	<0.20	NR	<0.10	0.22U	<0.65U	NR	NR	NR	NR
Chromium	50	3.1	NR	2.6J	NR	<0.90	NR	3.3	3.6U	<6.4U	NR	NR	NR	NR
Copper	200	3.2	NR	2.3	NR	0.87	NR	3.0	1.5	2.9	NR	NR	NR	NR
Iron	300	14100	NR	7870	NR	6830 J	NR	12200	14600	18100	NR	NR	NR	NR
Lead	15	2.8	NR	<2.1	NR	<2.6	NR	<2.6	<2.2	<1.7	<2.6	NR	NR	NR
Manganese	300	1090	NR	217	NR	421	NR	374	221	284	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	0.11	NR	NR	NR	NR
Nickel	100	6.5	NR	2.9	NR	3.6	NR	5.5	3.8U	6.5	NR	NR	NR	NR

Top of Screen Elevation: 52.58 feet
Groundwater Elevation (feet): 56.68
Bottom of Screen Elevation: 42.58 feet

Note: Volatile and metal concentrations presented in micrograms per liter. Turbidity measurements presented in nephelometric turbidity units.
Elevations referenced to mean sea level.
Since June 2004, monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 ft above the bottom of the well.
NS: Not sampled
NY Water Quality Criteria: NYSDEC Regulation for Surface Water and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification was available

NR: Not required

Biased values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994 as published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

J: The analyte was detected in the blank sample

U: Associated value is an estimated quantity

NR: Compound was not detected above the associated level

R: Compound is not detected and the associated quantitation limit is uncertain

R: Rejected during data validation

**Groundwater Sampling Analytical Results for
MW-15**

Analyte	NY Water Quality Criteria												MW-15											
	June 2000	Oct 2000	Oct 2000	Duplicate	Jan - Feb 2001	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	Jan - Feb 2002	Duplicate	July - Aug 2002	Apr - Jun 03	Jun - Jul 04	(topmost bag)	Jun - Jul 04	(bottom bag)	Jun - Jul 05	Jun - Jul 06				
1,1-Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethene (total)	5	42	1.1	1.1	20	24	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	NP	<10	<10	3.1B	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Chlorobenzene	5	1.1	<5	1.1	1.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Methylene Chloride	5	<5	<5	<5	1.1B	5.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	5	11	<5	9	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	5	<5	<5	<5	<5	4.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	5	14	<5	<5	4.1	5.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Turbidity	5	0	NR	NR	190	190	0	0.1	NR	19.4	NR	0	36	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Antimony	3	<3.2	NR	<2.3	NR	2.3	<2.3	NR	2.3	UJ	NR	<1.9	<1.9	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2
Arsenic	25	10.6	NR	6.4	6.8	NR	6.9	NR	6.9	J	NR	4.9	7.2	2.5	<3.8U	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	3	0.21	NR	<0.10	<0.10	NR	<0.10	NR	<0.20	NR	<0.10	0.12	0.13	0.13U	<0.10	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	50	19.5	NR	4.4	4.4	3.8	4.4	3.8	4.4	UJ	NR	2.4	4.2	2.7U	8.9	NR	NR	NR	NR	NR	NR	NR	NR	NR
Copper	200	8.7	NR	NR	7.3	NR	<50	NR	<50	NR	3.8	8.5	1.3	7.8	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Iron	300	39100	J	NR	36400	34900	NR	27800	NR	19800	J	19700	J	29300	22700	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	15	4.6	NR	4.6	3.4	NR	<2.4	NR	2.9	NR	4.4	<1.7	<3.2U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Manganese	300	405	NR	417	403	NR	344	NR	199	NR	194	339	309	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Nickel	100	13	NR	4.8	3.8	NR	2.7	NR	3.1	NR	3.3	1.6U	9.3	9.3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: 54.60 feet
Groundwater Elevation (feet):
Bottom of Screen Elevation: 44.60 feet

Notes: Volatile and metal concentrations presented in micrograms per liter. Turbidity measurement is presented in nephelometric turbidity units.

Elevations referenced to mean sea level
Since June 2004 monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not sampled

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification level available

NR: Not required

Bolded values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA, 1994). These data provide a benchmark of pre-remediation conditions for the upgraded wells.

Data Qualifiers:

B: The analysis was selected in a blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated limit & its uncertain

R: Rejected during data validation

**Groundwater Sampling Analytical Results for
MW-16**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	Apr - May 2001 Duplicate	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun-04 (topmost bag)	Jun-05 (bottom bag)	Jun-05	Jul-06
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	3.0	<5	<5	<5	<5	<5	<0.53
1,2 Dichloroethane (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.47
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.84
Acetone	NP	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	<2.8U
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.74
Methylene Chloride	5	<5	<5	<5	<5	<5	<5	<5	1.1B	<5	<5	<5	<5	<5	<2.1U
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.50
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38
Turbidity	5	133	NR	47	0	0	0	0	NR	26.4	97	170	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	NR	<1.9	NR	<1.9	2.2U	<2.5	NR	NR	NR	NR
Arsenic	25	17.2	NR	10.4	NR	NR	5.7	NR	10.3J	39.8	6.6	NR	NR	NR	NR
Beryllium	3	<0.10	NR	<0.10	NR	NR	<0.20	NR	<0.10	1.30U	<0.68U	NR	NR	NR	NR
Chromium	50	6.9	NR	3.6 J	NR	NR	<0.90	NR	4.4	43.6	<6.5U	NR	NR	NR	NR
Copper	200	11.8	NR	7.2	NR	NR	0.89	NR	7.2	54.7	<0.60	NR	NR	NR	NR
Iron	300	33700 J	NR	25200	NR	NR	25400 J	NR	24600 J	58400	20900	NR	NR	NR	NR
Lead	15	3.9	NR	<2.1	NR	NR	<2.6	NR	2.7	28.6	<2.6	NR	NR	NR	NR
Manganese	300	524	NR	426	NR	NR	430	NR	363	438	293	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	NR	<0.10	NR	<0.10	<0.10	<0.10	NR	NR	NR	NR
Nickel	100	5.2	NR	2.7	NR	NR	1.9	NR	4.1	23.4U	5.7	NR	NR	NR	NR

Top of Screen Elevation: 54.75 feet
Groundwater Elevation (feet): 44.75 feet
Bottom of Screen Elevation: 44.75 feet

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units.

Elevations referenced to mean sea level
Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.
Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not Sampled

NP: No proposed quantification value available

NR: Not required

Bodied values exceed the NY Water Quality Criteria

Data presented from May 1983 and February 1984 is published in the Record of Decision (USEPA 1984). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

S: The analyte was detected in the blank sample

J: Associated value is an estimated summary

U: Compound was not detected above the associated level

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-17

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Apr - 03 (topmost bag)	Jun - 04 (bottom bag)	Jun - 05	Jul - 06
1,1 Dichloroethane	5	5	7	3 J	2 J	1 J	1 J	2 J	3 J	<5	<5	<5	<5	<0.38
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29
1,1,2 Trichloroethane	5	39	58	33	9	12	19	22	5 J	4 J	<5	<5	<5	<0.53
1,2 Dichloroethene (total)	5	<5	3 J	<5	<5	1 J	2 J	<5	<5	<5	<5	<5	<5	<0.44
Acetone	NP	<10	<10	<5	<5	<10	<10	<5	<10	<10	<10	<10 JU	<10 JU	<2.8 U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93
Methylene Chloride	5	<5	<5	<5	<5	<5	<5	9 B	1 JB	<5	<5	<5 U	<5 U	<1.5 U
Tetrachloroethene	5	<5	3 J	1 J	<5	<1	1 J	1 J	<5	<5	<5	<5	<5	<0.50
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38
Turbidity	5	15.9	NR	35	10	0.1	NR	18	0	200	NR	NR	NR	NR
Antimony	3	2.5	NR	<2.3	NR	2.3 UJ	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR
Arsenic	25	6.5	NR	<3.4	NR	3.9 UJ	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR
Beryllium	3	0.26	NR	<0.10	NR	<0.20	NR	<0.10	0.26 U	<0.64 U	NR	NR	NR	NR
Chromium	50	25.9	NR	7.6 J	NR	2.6 J	NR	2.8	4.8	65	NR	NR	NR	NR
Copper	200	79.1	NR	42.6	NR	29.2	NR	18.5	20.1	108	NR	NR	NR	NR
Iron	300	16900 J	NR	1600	NR	409	NR	662 J	982	11100	NR	NR	NR	NR
Lead	15	20.1	NR	<2.1	NR	<2.4	NR	2.3	<1.7	14.6	NR	NR	NR	NR
Manganese	300	386	NR	73.8	NR	176	NR	108	53.7	401	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.12	NR	NR	NR	NR
Nickel	100	61.9	NR	47.4	NR	49.5	NR	22.7	14.2 U	59.6	NR	NR	NR	NR

Top of Screen Elevation: 58.08 feet

Groundwater Elevation (feet):

Bottom of Screen Elevation: 48.08 feet

Notes: Volatile end metals concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units

Elevations referenced to screen as level: monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not sampled

NY Water Quality Criteria: NY'SDEC Regulation for Surface Waters and Groundwaters, Section 703.5 (August 1, 1999)

NR: Not proposed quantification level available

NR: Not Required

B: The analyte was detected in the blank sample

*Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA 1994). These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

J: Associated value is an estimated quantity

U: Compound is not detected and the associated quantification limit is uncertain

NP: No proposed quantification level available

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-18

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	July - Aug 2001 Duplicate	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr - 03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun - 05	Jul - 06
1,1-Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38
1,1,1-Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29
1,1,1-Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.53
1,1,2-Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.44
1,2-Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.47
Acetone	NP	<10	7.1B	6.1J	<10	<10	<10	<10	<10	<10	<10	<4U	<4U	<10	<2.8U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18
Chlorobenzene	5	<5	1.1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93
Methylene Chloride	5	<5	2.1B	7	<5	<5	10 B	<5	<5	<5	<5	<1U	<2U	<5	<0.97U
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.50
Toluene	5	<5	<5	2.1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32
Trichloroethene	5	<5	<5	1.1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38
Turbidity	5	247	NR	0	0	0	NR	NR	16.4	0	0	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	2.3 UJ	2.3 UJ	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR
Arsenic	25	6.1	NR	8.1	NR	3.9 UJ	3.9 UJ	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR
Beryllium	3	0.1	NR	0.55	NR	<0.20	<0.20	NR	<0.10	0.26U	<0.19U	NR	NR	NR	NR
Chromium	50	31.2	NR	80	NR	3.2 UJ	3.1 J	NR	5.3	6.7	25.7	NR	NR	NR	NR
Copper	200	9.7	NR	13.6	NR	0.52	<0.50	NR	3.4	0.55	<4.6U	NR	NR	NR	NR
Iron	300	9060	NR	13500	NR	905	381	NR	1170 J	1100	3850	NR	NR	NR	NR
Lead	15	4.2	NR	7.5	NR	<2.4	<2.4	NR	<2.2	1.9U	<3.2U	NR	NR	NR	NR
Manganese	300	164	NR	269	NR	15.4	10.6	NR	16.6	23.4	70.4	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	<0.10	NR	<0.10	<0.10	<0.10	NR	NR	NR	NR
Nickel	100	16.4	NR	46.6	NR	2.9	1.9	NR	4.8	4.8U	15.6	NR	NR	NR	NR

Top of Screen Elevation: 58.03 feet
Groundwater Elevation (feet):
Bottom of Screen Elevation: 48.03 feet

Notes: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units
Elevations referenced to mean sea level
Elevations referenced to mean sea level since June 2004, monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.
Diffusion bags were placed with the center at 1 ft above the bottom of the well.

