

**2008 ANNUAL PERFORMANCE
MONITORING REPORT**

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

Prepared for
USACE, New York

Contract No. W9128F-04-D-0001
Delivery Order No. DH02

December 2008

URS

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2008 Annual Performance Monitoring Report**

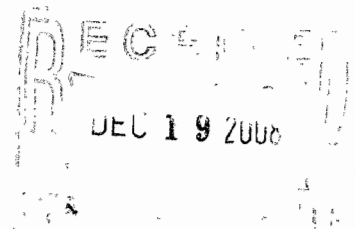
Please find enclosed your copy of the 2008 Annual Performance Monitoring Report, for the above referenced Site, prepared by URS in accordance with the terms outlined in the scope of work for the current contract mod (W9128F-04-D-0001-DH02 Year 1). This report provides an evaluation of the 2008 monitoring well sampling results and water levels obtained through the July 2008 Performance Monitoring Period.

Please do not hesitate to contact Mr. Doug Gray directly via phone at 216-622-2283 or via e-mail at doug_gray@urscorp.com if you have any questions.

Very truly yours,

Steven Stinger
Senior Scientist

cc: Mr. Doug Gray – URS, Cleveland, OH



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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)
bgs	below ground surface
FFS	Focused Feasibility Study
FID	Flame Ionization Detector
GAC	Granular Activated Carbon
GC/MS	Gas chromatograph/mass spectrometer
gpm	Gallons per minute
µg/kg	Micrograms per kilogram
µg/l	Micrograms per liter
O&M	Operation and Maintenance
OU-2	Operable Unit Two
PCE	Tetrachloroethene
PLC	Programmable Logic Controller
RCRA	Resource Conservation Recovery Act
REAC	Response Engineering and Analytical Contract
ROD	Record of Decision
SVE	Soil Vapor Extraction
TCE	Trichloroethene
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1.0 INTRODUCTION

This is the 2008 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 through July 2008, in accordance with the selected remedy for the site as described in the Record of Decision (ROD) (United States Environmental Protection Agency [USEPA], 1994) for Operable Unit Two (OU-2). The attached report is prepared annually to incorporate new performance monitoring data. Since metals analysis was eliminated after the 2003 sampling event, this report does not contain all 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 presents 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 site (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, as well as in 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 overall treatment system. Specifically, modeling was used to determine the placement and pumping rates of proposed groundwater 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) groundwater extraction wells pumping at a total rate of 80 gallons per minute (gpm), groundwater treatment system, and treated groundwater re-injection into an infiltration gallery located at the northern (upgradient) end of the site. The system was placed into operation on 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 and are not provided herein.

Both URS and the USEPA concurred that extraction well RW-3 could be shut off in 2005 and that prior to shutdown of RW-3, groundwater from all three of the extraction wells

would be sampled. The analysis showed that with the exception of 1,1-dichloroethane (1,1-DCA) and 1,1,1-TCA, all volatile organic compounds (VOCs) were below method detection limits in groundwater obtained from extraction wells RW-1, -2 and -3. 1,1-DCA was detected in well RW-2 at 19 micrograms per liter ($\mu\text{g/l}$), and 1,1,1-TCA was detected at 4 $\mu\text{g/l}$ in well RW-1, at 18 $\mu\text{g/l}$ in well RW-2, and at 3 $\mu\text{g/l}$ in well RW-3. Based on these results, USEPA agreed that RW-2 should not be turned off.

The groundwater modeling performed by URS, in 2005, evaluated several pump scenarios, the first with wells RW-1 and RW-2 pumping, RW-3 shut down, and the second with only well RW-1 pumping. The resulting capture zones were compared to the current area where concentrations of 1,1,1-TCA exceed the groundwater drinking standard of 5 $\mu\text{g/L}$. The modeling concluded that the capture zone created by wells 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 current groundwater extraction system 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 groundwater 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-foot long ASTM-A-304 stainless steel screen connected to ASTM-A-304 Schedule 40 stainless steel riser. The base 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. The results of the 2005 modeling indicate that the combined flow rate of the two extraction wells should be operated at a total flowrate of 40 gpm. Each extraction well is pumped intermittently based on water levels in the extraction wells and the water levels in both the equalization tank and in the building sump inside the groundwater treatment plant building. On August 22, 2007, the groundwater treatment plant was mothballed as per directive of the USEPA. Since implementing the 2007 USEPA directive, URS has been operating the system once (for a period of four to six hours) every two weeks.

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 top portion of the Upper Glacial Aquifer that are 34 to 40 feet deep.

Deep wells are those wells screened in the lower portion of the 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 from June 2000 to July 2008, water level data and groundwater quality data has been 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 VOCs and semi-annually for inorganic analyses. In 2003, the monitoring well sampling frequency was reduced to annual sampling for both 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 groundwater sampling method was also changed from the low-flow method to the diffusive bag method. These data continue to be used to assess the performance of the OU-2 remedy and are discussed further in Sections 3 and 4 of this report.

Since August 2007, monthly well gauging has not been conducted. The annual groundwater sampling program continues and the water levels are measured from each well before sampling. The annual performance monitoring report will be prepared yearly by URS.

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 additional evaluations. 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 micron size of the filter bags was subsequently increased from 10 microns to 100 microns. In general, the results indicated reduction in the frequency of the filter bag changes and also resulted in no major decrease in the pH of the effluent. However, acetone was detected in the effluent during the months after citric acid was introduced into the system.

With the success of the citric acid came the fouling of the re-injection trench. The Project Team decided that the best solution was to waterjet the trench 3-4 times a year and treat the re-injection trench with liquid citric acid on an as-needed basis. This method continued until the mothballing of the groundwater treatment system in August 2007.

1.5 Summary of Investigation of Chlorinated Source

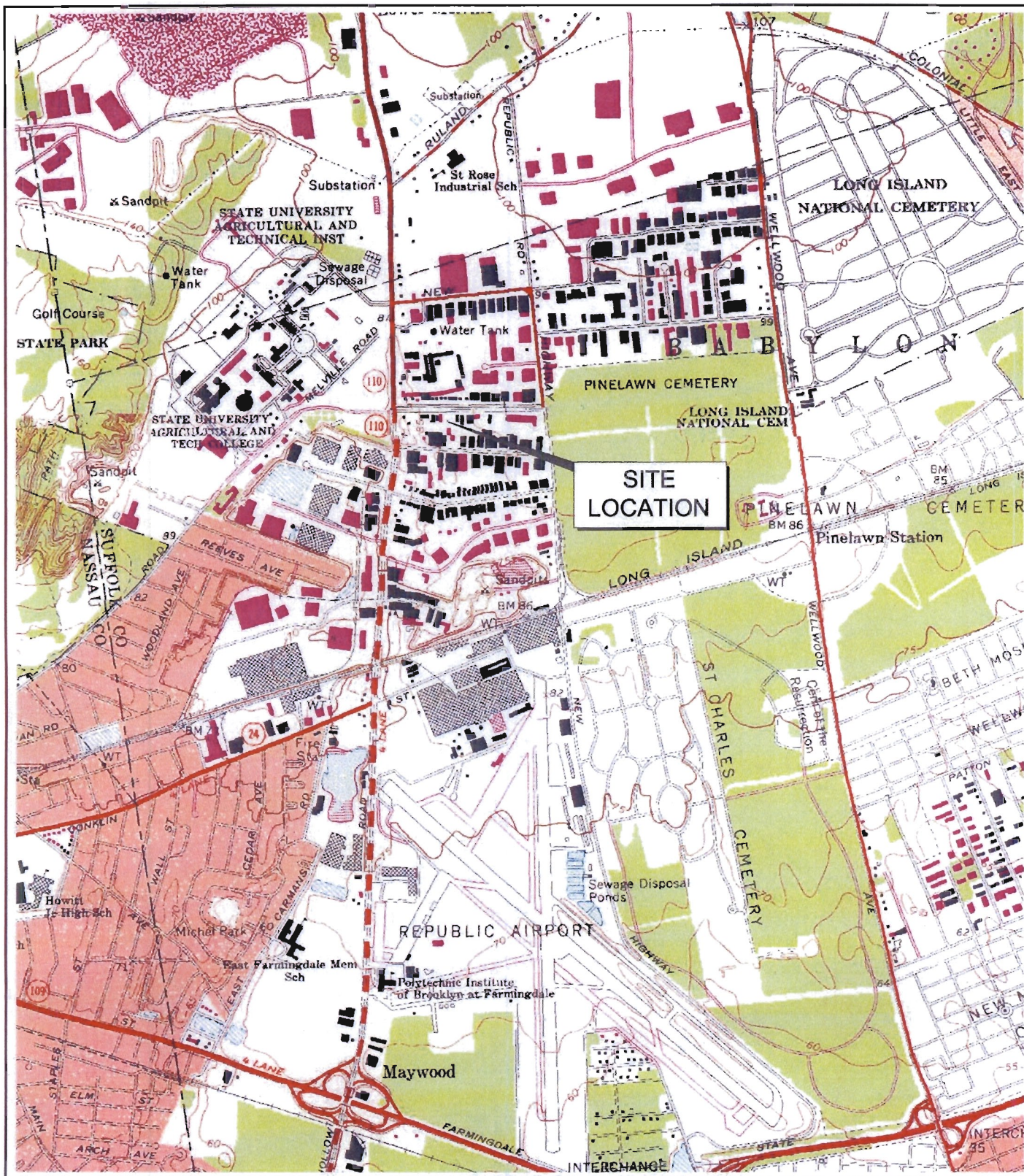
Response Engineering and Analytical Contract (REAC) personnel provided technical assistance to EPA Region II and performed an investigation of the unsaturated/saturated zone in the southwestern corner of the Circuitron site, near wells MW-4S and MW-4D. The objective of the REAC investigation was to determine 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 direct push to install and sample 40 soil borings and 22 temporary monitoring wells located 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 the VOC Target Compound List, which included trichloroethylene (TCE) and tetrachloroethylene (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 feet bgs). Groundwater was obtained using disposable bailers from each of these 22 wells plus existing wells MW-1S, -1D, -4S and -4D. 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 1,1,1-TCA dissolved in groundwater surrounding well MW-4S, with a maximum 1,1,1-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 located approximately 50 feet north of well MW-4S, with a maximum concentration of 150 µg/l from temporary well R3.
- c) An approximate 15-20 foot diameter area of soil, generally centered around well MW-4S, where 1,1,1-TCA has been detected with a maximum soil concentration of 21,900,000 µg/kg at a depth of 15 feet 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.