NS: Not sampled
NT: Not Tested
NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1990)

NP: No proposed quantification level available

NR: Not required

Bolded values exceed the NY Water Quality Criteria

*Data presented from May 1993 and February 1994, as published in the Record of Decision (USEPA 1994). These date provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-19D

Analytic	NY Water Quality Criteria	June 2000		Oct 2000		Jan - Feb 2001		Apr - May 2001		July - Aug 2001		Oct 2001		Jan - Feb 2002		July - Aug 2002		Apr - 03		Jun-04 (bottom bag)		Jun-04 (top/bottom bag)		Jun-04 (bottom bag)		Jun-05 (duplicate)		Jul-06						
		3J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J	4J					
1,1-Dichloroethane	5	14	12	18	19	27	28	30	28	16	16	24	11	24	22	22	19	25	24	24	24	24	24	24	24	24	24	24	24					
1,1,1-Trichloroethane	5	23	19	27	27	8	8	8	10	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7				
1,1,1,2-Tetrachloroethane (total)	5	3J	6	<5	7	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10				
2-Butanone	NP	<10	<10	4 JB	<10	<10	<10	<10	<10	8 JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10				
Acetone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10				
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			
Chlorobenzenes	5	<5	<5	<5	<5	<5	<5	<5	<5	5 J	7	7	10	14	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19				
Chloroform	7	2J	2J	<5	5 J	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
Chromatene	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10				
Methylene Chloride	6	<5	13 B	12 B	6	<5	9 B	9 B	9 B	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			
Tetrachloroethene	5	46	47	50	55	62	61	77	62	57	57	2J	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24				
Toluene	5	2J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			
Trichloroethene	5	40	34	37	36	46	43	43	43	55	57	3J	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33			
Turbidity	5	238	NR	0	0	230	0.1	NR	NR	659	250	990	990	990	990	990	990	990	990	990	990	990	990	990	990	990	990	990	990	990	990			
Antimony	3	<2.2	NR	<2.3	NR	2.3 UJ	NR	NR	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Arsenic	25	<3.2	NR	10.4	NR	5.4 J	NR	NR	NR	12.5 J	7.8	<10.8J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Beryllium	3	0.3	43.9	47.4	NR	49.5 J	NR	NR	NR	0.47	2.60	<1.1U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Chromium	50	26.1	NR	26.1	NR	7.8	NR	NR	NR	86.4	55.7	163	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Copper	200	7240	NR	15000	NR	4730	NR	NR	NR	38.2	21.0	114	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Iron	15	10.3	NR	18.0	NR	3.6	NR	NR	NR	27300 J	18900	33800	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Lead	300	557	NR	646	NR	285	NR	NR	NR	568	34.1	724	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Manganese	0.7	<10	NR	<10	NR	<10	NR	NR	<10	NR	<10	<0.16U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Mercury	100	32	NR	32.9	NR	38.0	NR	NR	NR	59.1	35.7	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: Unknown

Groundwater Elevation: Unknown

Bottom of Screen Elevation: Unknown

Note: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units.

Elevations refer to mean sea level

Since June 2004, monitoring wells have been sampled for VOCs only using the diffusion bag sampling method as per USEPA's request.

NS: Not sampled

NY Water Quality Criteria: NYSDDEC Regulation for Surface Waters and Groundwater, Section 703.5 (June 1, 1990)

U: Compound was detected and the associated quantitation limit is uncertain

R: Rejected during data validation

U: Compound was not detected above the associated level

Data generated from May 1983 and February 1984 as published in the Record of Decision (USEPA, 1996). These data provide a benchmark of pre-contamination conditions for the designated wells.

Data Qualified:

B: The analysis was derived in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

R: Rejected during data validation

U: Compound was not detected above the associated level

**Groundwater Sampling Analytical Results for
MW-19S**

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	July - Aug 2002	Apr-03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06
1,1-Dichloroethane	5	6	4.4	3.3	4.4	5.4	5.4	3.3	3.3	4.4	<5	<5	<5	<0.28
1,1,1-Dichloroethane	5	1.4	2.2	1.4	2.2	3.3	1.4	1.4	<5	<5	<5	<5	<5	<0.40
1,1,1,2-Tetrachloroethene (total)	5	8	5.4	1.4	<5	2.4	2.4	1.4	<5	6	<5	<5	<5	<0.43
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.44
Acetone	NP	<10	4.4	4.4B	<10	<10	<10	<10	<10	<10	<4U	<10	<10	<0.92
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2.5UJ
Chlorobenzene	5	2.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.62
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29
Chromatethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.24
Methylene Chloride	5	<5	14 B	12 B	6	<5	9 B	<5	<5	<5	<5	<5	<5	<0.64
Tetrachloroethene	5	<5	2.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2.0UJ
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.35
Trichloroethene	5	<5	2.4	<5	<5	<5	2.4	<5	<5	<5	<5	<5	<5	<0.31
Turbidity	5	64.9	NR	0	0	0.1	NR	62	0	0	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	2.3 UJ	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR
Arsenic	25	4.1	NR	4.7	NR	3.9 UJ	NR	5.1 J	<2.5	<3.5	NR	NR	NR	NR
Beryllium	3	0.37	NR	0.60	NR	<0.20	NR	0.16	0.61U	<0.10	NR	NR	NR	NR
Chromium	50	96.6	NR	36.5	NR	1.4 UJ	NR	40.2	121	<6.6U	NR	NR	NR	NR
Copper	200	109	NR	13.7	NR	<0.50	NR	16.4	6.3	<3.4U	NR	NR	NR	NR
Iron	300	21600	NR	29400	NR	15400	NR	26000 J	18600	14700	NR	NR	NR	NR
Lead	15	34	NR	4.6	NR	<2.4	NR	6.3	<1.7	<2.6	NR	NR	NR	NR
Manganese	300	2100	NR	1050	NR	786	NR	966	683	1020	NR	NR	NR	NR
Mercury	0.7	0.34	NR	0.34	NR	<0.10	NR	0.76	0.14	<0.15U	NR	NR	NR	NR
Nickel	100	66.9	NR	26.7	NR	3.9	NR	29.1	86.8	4.0	NR	NR	NR	NR

Top of Screen Elevation: Unknown

Bottom of Screen Elevation: Unknown

Note: Volatile and metal concentrations presented in micrograms per liter; turbidity measurements presented in nephelometric turbidity units.

Elevations referred to mean sea level.

Since June 2004, monitoring wells have been sampled for VOC's only using the diffusion bag sampling method as per USEPA's request.

Diffusion bags were placed 1 ft above the bottom of the well.

NS: Not Sampled

NY Water Quality Criteria: NYSDEC Regulation for Surface Water and Groundwater, Section 703.5 (August 1999)

NP: No proposed quantification level available

NR: Not required

Boiled values exceed the NY Water Quality Criteria

Data presented from May 1993 and February 1994 is published in the Record of Decision (USEPA 1994).

These data provide a benchmark of pre-remediation conditions for the upgradient wells.

Data Qualifiers:

B: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

UJ: Compound is not detected and the associated quantitation limit is uncertain

R: Rejected during data validation

**Appendix A-3
Laboratory Summary Report (Validated)**

SUMMARY REPORT (Validated)
Lab: Hampton-Clarke, Inc. Vertitech Laboratories
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2006
Volatile Organics Results

Volatile (µg/L)	Sample ID CC-18-MW-1S-12 AC24482-001 07/12/2006	Lab Sample ID AC24482-002 07/12/2006	CC-18-MW-1D-12 AC24482-003 07/12/2006	CC-18-MW-3S-12 AC24482-004 07/12/2006	CC-18-MW-3D-12 AC24482-005 07/12/2006	CC-18-MW-4S-12 AC24482-006 07/12/2006	NY Water Quality Criteria
			CC-18-MW-1D-12 AC24482-003 07/12/2006	CC-18-MW-3D-12 AC24482-005 07/12/2006	CC-18-MW-4S-12 AC24482-006 07/12/2006	CC-18-MW-4D-12 AC24482-006 07/12/2006	
1,1 Dichloroethane	<0.28	1.4 J	<0.28	<0.34	<0.34	3.0 J	5
1,1 Dichloroethene	<0.40	4.8 J	<0.40	<0.53	<0.53	4.8 J	5
1,1,1 Trichloroethane	<0.43	<0.43	<0.43	<0.33	310	<0.33 UJ	5
1,1,2 Trichloroethane	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25 UJ	1
1,2 Dichloroethane (total)	<0.44	<0.44	<0.44	<0.40	<0.40	<0.40 UJ	5
1,2 Dichloroethane	<0.42	<0.42	<0.42	<0.21	<0.21	<0.21 UJ	5
2-Butanone	<0.92	<0.92	<0.92	<0.38	<0.38	<0.38 UJ	5
Acetone	<16 U	<16 U	<2.5 U	<2.7 U	<2.7 U	<2.7 UJ	NP
Carbon Disulfide	<0.62	<0.62	<0.62	<0.23	<0.23	<0.23 UJ	NP
Chlorobenzene	<0.29	<0.29	<0.29	<0.21	<0.21	<0.21 UJ	NP
Chloroform	<0.24	<0.24	<0.24	<0.42	<0.42	<0.42 UJ	7
Chloromethane	<0.64	<0.64	<0.64	<0.51	<0.51	<0.51 UJ	NP
Methylene Chloride	<0.91	<0.91	<0.91	<1.2 U	<1.4 U	<1.6 UJ	5
Tetrachloroethene	<0.35	<0.35	<0.35	<0.24	4.4 J	<0.24 UJ	5
Toluene	<0.31	<0.31	<0.31	1.0	<0.18	<0.18 UJ	5
Trichloroethene	<0.31	2.0 J	<0.31	<0.28	<0.28	2.8 J	5
TOTAL VOCs		ND	8.2	ND	1.0	314.4	10.6

NOTES:

Diffusion bags were deployed June 28, 2006 and were retrieved and sampled on July 12, 2006, except for MW-7D for which diffusion bag was deployed July 14 and retrieved on July 28, 2006.

ND: Not Detected

NP: No Proposed SPDES Permit available

<...: Laboratory Detection Limit

BOLD: Value exceeds the SPDES Permit

D: Results are reported for the diluted samples.

J: Indicates the compound was analyzed but not detected.

U: Indicates compound is detected at less than the specified detection limit.