USEPA and its contractor, under a separate contract, installed a soil vapor extraction (SVE) system for a pilot study in August 2007. During this pilot study, the existing groundwater extraction and treatment system have been operated for approximately four to six hours every two weeks.



MAP SOURCE:

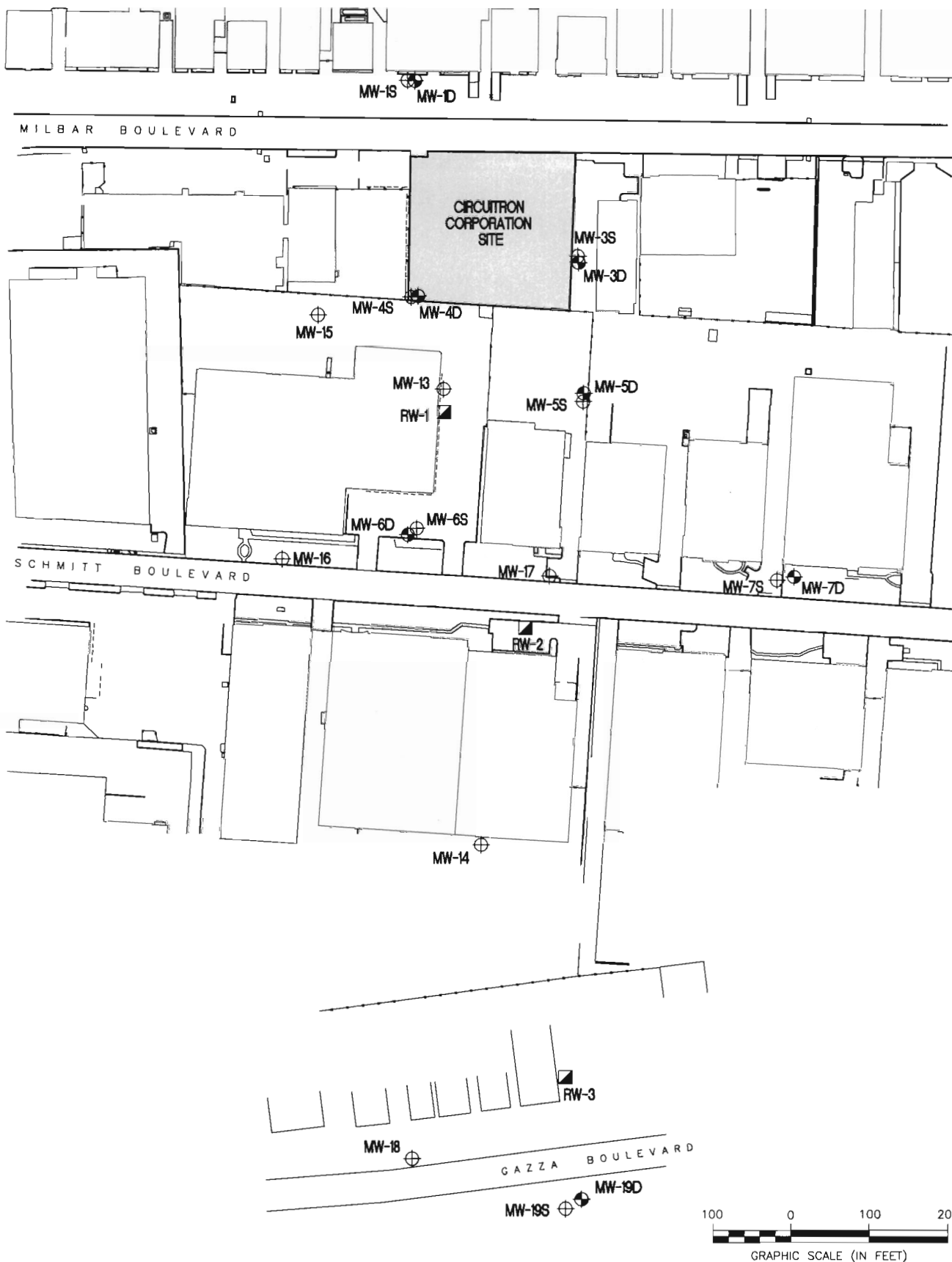
U.S.G.S. 7.5 MINUTE SERIES QUADRANGLES OF HUNTINGTON, N.Y., DATED 1967, PHOTOREVISED 1979 AND AMITTYVILLE, N.Y. DATED 1969, PHOTOREVISED 1979.

**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

URS

FILENAME: FIG 1-2.DWG

DATE: 4-29-03

FIGURE #: 1-2

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, extending from January 1999 to July 2008. 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 also being monitored for changes in groundwater chemistry over time; therefore, time-series graphs were prepared for wells screened within these zones. However, the overall effectiveness of the remediation system is based solely on the results in the Upper Glacial Aquifer, as described in the ROD (USEPA, 1994).

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 groundwater obtained from 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 operating extraction wells, as indicated by groundwater elevation contour maps prepared under pumping conditions. Additional details related to this assessment are presented in Section 3.

2.2 GROUNDWATER QUALITY

Groundwater quality was evaluated by preparing isoconcentration maps and geochemical time-series graphs from the groundwater 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 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, July 2006, August 2007 and July 2008 sampling events for various VOCs and inorganic analytes for groundwater obtained from the Upper Glacial 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 since June 2005. The bag was placed at one foot above the bottom of the well.

Previous data were submitted to the USEPA and United States Army Corps of Engineers (USACE) as part of the O&M Monthly Progress Reports for the site. Comparison of the isoconcentration maps to 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 groundwater quality trends over time in 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 as these wells are also included in the Performance Monitoring program. However, it is noted that the assessment of the OU-2 remedy is solely based on the results from the shallow Upper Glacial Aquifer.

3.0 GROUNDWATER FLOW

Water levels 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 start-up 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 continued to be collected monthly through June 2006, after which groundwater level data was collected quarterly at the request of the USEPA.

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), June 2006 (Figure 3-1g), July 2007 (Figure 3-1h) and July 2008 (Figure 3-1i) 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, June 2006, July 2007 and July 2008 are presented in Figures 3-2, 3-3, 3-4, 3-5, 3-6, 3-7 and 3-8 respectively. Figures 3-5, 3-6, 3-7 and 3-8 illustrate that in June 2005, June 2006, July 2007 and July 2008 only two extraction wells are pumping in the Upper Glacial Aquifer. It is also noted that during July 2008, the groundwater extraction system was not operating. Groundwater elevations and system capture zone shown in Figures 3-1i and 3-8 are based on observed groundwater elevations measured in monitoring wells and estimated groundwater elevations for extraction wells assuming the system was in operation. These estimated operating extraction well groundwater elevations were based on historical data collected during system operation which consistently demonstrated a cone of depression associated with each extraction well when in operation.

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.

3.2 PUMPING CONDITIONS

Figures 3-1c to 3-1i 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, June 2006, and July 2007 while the system was fully operational. During July 2008, the system was not operated continuously and groundwater contours are based on water level measurements in monitoring wells and estimated drawdown assuming system operation.

The resulting groundwater flow patterns indicate 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, June 2006, July 2007 and July 2008 are presented in Figures 3-2, 3-3, 3-4, 3-5, 3-6, 3-7 and 3-8, respectively. Pumping well RW-3 was turned off in January 2005. Pumping wells RW-1 and RW-2 have been operated four to six hours every two weeks since August 2007 because of a pilot test of a SVE system near MW-4S and MW-4D. The groundwater contour map and capture zone map prepared for July 2008 are based on current water level measurements for monitoring wells and estimated recovery well drawdown historical data during system operation for the pumping wells. The resulting and depicted groundwater flow paths leading to a recovery well indicate 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), June 2006, July 2007 and July 2008 conditions. A comparison of the gradients measured in August 2002, April 2003, March 2004,

June 2005, June 2006, July 2007 and July 2008 at which time the treatment system was operational (or partially 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

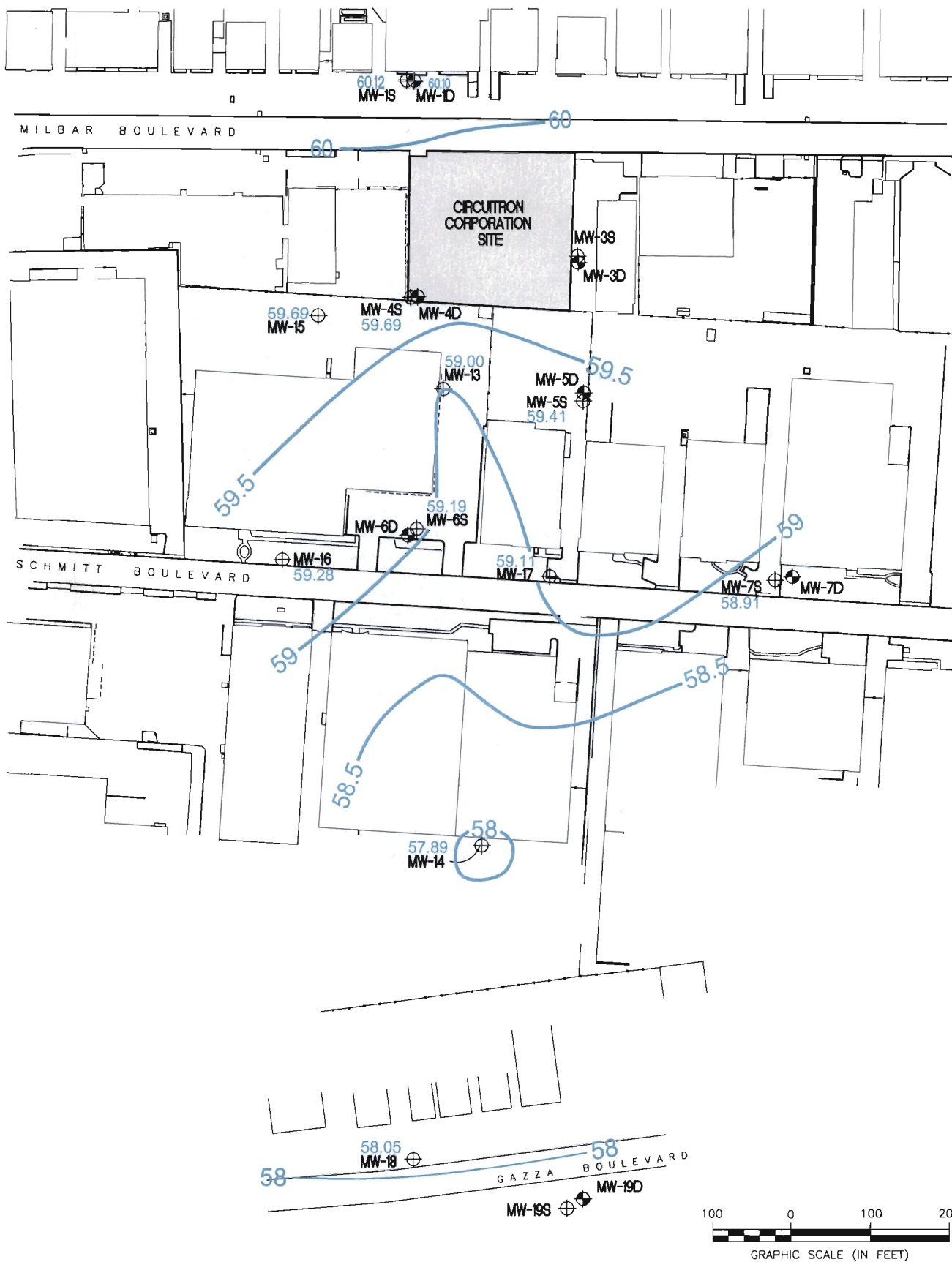
Groundwater flow and contaminant transport modeling was performed by Radian International in 1999 to assist in the final design of the OU-2 remedy. The selected design model predicts the extent of the capture zone as a result of pumping groundwater for treatment (Radian, 1999). Additional modeling was 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, 3-6, 3-7 and 3-8 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, June 2006, July 2007 and July 2008 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 July 2008 (assuming operation of the pumping wells) is similar to what was observed in 2006 and 2007 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
July 2007 (pumping)	0.002	0.003	0.003	0.003
July 2008 (pumping)	0.002	0.003	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
- 58.05 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE

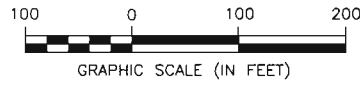
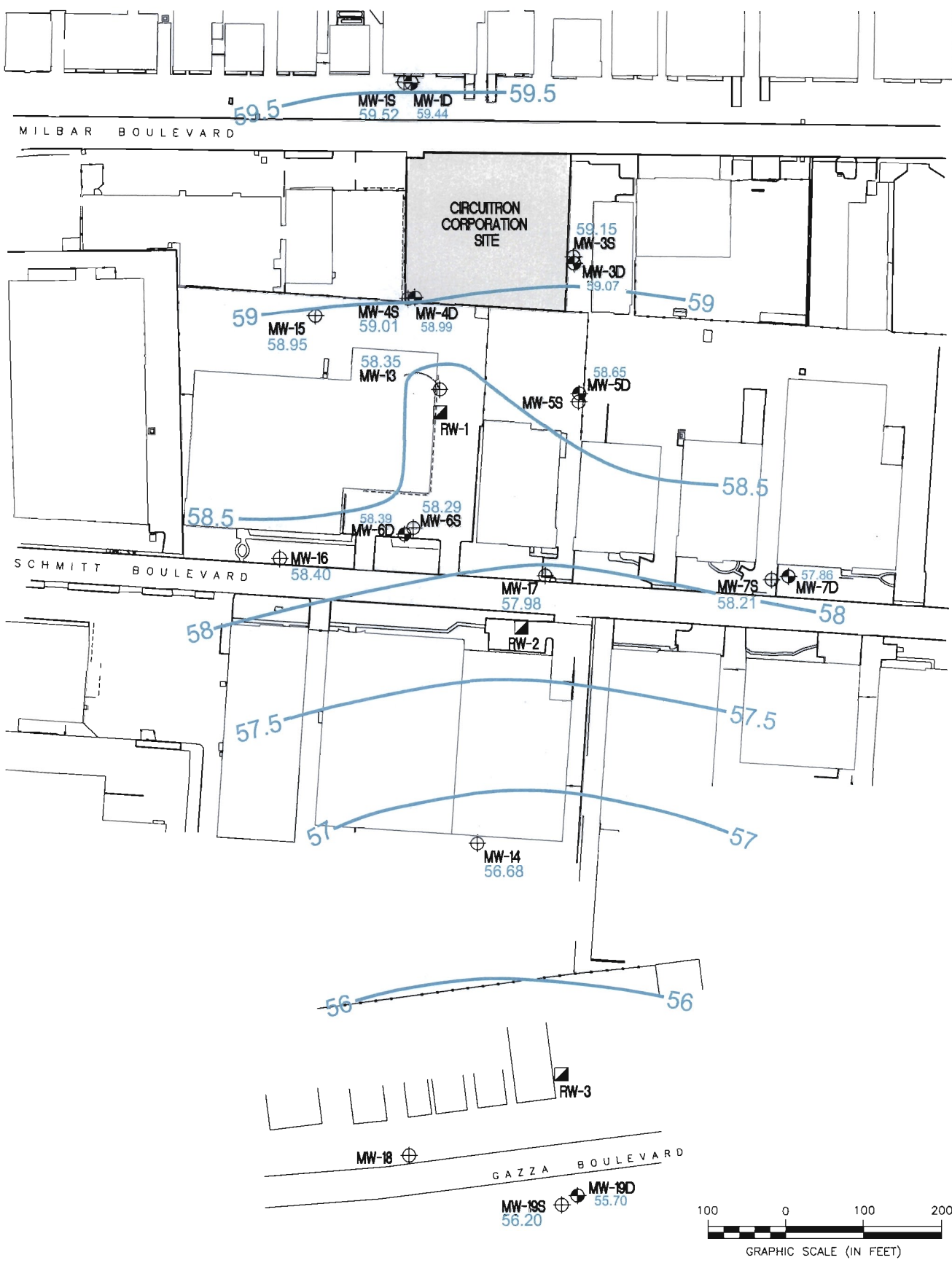
January 1999
Groundwater Elevation Contour Map (Non-pumping)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 3-1a.DWG

DATE: 4-29-03

FIGURE #: 3-1a



LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 56.20 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE

June 2000

Groundwater Elevation Contour Map (Non-pumping)