UJ: Indicates compound is not detected and the associated quantitation limit is uncertain.

B: Indicates the analyte was found in the blank as well as in the sample.

E: Indicates the analyte concentration exceeds the calibration range of the instrument.

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999).

SUMMARY REPORT (Validated)
Lab: Hampton-Clarke, Inc. Veritech Laboratories
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2006
Volatile Organics Results

Volatile (µg/L)	Sample ID	CC-18-MW-5D-12	CC-18-MW-6S-12	CC-18-MW-6D-12	CC-18-MW-7S-12	CC-18-MW-13-12	CC-18-MW-14-12	NY Water Quality Criteria
	Lab Sample ID	AC24482-007	AC24482-008	AC24482-009	AC24482-010	AC24482-011	AC24482-012	07/12/2006
1,1 Dichloroethane	<0.34	3.0 J	<0.34 UJ	<0.34 UJ	<0.53 UJ	<0.53 UJ	<0.53 UJ	5
1,1 Dichloroethene	<0.53	7.8	<0.53 UJ	<0.53 UJ	<0.33 UJ	<0.33 UJ	<0.33 UJ	5
1,1,1 Trichloroethane	<0.33	5.8	<0.33 UJ	<0.33 UJ	<0.25 UJ	<0.25 UJ	<0.25 UJ	5
1,1,2 Trichloroethane	<0.25	<0.25	<0.25 UJ	1				
1,2 Dichloroethene (total)	<0.40	1.1 J	<0.40 UJ	<0.40 UJ	<0.21	<0.21	<0.40 UJ	5
1,2 Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.38 UJ	<0.38 UJ	<0.21	5
2-Butanone	<0.38	<0.38	<0.38	<0.38	<2.7 U	<2.7 U	<0.38 UJ	5
Acetone	<2.7 U	<2.7 U	<2.7 U	<2.7 U	<2.7 U	<2.7 U	<2.7 U	NP
Carbon Disulfide	<0.23	<0.23	<0.23	<0.23	<0.23 UJ	<0.23 UJ	<0.23 UJ	NP
Chlorobenzene	<0.21	<0.21	<0.21	<0.21	<0.21 UJ	<0.21 UJ	<0.21 UJ	NP
Chloroform	<0.42	<0.42	<0.42	<0.42	<0.42 UJ	<0.42 UJ	<0.42 UJ	7
Chloromethane	<0.51	<0.51	<0.51	<0.51	<0.51 UJ	<0.51 UJ	<0.51 UJ	NP
Methylene Chloride	<1.4 U	<1.4 U	<1.4 U	<1.4 U	<1.0 UJ	<1.0 UJ	<0.47 UJ	5
Tetrachloroethene	<0.24	<0.24	<0.24	<0.24	<0.24 UJ	<0.24 UJ	<0.24 UJ	5
Toluene	<0.18	<0.18	<0.18	<0.18	<0.18 UJ	<0.18 UJ	<0.18 UJ	5
Trichloroethene	<0.28	<0.28	<0.28	<0.28	<0.28 UJ	<0.28 UJ	<0.28 UJ	5
TOTAL VOCs	ND	ND	ND	ND	ND	ND	ND	ND
					25.3	ND	ND	1.3

NOTES:

Diffusion bags were deployed June 28, 2006 and were retrieved and sampled on July 12, 2006, except for MW-7D for which diffusion bag was deployed July 14 and retrieved on July 28, 2006.

ND: Not Detected

NP: No Proposed SPDES Permit Available

<...: Laboratory Detection Limit

BOLD: Value exceeds the SPDES Permit

D: Results are reported for the diluted samples.

U: Indicates the compound was analyzed but not detected.

J: Indicates an estimated value when a compound is detected at less than the specified detection limit.

UJ: Indicates compound is not detected and the associated quantitation limit is uncertain.

B: Indicates the analyte was found in the blank as well as in the sample.

E: Indicates the analyte concentration exceeds the calibration range of the instrument.

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999).

SUMMARY REPORT (Validated)
Lab: Hampton-Clarke, Inc. Veritech Laboratories
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2006
Volatile Organics Results

Volatile (µg/L)	Sample ID AC24482-013	Lab Sample ID AC24482-014	Sampling Date 07/12/2006	CC-18-MW-15-12	CC-18-MW-16-12	CC-18-MW-17-12	CC-18-MW-18-12	CC-18-MW-19S-12	CC-18-MW-19D-12	NY Water Quality Criteria AC24482-018 07/12/2006
				AC24482-015	07/12/2006	AC24482-016	07/12/2006	AC24482-017	07/12/2006	
1,1, Dichloroethane	<0.38	<0.38		<0.38	<0.38	<0.44	<0.44	<0.44	<0.28	5
1,1, Dichloroethene	<0.29	<0.29		<0.29	<0.29	<0.47	<0.47	<0.47	<0.40	5
1,1,1 Trichloroethane	<0.53	<0.53		<0.53	<0.53	<0.37	<0.37	<0.37	<0.43	5
1,1,2 Trichloroethane	<0.44	<0.44		<0.44	<0.44	<0.84	<0.84	<0.84	<0.25	1
1,2 Dichloroethene (total)	<0.47	<0.47		<0.47	<0.47	<0.84	<0.84	<0.84	<0.44	5
1,2 Dichloroethane	<0.37	<0.37		<0.37	<0.37	<2.8 U	<2.8 U	<2.8 U	<0.42	5
2-Butanone	<0.84	<0.84		<0.84	<0.84	<2.8 U	<2.8 U	<2.8 U	<0.92	5
Acetone	<2.8 U	<2.8 U		<2.8 U	<2.8 U	<0.18	<0.18	<0.18	<2.8 U	NP
Carbon Disulfide	<0.18	<0.18		<0.18	<0.18	<0.089	<0.089	<0.089	<0.62	NP
Chlorobenzene	<0.089	<0.089		<0.089	<0.089	<0.93	<0.93	<0.93	<0.29	NP
Chloroform	<0.93	<0.93		<0.93	<0.93	<0.74	<0.74	<0.74	<0.24	7
Chloromethane	<0.74	<0.74		<0.74	<0.74	<2.1 U	<2.1 U	<2.1 U	<0.74	NP
Methylene Chloride	<2.3 U	<2.3 U		<2.3 U	<2.3 U	<1.5 U	<1.5 U	<1.5 U	<2.0 U	5
Tetrachloroethene	<0.50	<0.50		<0.50	<0.50	<0.32	<0.32	<0.32	<0.35	20
Toluene	<0.32	<0.32		<0.32	<0.32	<0.38	<0.38	<0.38	<0.31	5
Trichloroethene	<0.38	<0.38		<0.38	<0.38	ND	ND	ND	ND	31
TOTAL VOCs						ND	ND	ND	ND	280.8

NOTES:

Diffusion bags were deployed June 26, 2006 and were retrieved and sampled on July 12, 2006, except for MW-7D for which diffusion bag was deployed July 14 and retrieved on July 28, 2006.

ND: Not Detected

NP: No Proposed SPDES Permit Available

<..: Laboratory Detection Limit

BOLD: Value exceeds the SPDES Permit

D: Results are reported for the diluted samples.

U: Indicates the compound was analyzed but not detected.

J: Indicates an estimated value when a compound is detected at less than the specified detection limit.

UJ: Indicates compound is not detected and the associated quantitation limit is uncertain.

B: Indicates the analyte was found in the blank as well as in the sample.

E: Indicates the analyte concentration exceeds the calibration range of the instrument.

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999).

SUMMARY REPORT (Validated)
Lab: Hampton-Clarke, Inc. Veritech Laboratories
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2006
Volatile Organics Results

Volatile (µg/L)	Sample ID	CC-1B-MW-19D-12-3	CC-1B-MW-7D-12	FIELD BLANK	TRIP BLANK	NY Water Quality Criteria
	Lab Sample ID	AC24482-019	AC24755-001	AC24482-020	AC24482-021	
	Sampling Date	07/12/2006	07/27/2006	07/12/2006	07/12/2006	
1,1,1, Trichloroethane	70	<0.28	<0.28	<0.28	<0.28	5
1,1,2 Trichloroethane	60	<0.40	<0.40	<0.40	<0.40	5
1,1-Dichloroethane	2.6 J	<0.43	<0.43	<0.43	<0.43	5
1,2-Dichloroethene (total)	<0.25	<0.25	<0.25	<0.25	<0.25	5
1,2-Dichloroethane	4.6 J	<0.44	<0.44	<0.44	<0.44	5
2-Butanone	1.2 J	<0.42	<0.42	<0.42	<0.42	5
Acetone	<0.92	<0.92	<0.92	<0.92	<0.92	5
Acetone Disulfide	<2.5 U	<2.5	17	<2.5	<2.5	NP
Chlorobenzene	<0.62	<0.62	<0.62	<0.62	<0.62	NP
Chloroform	<0.29	<0.29	<0.29	<0.29	<0.29	NP
Chloromethane	4.8 J	<0.24	<0.24	<0.24	<0.24	7
Methylene Chloride	<0.64	<0.64	<0.64	<0.64	<0.64	NP
Tetrachloroethene	<0.91	<0.91	<0.91	<0.91	<0.91	5
Toluene	15	<0.35	<0.35	<0.35	<0.35	5
Trichloroethene	<0.31	<0.31	<0.31	<0.31	<0.31	5
TOTAL VOCs		181.2	ND	17	ND	

NOTES:

Diffusion bags were deployed June 28, 2006 and were retrieved and sampled on July 12, 2006, except for MW-7D for which diffusion bag was deployed July 14 and retrieved on July 28, 2006.

ND: Not Detected

NP: No Proposed SPDES Permit available

<...: Laboratory Detection Limit

BOLD: Value exceeds the SPDES Permit

D: Results are reported for the diluted samples.

J: Indicates an estimated value when a compound is detected at less than the specified detection limit.

UJ: Indicates compound is not detected and the associated quantitation limit is uncertain.

B: Indicates the analyte was found in the blank as well as in the sample.

E: Indicates the analyte concentration exceeds the calibration range of the instrument.

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999).

SUMMARY REPORT (Validated)
Lab: Hampton-Clarke, Inc. Veritech Laboratories
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2006
Low Flow Sampling Results

	Sample ID Lab Sample ID Sampling Date	CC-18-MW-1S-12-LF AC24482-022 07/12/2006	CC-18-MW-4S-12-LF AC24482-024 07/12/2006	CC-18-MW-13-12-LF AC24482-026 07/12/2006
Inorganics (µg/L)				
Iron (Ferrous)	15000	<100	<100	290
Iron (Total)	2400	<100	<100	<100
Wet Chemistry				
Alkalinity (mg CaCO ₃ /L)	370	110	90	90
Chloride (mg/L)	75	26	49	49
Nitrate (mg/L)	0.61	0.54	<0.27	<0.27
Sulfate (mg/L)	57	20	10	10
Sulfide (Total) (mg/L)	2	<2	<2	<2
Total Organic Carbon (mg/L)	<1.0	1.6	3.9	3.9
Organics (µg/L)				
Methane	1690	10.4	14.5	14.5
Ethane	2.0	2.0	2.0	2.0
Ethene	2.0	2.0	2.0	2.0

NOTES:

Low flow samples were collected on July 12, 2006

- ND: Not Detected
- NP: No Proposed SPDES Permit available
- <...: Laboratory Detection Limit
- BOLD: Value exceeds the SPDES Permit
- D: Results are reported for the diluted samples.
- U: Indicates the compound was analyzed but not detected.
- J: Indicates an estimated value when a compound is detected at less than the specified detection limit.
- UJ: Indicates compound is not detected and the associated quantitation limit is uncertain.
- B: Indicates the analyte was found in the blank as well as in the sample.
- E: Indicates the analyte concentration exceeds the calibration range of the instrument.
- NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 703.5 (August 1999).