Upper Glacial Aquifer

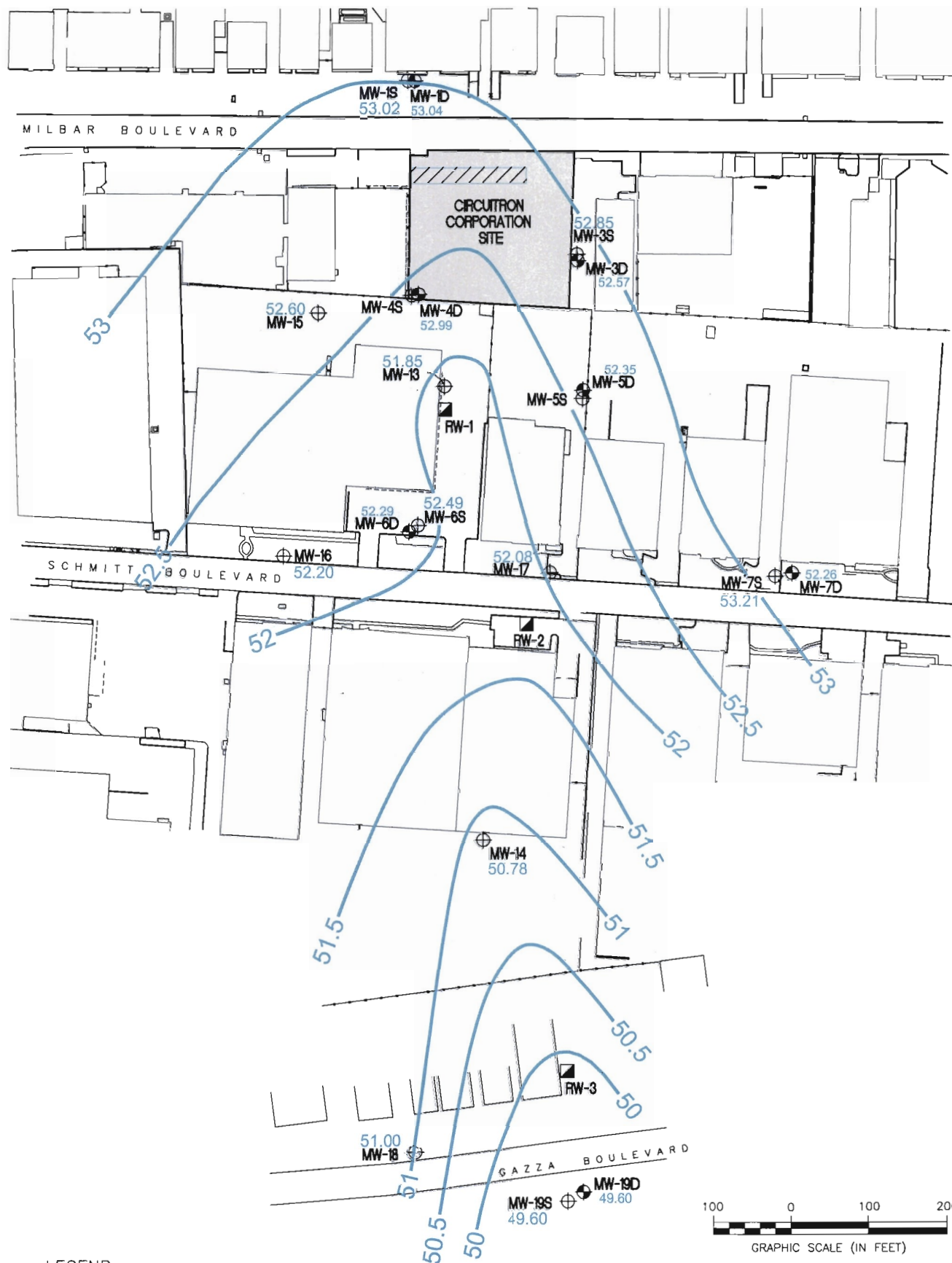
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 3-1b.DWG

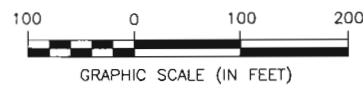
DATE: 4-29-03

FIGURE #: 3-1b

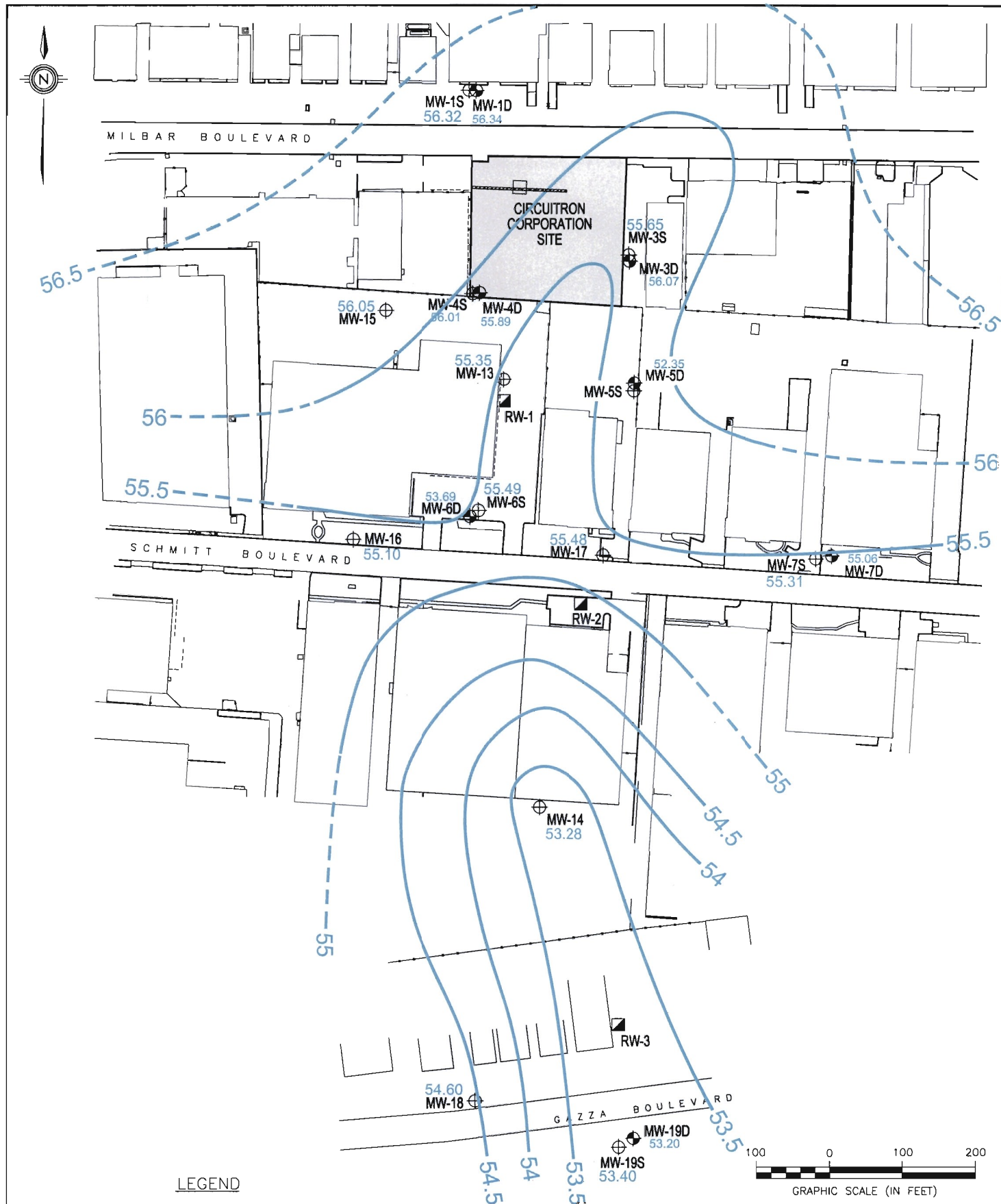


LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- RECOVERY WELL
- 51.00 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- /// NORTHERN INJECTION TRENCH



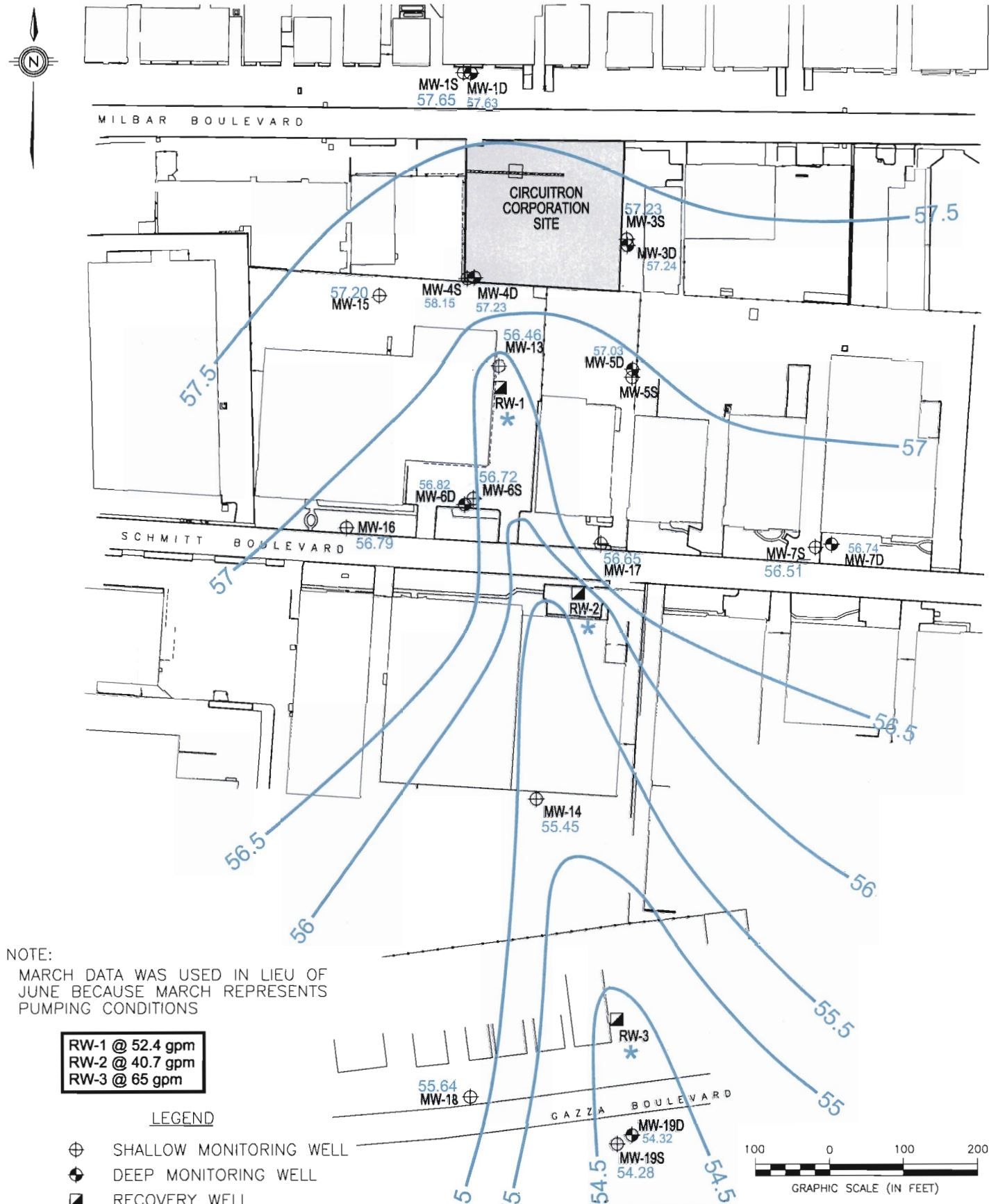
August 2002		
Groundwater Elevation Contour Map (Pumping)		
Upper Glacial Aquifer		
Circuitron Corporation Superfund Site East Farmingdale, New York		
URS		
FILENAME: FIG 3-1c.DWG	DATE: 4-29-03	FIGURE #: 3-1c



April 2003
Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer
 Circuitron Corporation Superfund Site
 East Farmingdale, New York

URS

FILENAME: FIG 3-1d.DWG	DATE: 2-2-04	FIGURE #: 3-1d
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NOTE:
MARCH DATA WAS USED IN LIEU OF JUNE BECAUSE MARCH REPRESENTS PUMPING CONDITIONS

RW-1 @ 52.4 gpm
RW-2 @ 40.7 gpm
RW-3 @ 65 gpm

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- RECOVERY WELL
- 55.64 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- REINJECTION TRENCH AND MANHOLE
- * GROUNDWATER ELEVATIONS FOR THE RECOVERY WELLS ARE NOT AVAILABLE AT THIS TIME PENDING VERIFICATION OF THE TOP OF CASING ELEVATIONS.

March 2004

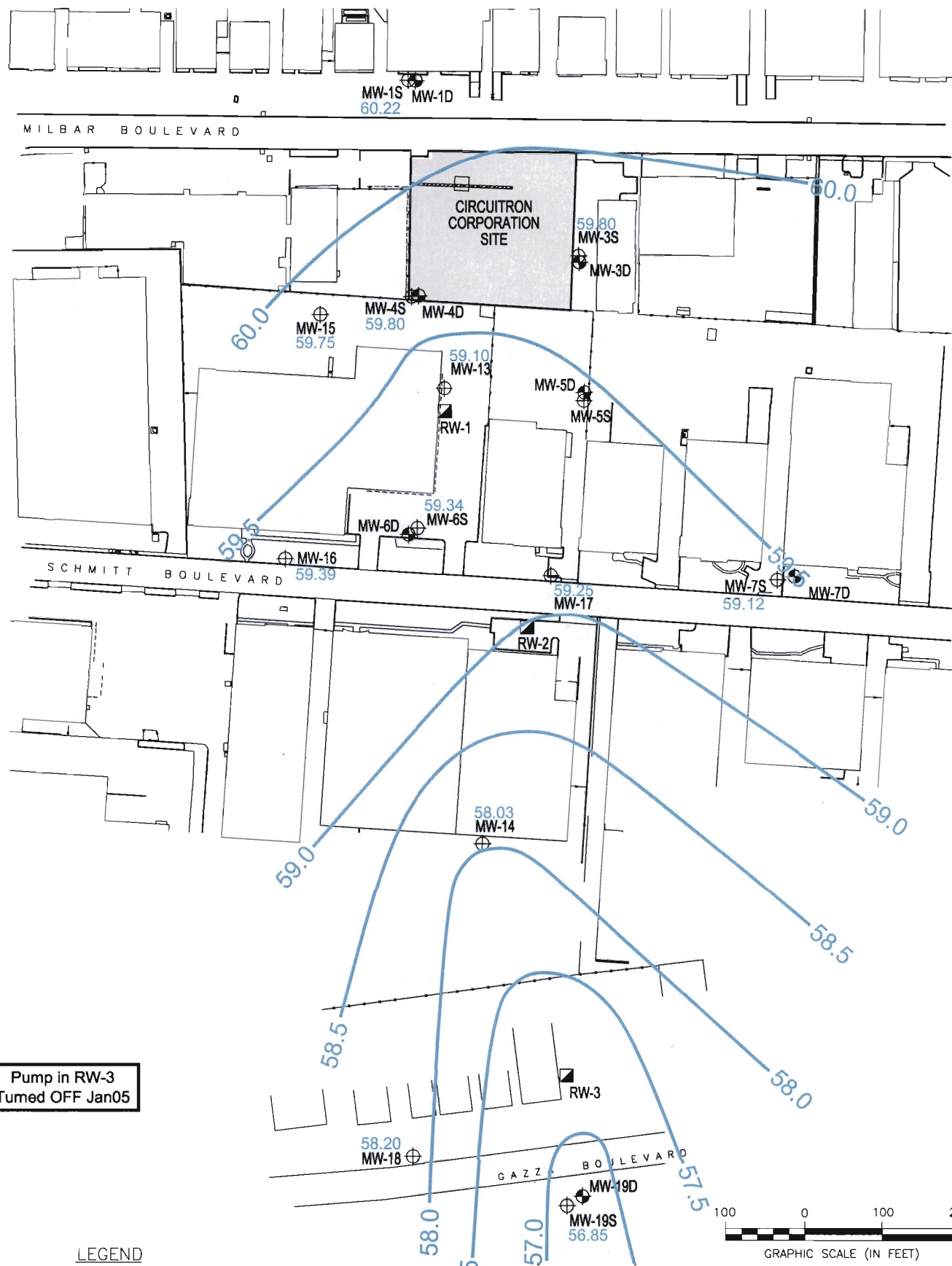
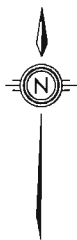
Groundwater Elevation Contour Map (Pumping)

Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

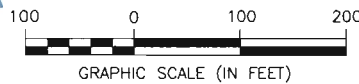
FILENAME: FIG 3-1e.DWG	DATE: 9-1-05	FIGURE #: 3-1e
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Pump in RW-3
Turned OFF Jan05