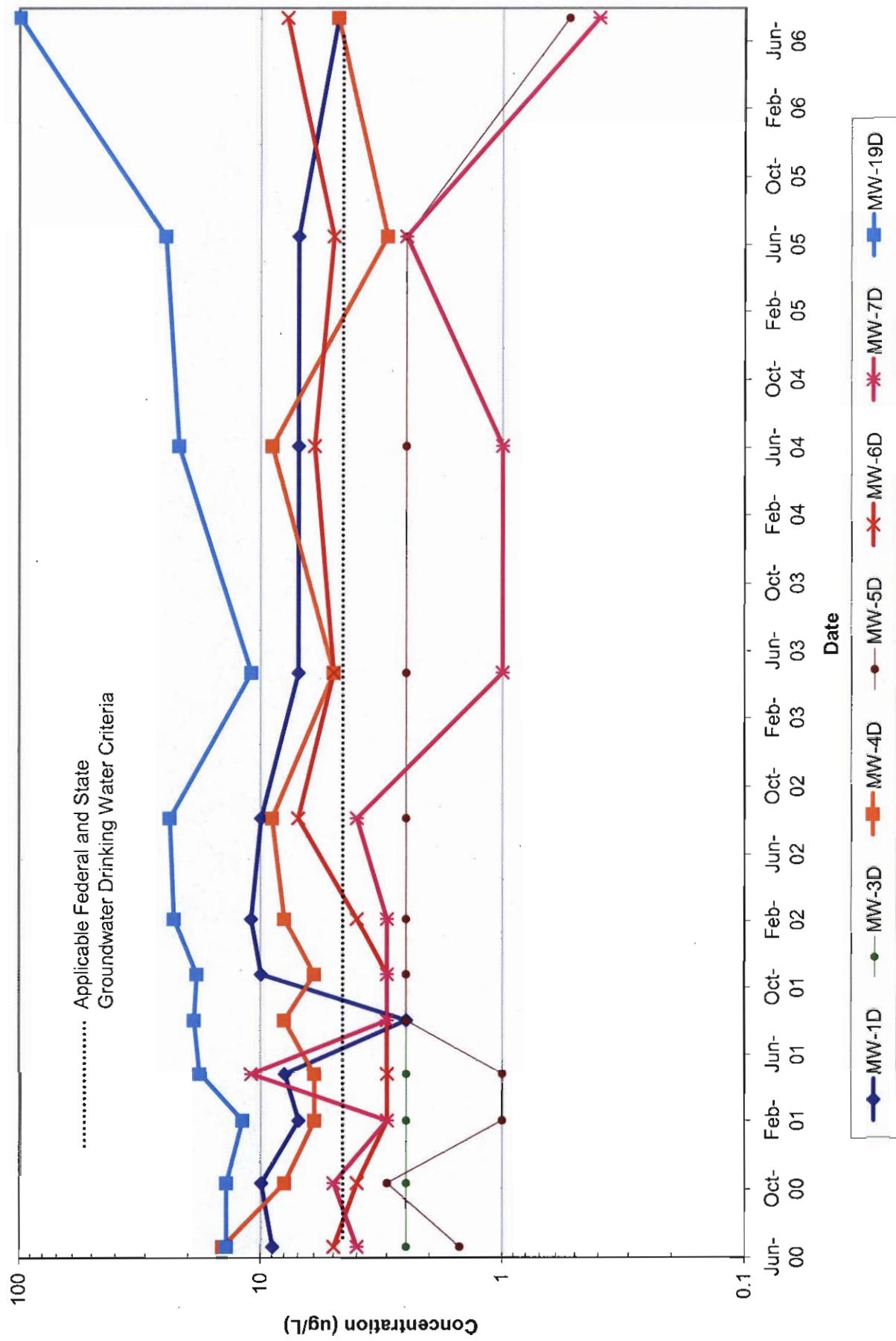
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Appendix B

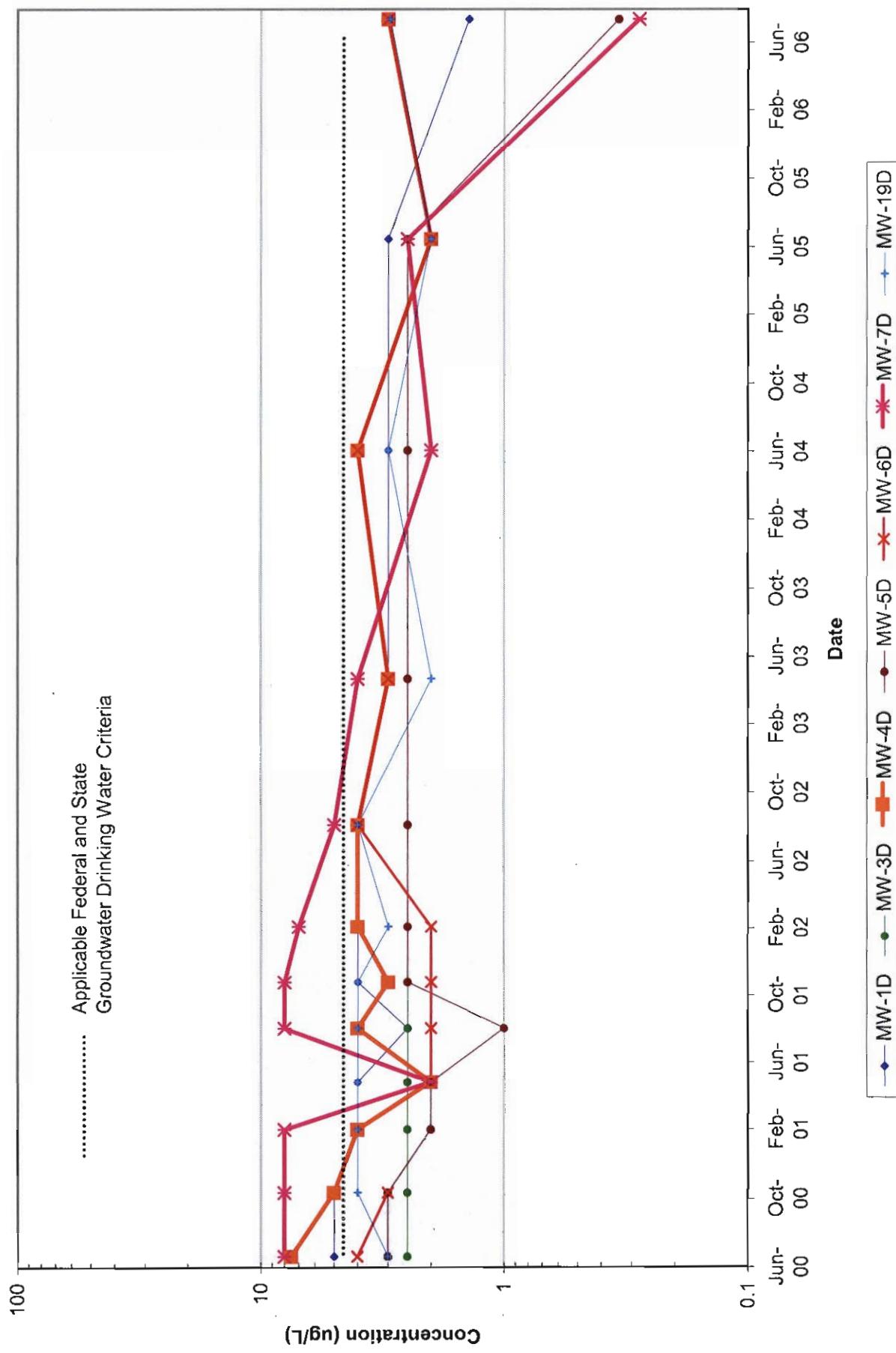
Appendix B

Time-Series Geochemical Graphs for Deep & Shallow Wells

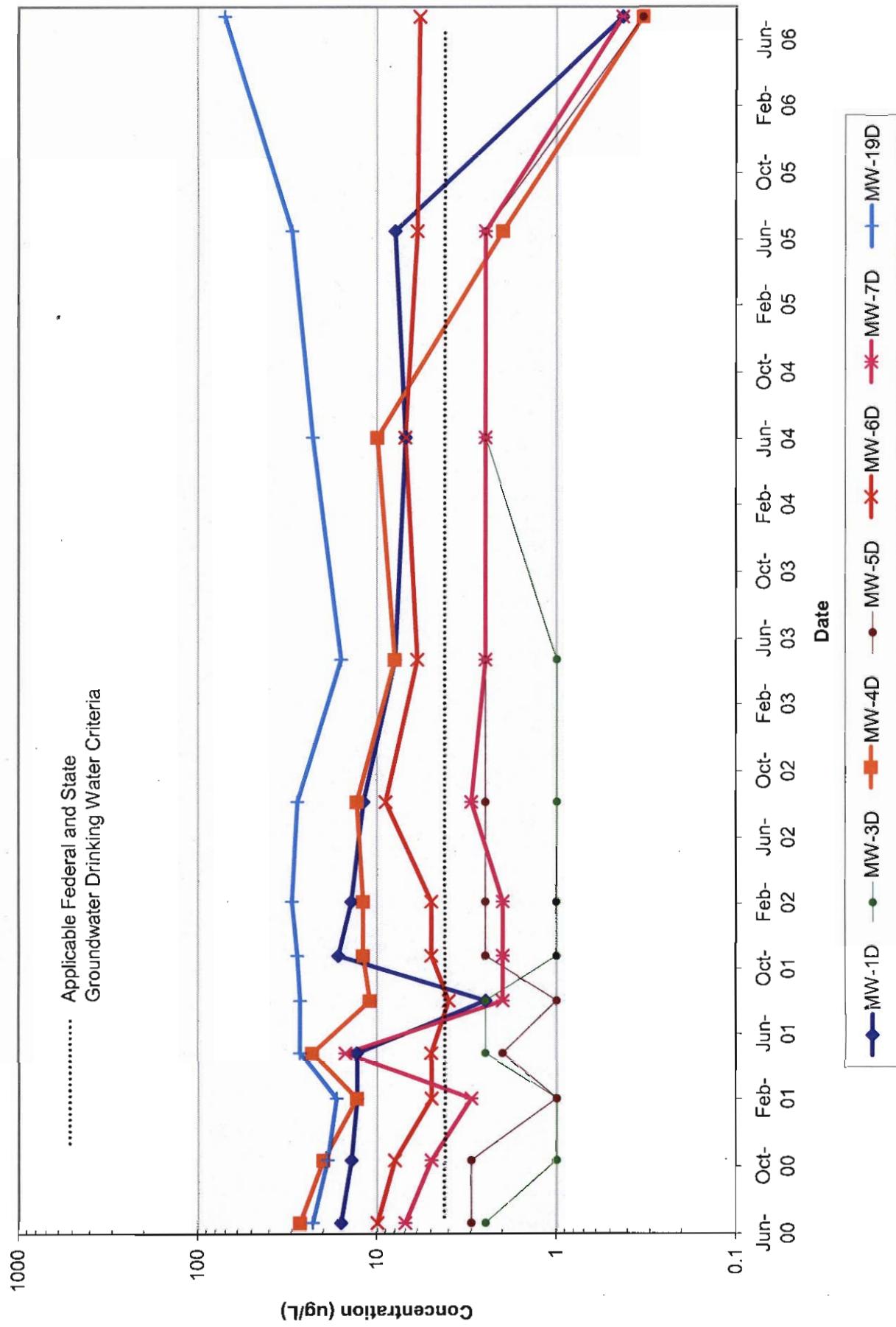
1,1-Dichloroethene Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