LEGEND

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



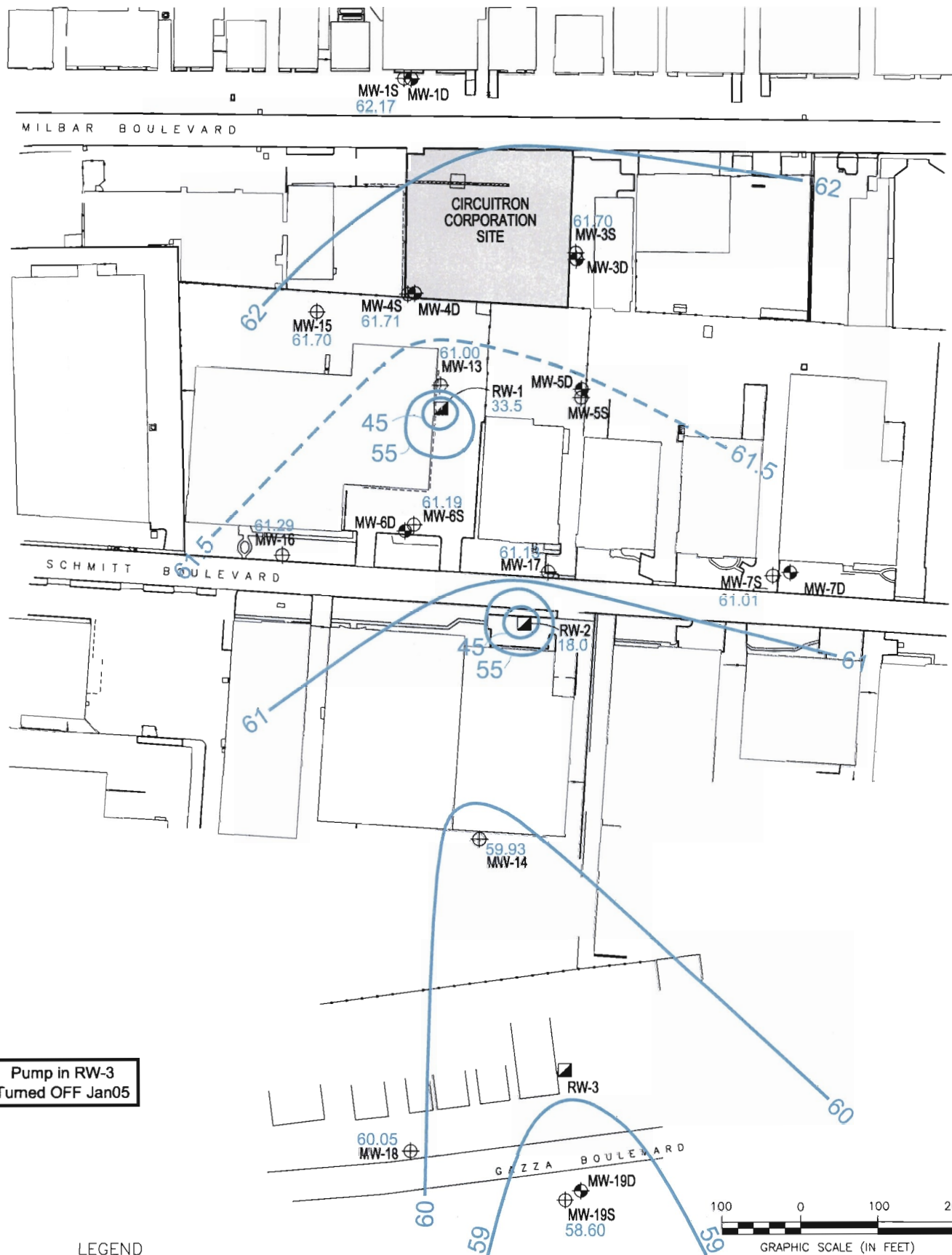
June 2005
Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 3-1f.DWG

DATE: 10-3-05

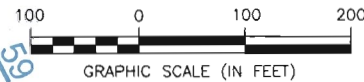
FIGURE #: 3-1f



Pump in RW-3
Turned OFF Jan05

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 60.05 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- REINJECTION TRENCH AND MANHOLE



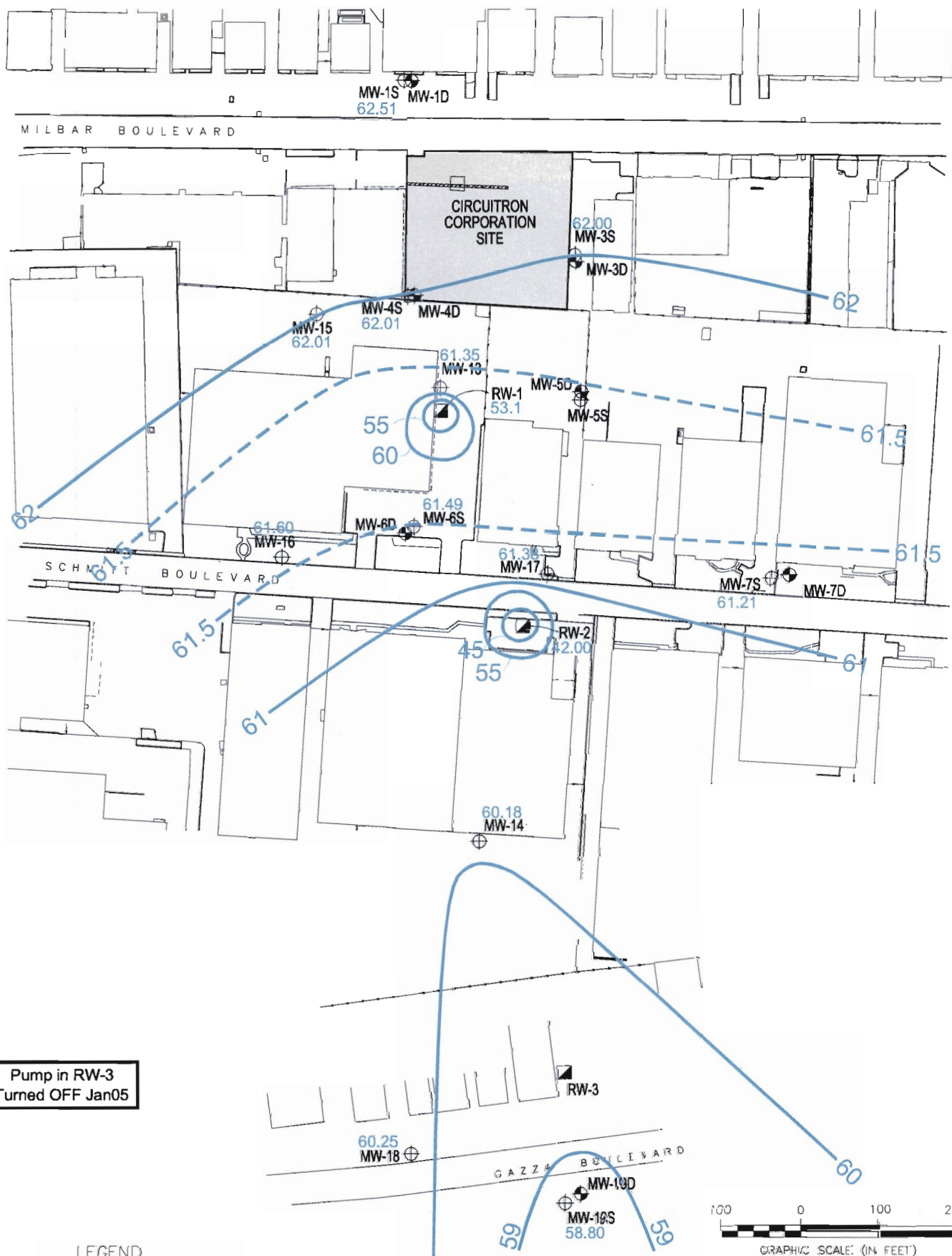
June 2006
Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 3-1g.DWG

DATE: 9-11-06

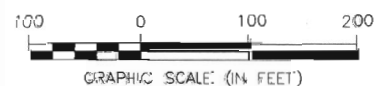
FIGURE #: 3-1g



Pump in RW-3
Turned OFF Jan05

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⦿ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 60.05 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- REINJECTION TRENCH AND MANHOLE



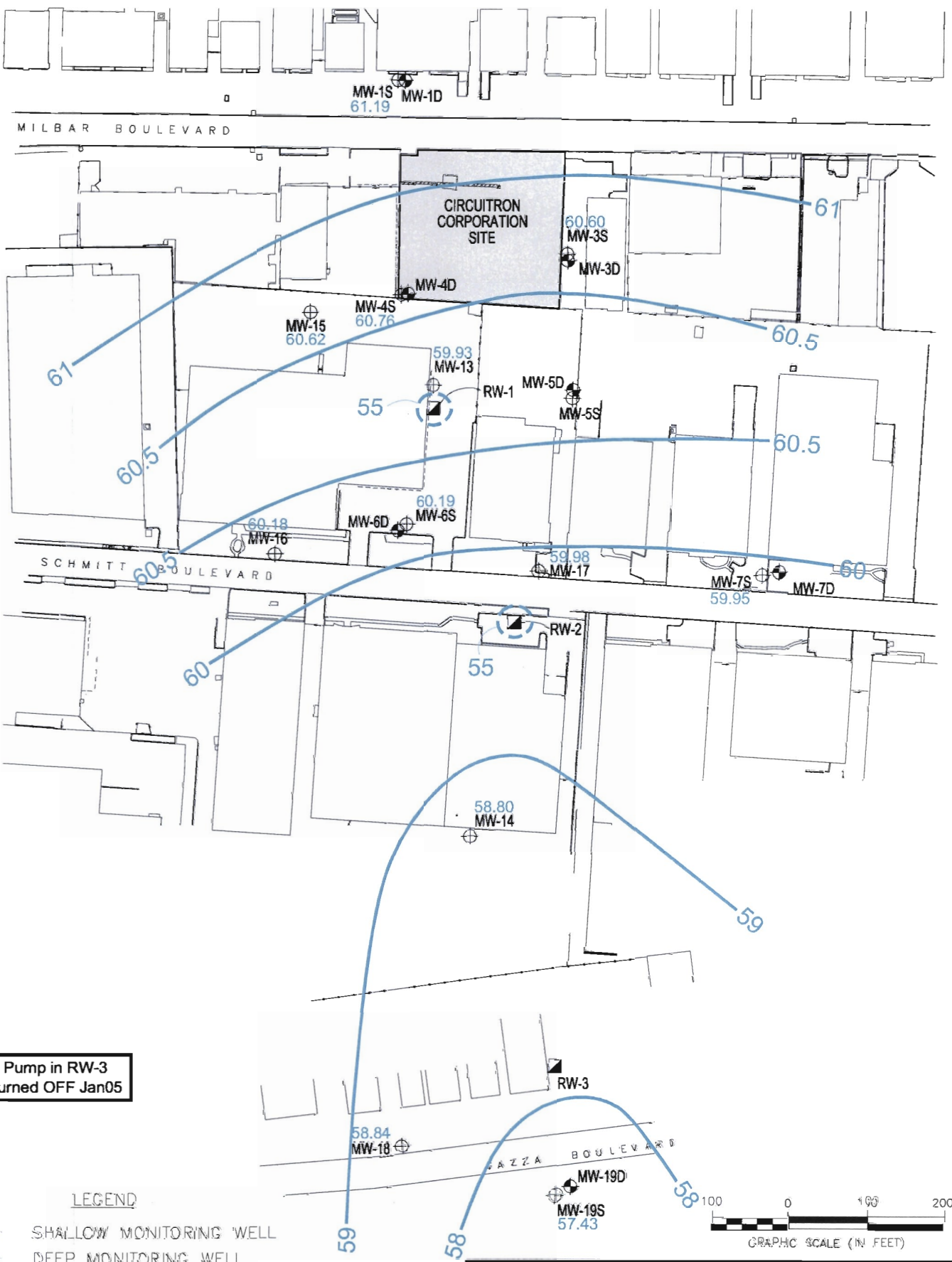
July 2007

Groundwater Elevation Contour Map (Pumping)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