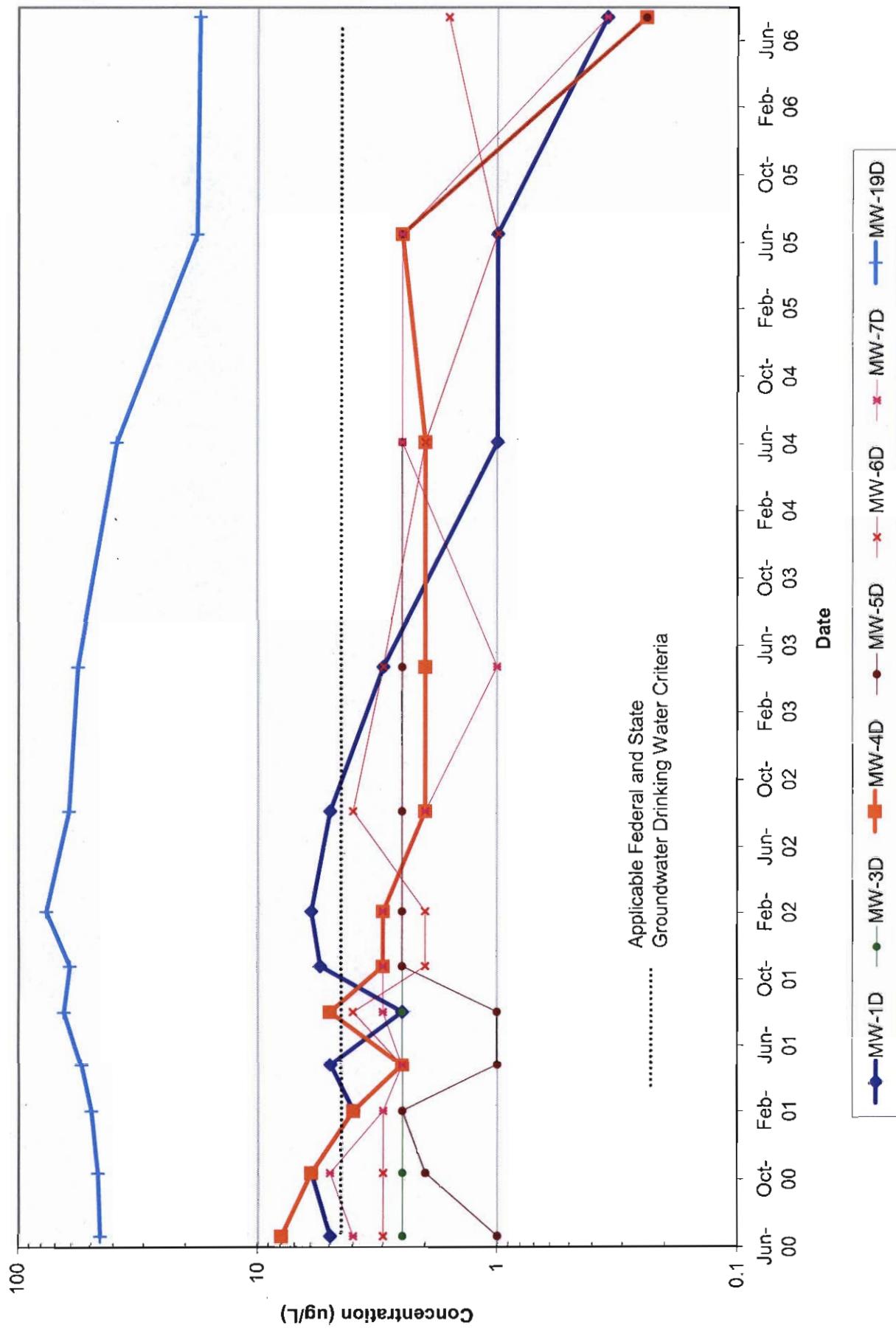
1,1-Dichloroethane Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



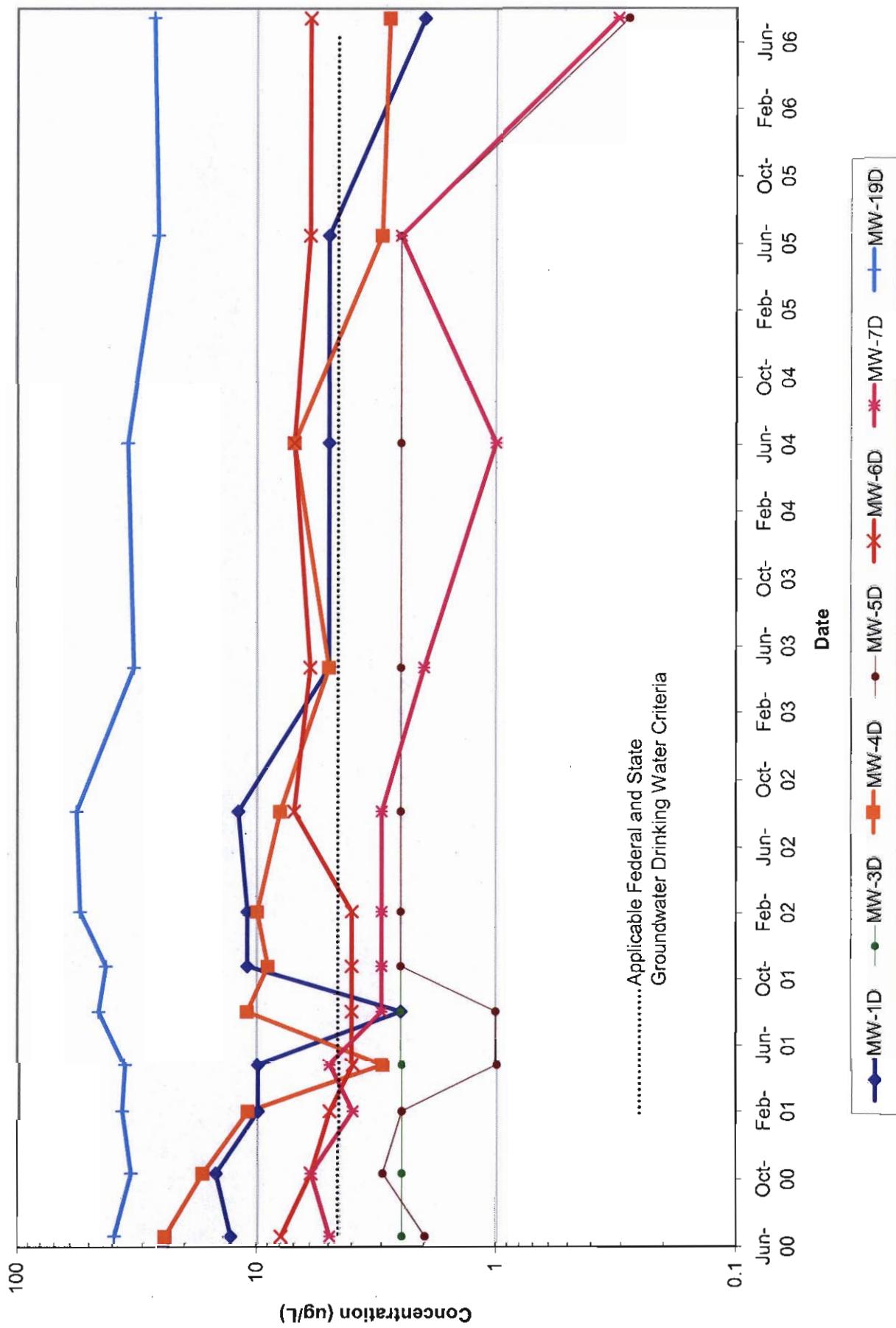
1,1,1-Trichloroethane Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