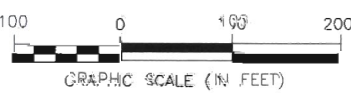
FILENAME: FIG 3--T1.DWG DATE: 10-31-07 FIGURE #: 3-1h



Pump in RW-3
Turned OFF Jan05

LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY WELL
- 60.19 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- ESTIMATED GROUNDWATER ELEVATION CONTOUR LINE (SYSTEM OPERATING)
- REINJECTION TRENCH AND MANHOLE



July 2008

Groundwater Elevation Contour Map (Pumping)

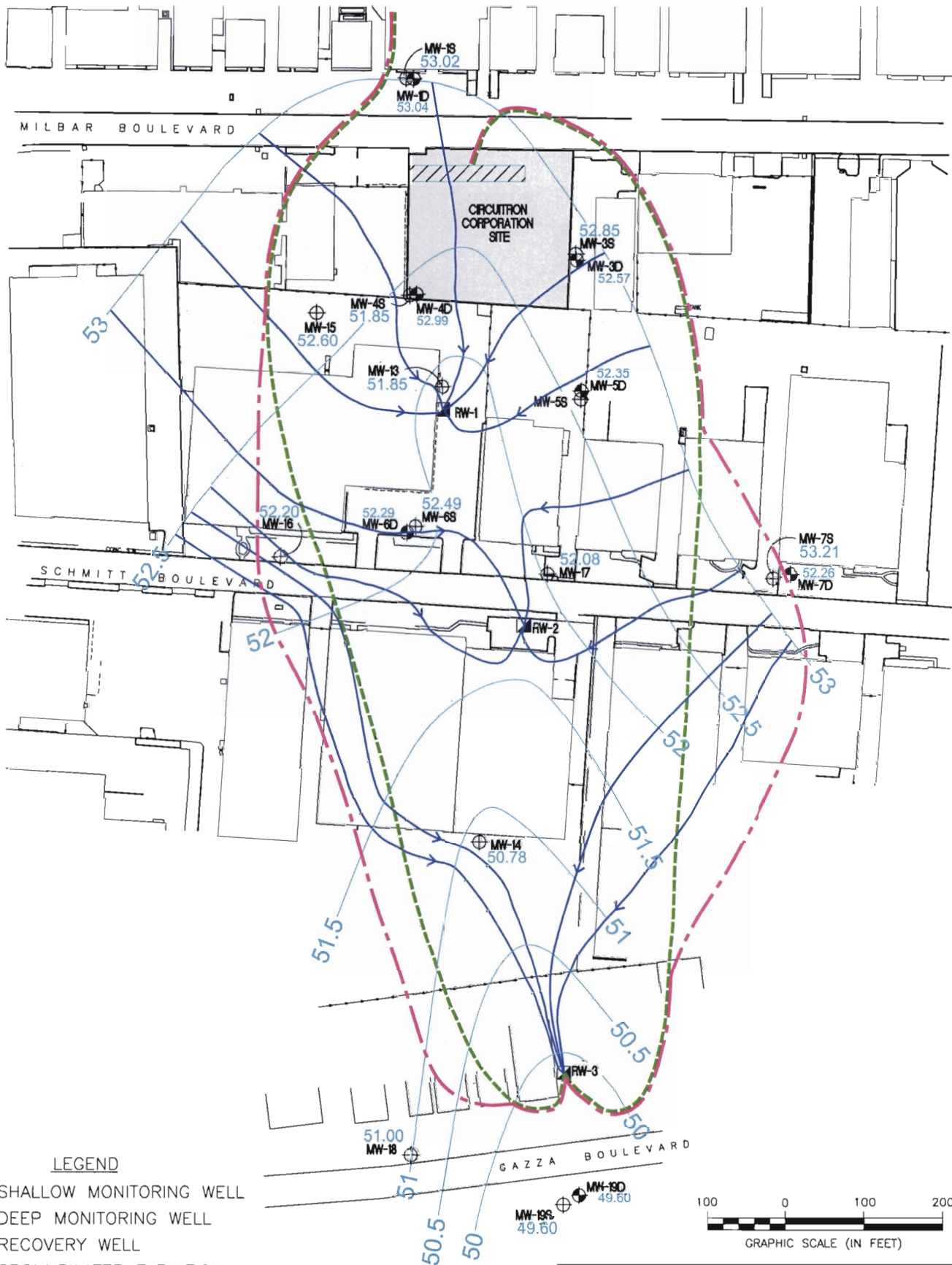
Upper Glacial Aquifer

Circuitron Corporation Superfund Site

East Farmingdale, New York

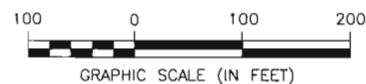
URS

FILENAME: FIG_3-11.DWG	DATE: 12-1-08	FIGURE #: 3-1
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LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- RECOVERY WELL
- 56.20 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- ▨ NORTHERN INJECTION TRENCH
- GROUNDWATER FLOW DIRECTION
- - - MODELED ZONE OF CAPTURE (RADIAN, 1999)
- - - OBSERVED ZONE OF CAPTURE, AUGUST 2002



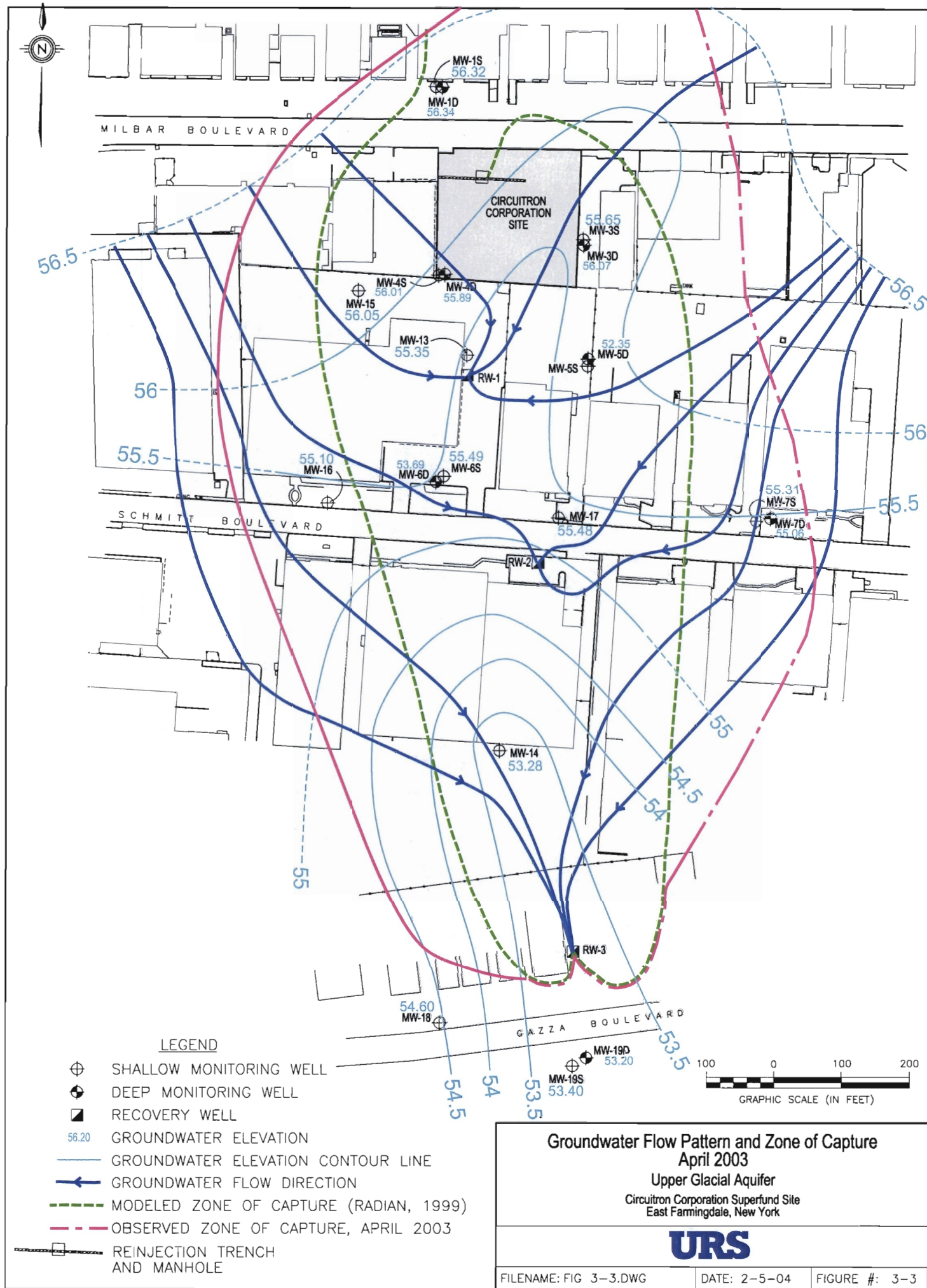
Groundwater Flow Pattern and Zone of Capture
August 2002
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