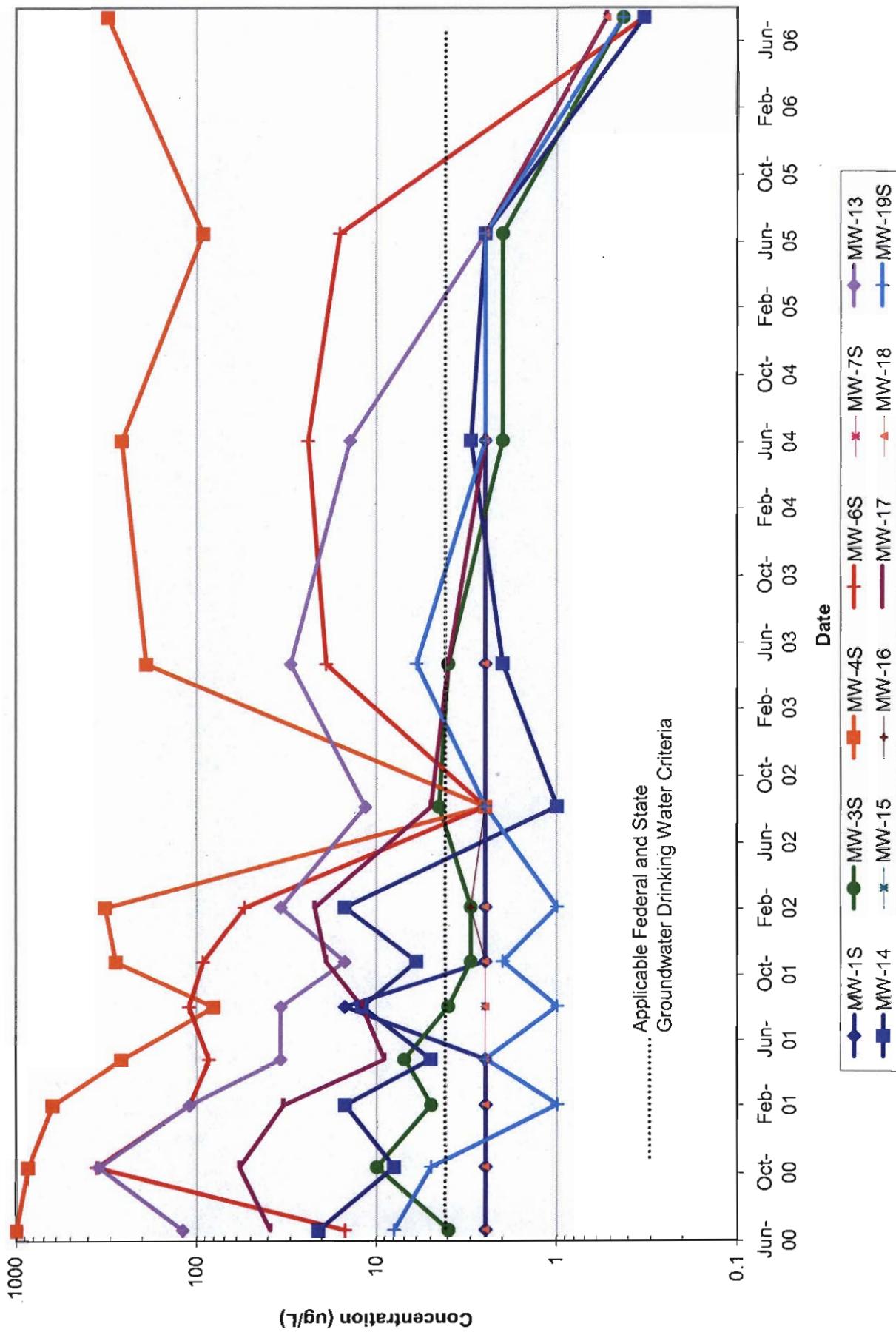
Tetrachloroethene Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



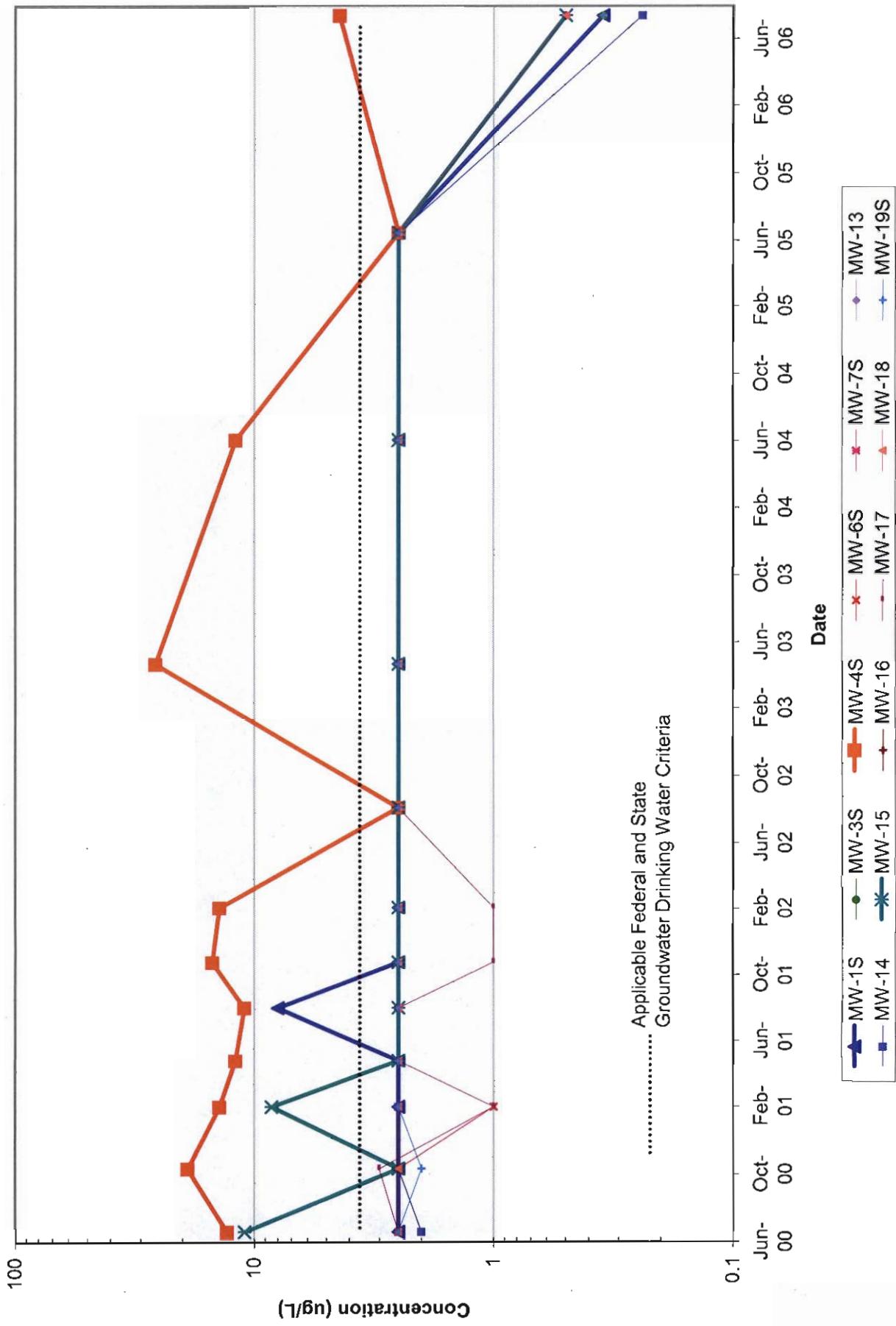
Trichloroethene Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



1,1,1-Trichloroethane Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



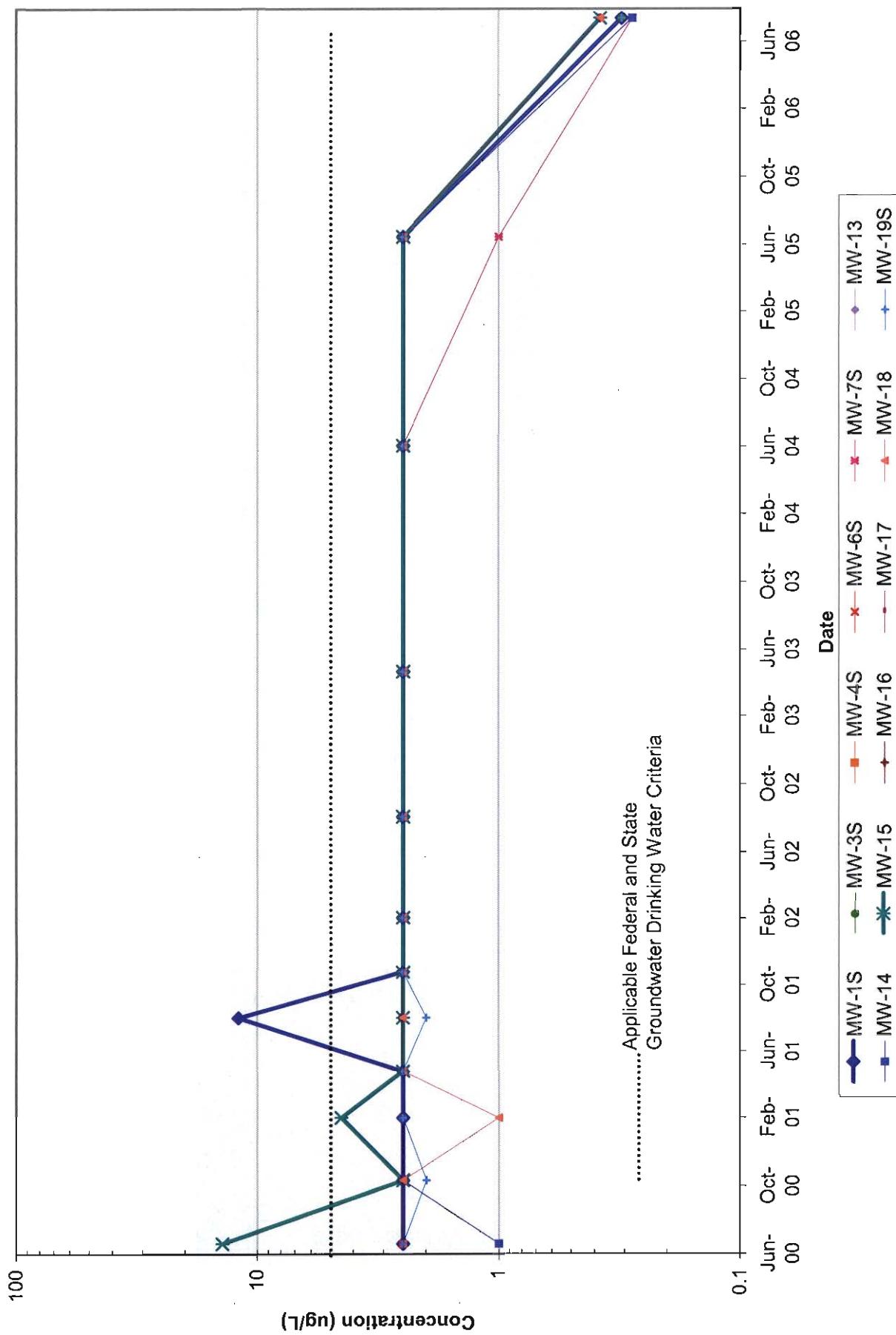
Tetrachloroethene Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



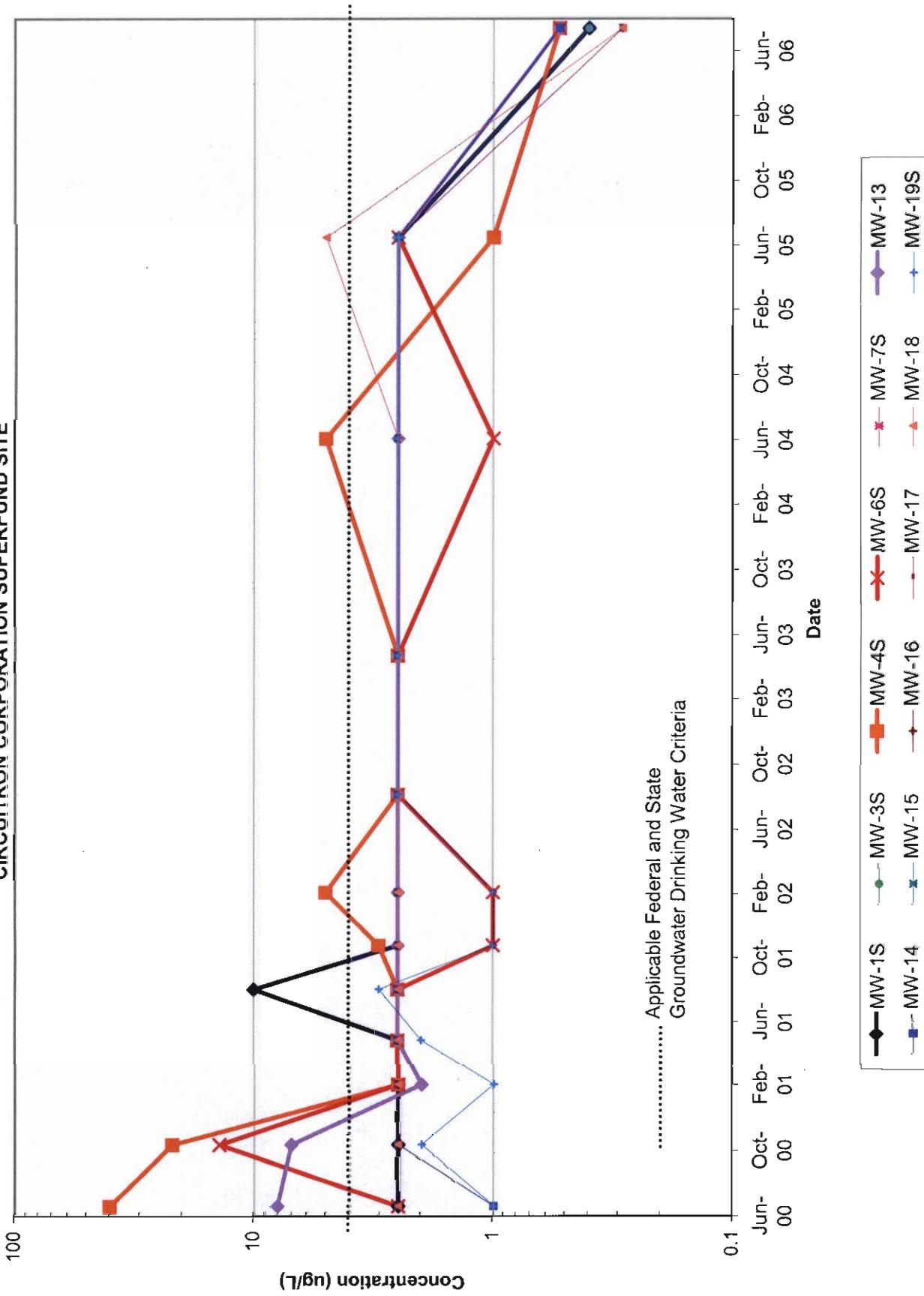
Trichloroethylene Time-Series Graph

Shallow Wells

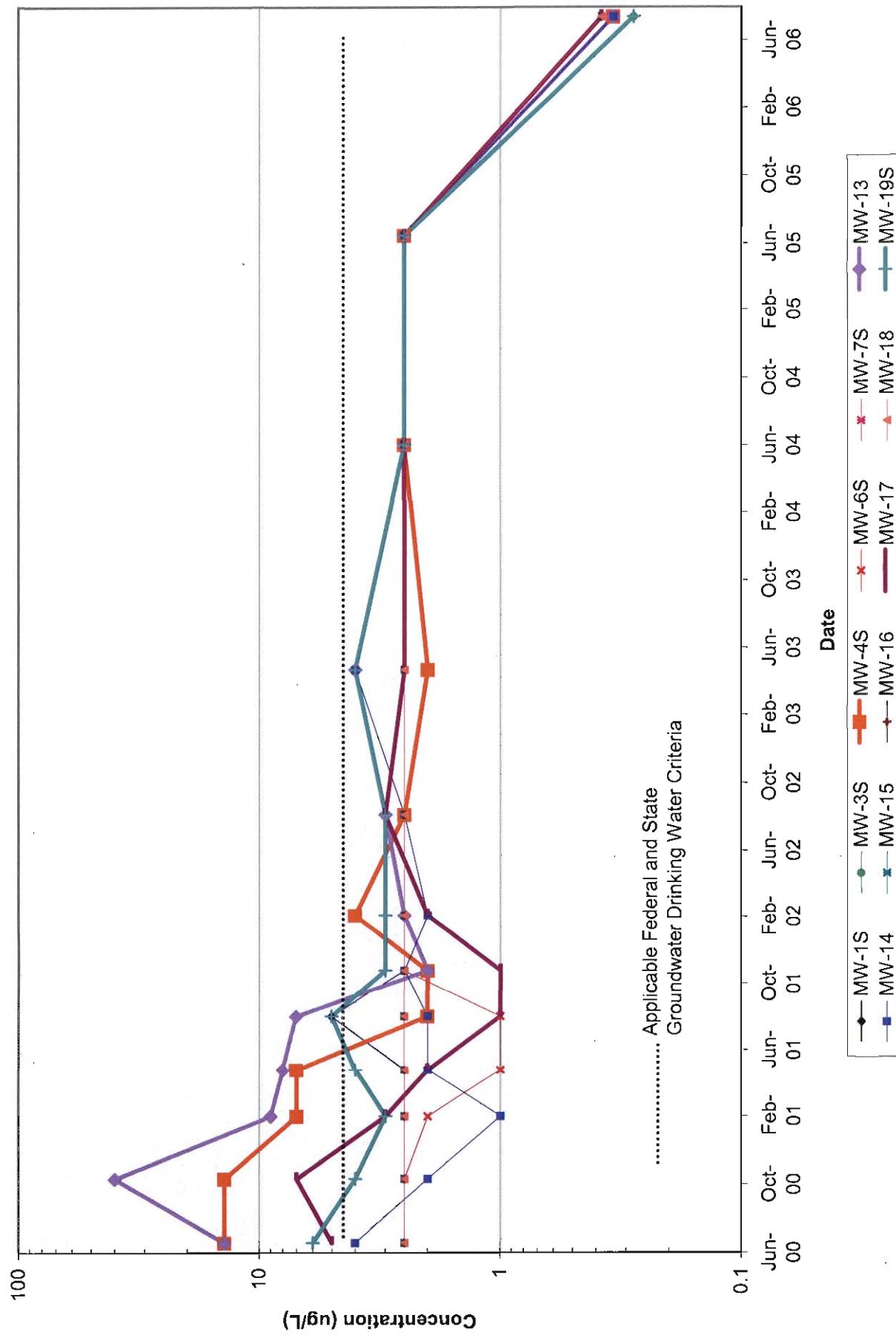
CIRCUITRON CORPORATION SUPERFUND SITE



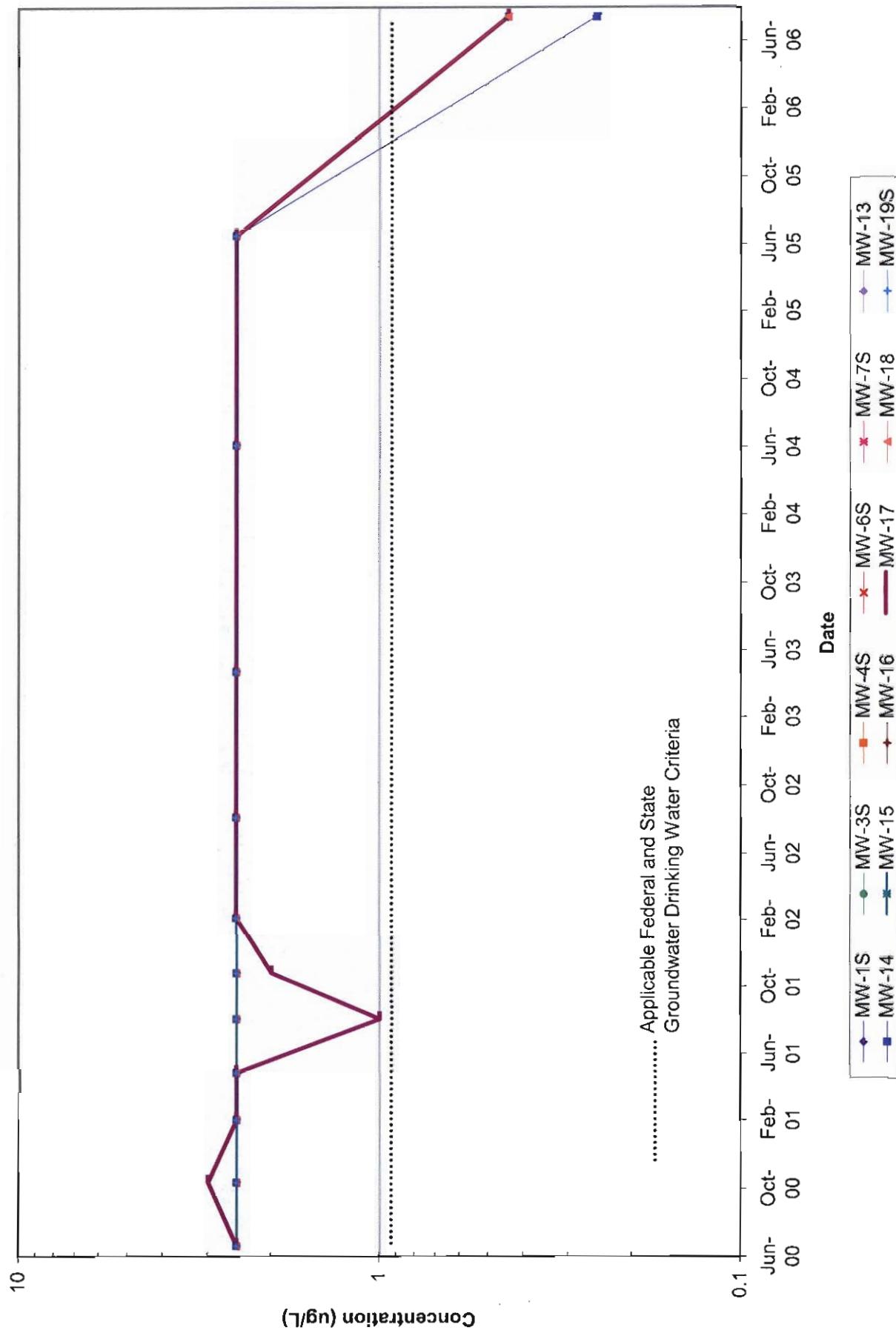
1,1-Dichloroethene Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



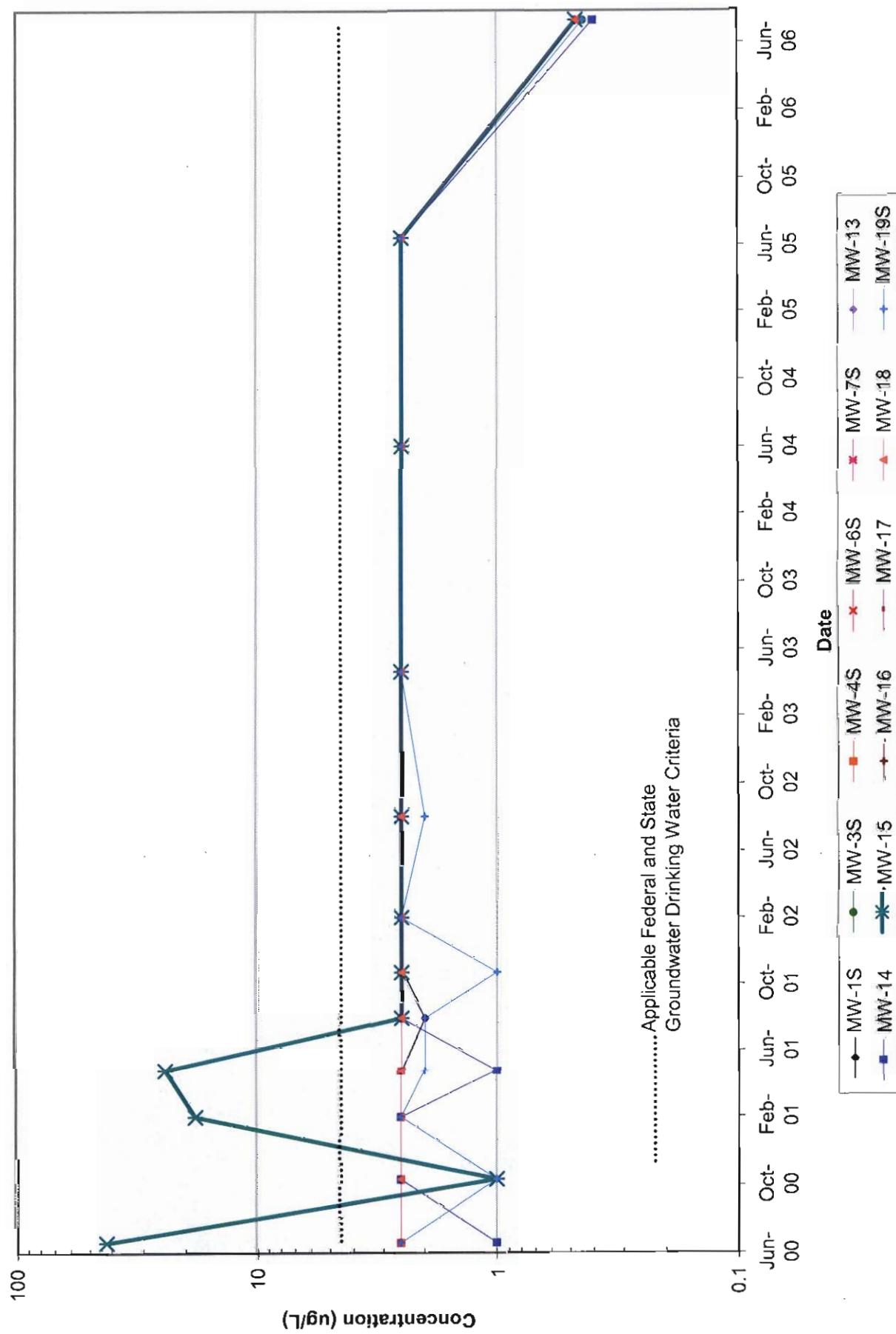
1,1-Dichloroethane Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



1,1,2 Trichloroethane Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



1,2 Dichloroethene (total) Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE

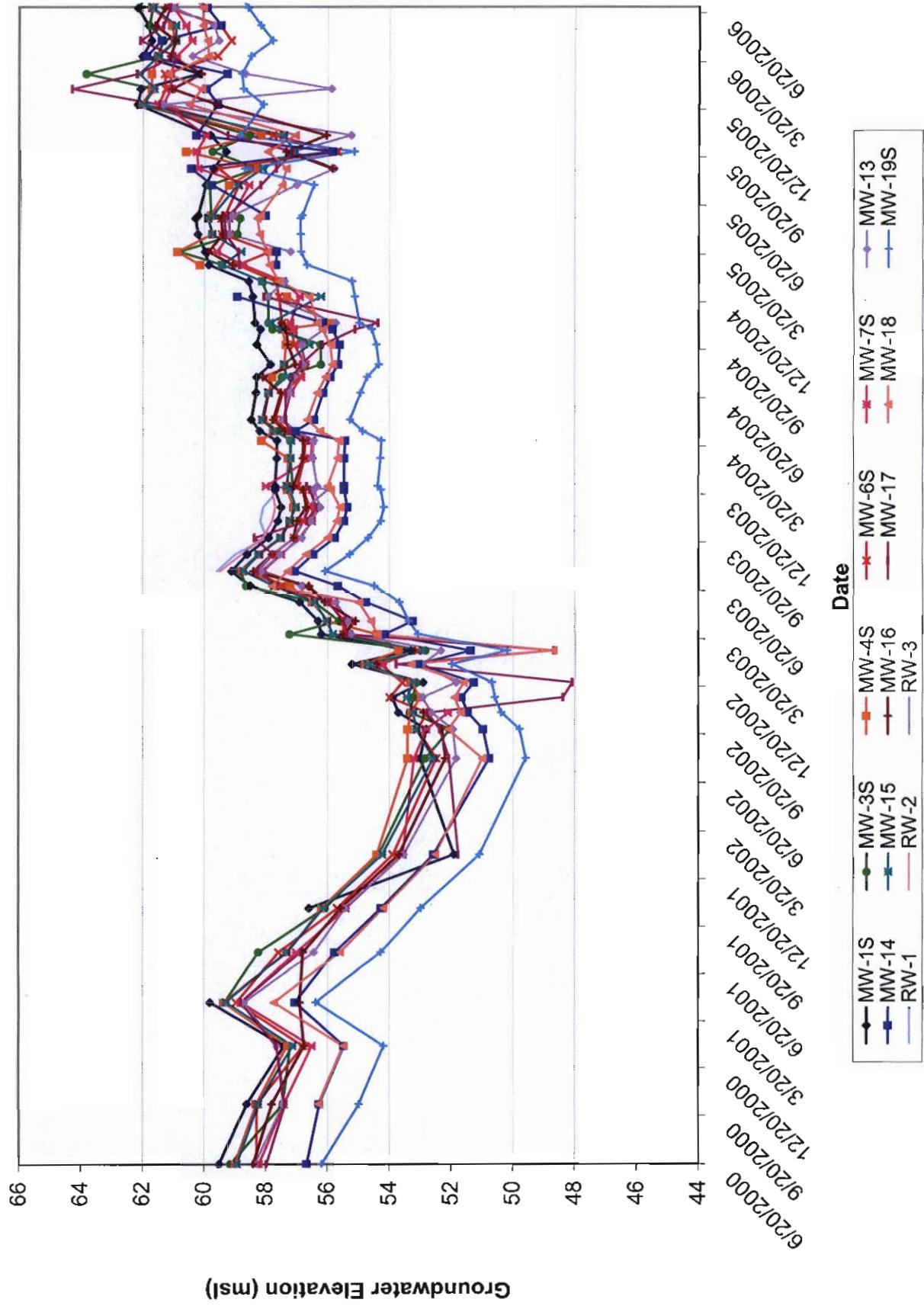




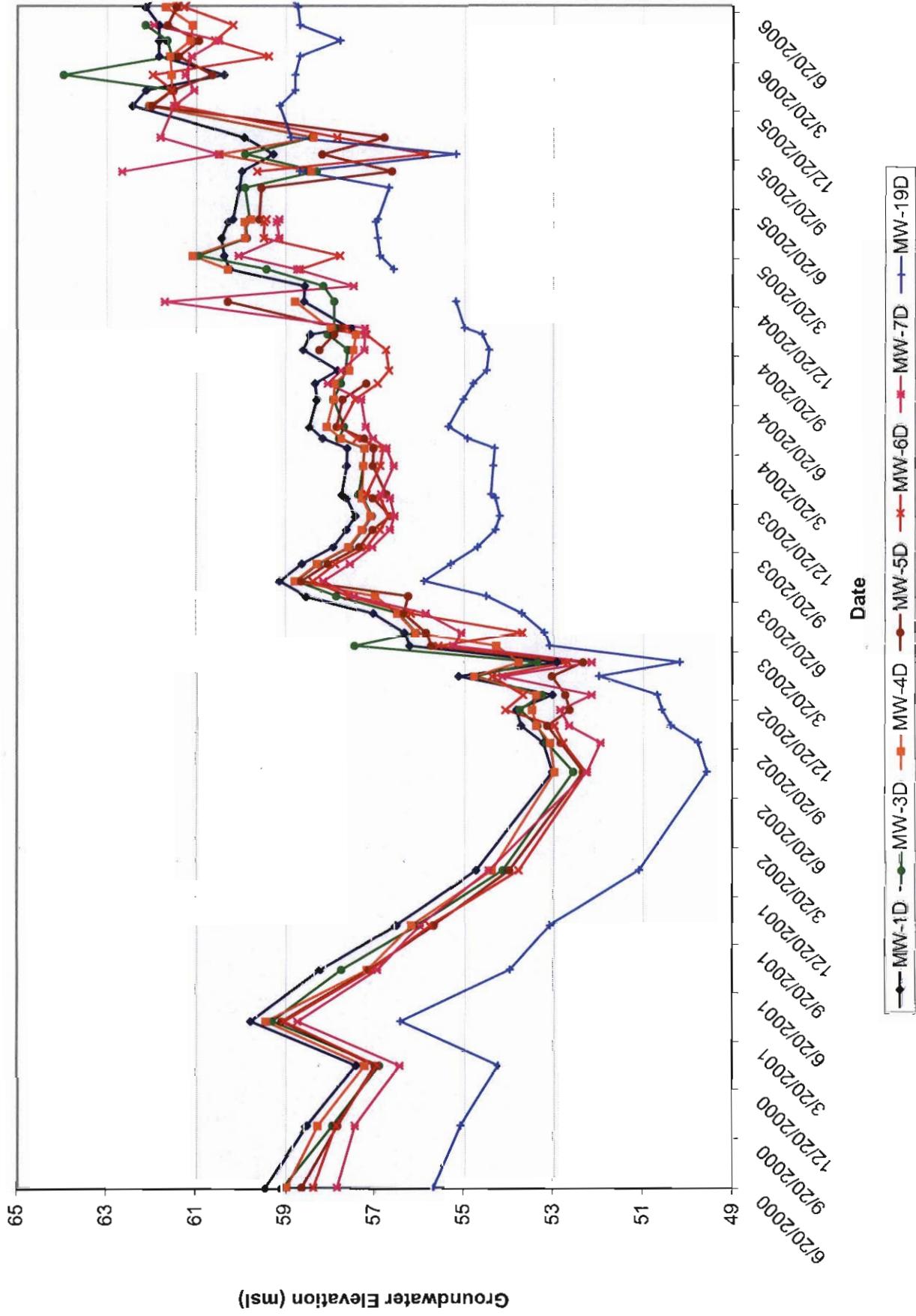
Appendix C
Hydrographs for Deep & Shallow Wells

Hydrograph of Shallow Wells

CIRCUITRON CORPORATION SUPERFUND SITE



Hydrograph of Deep Wells CIRCUITRON CORPORATION SUPERFUND SITE



URS