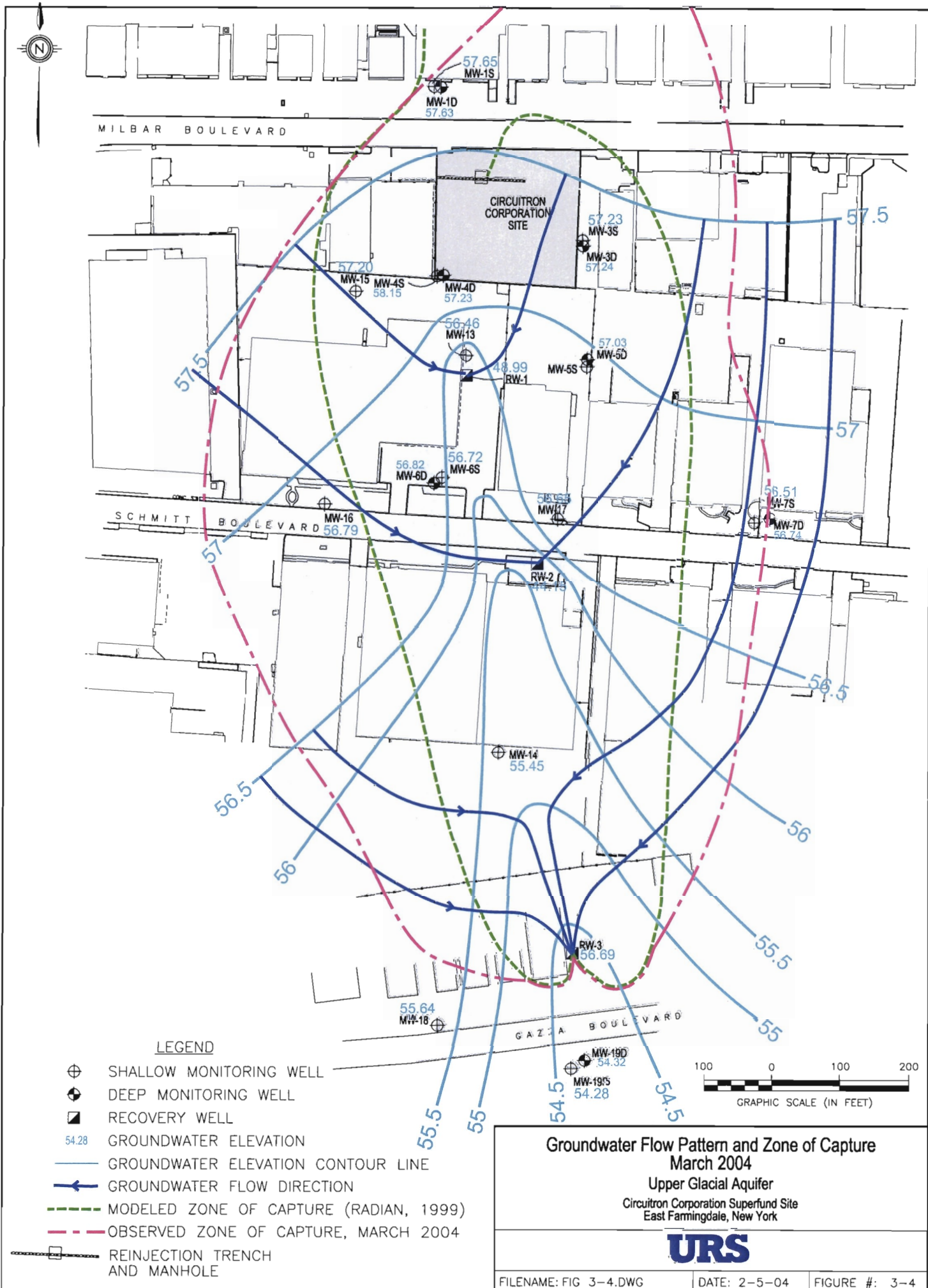
URS

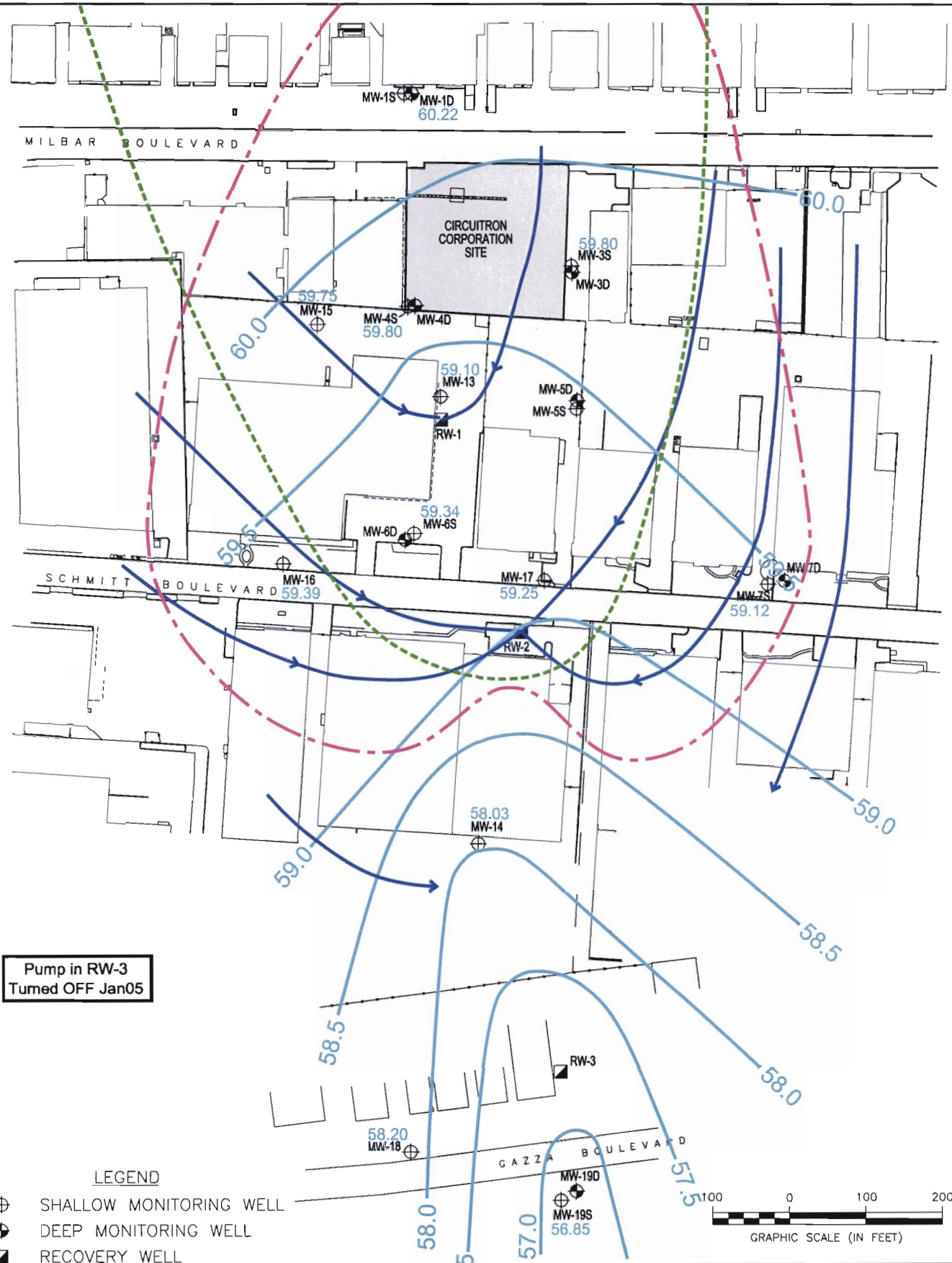
FILENAME: FIG 3-2.DWG

DATE: 4-29-03

FIGURE #: 3-2



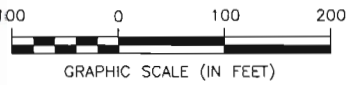




Pump in RW-3
Turned OFF Jan05

LEGEND

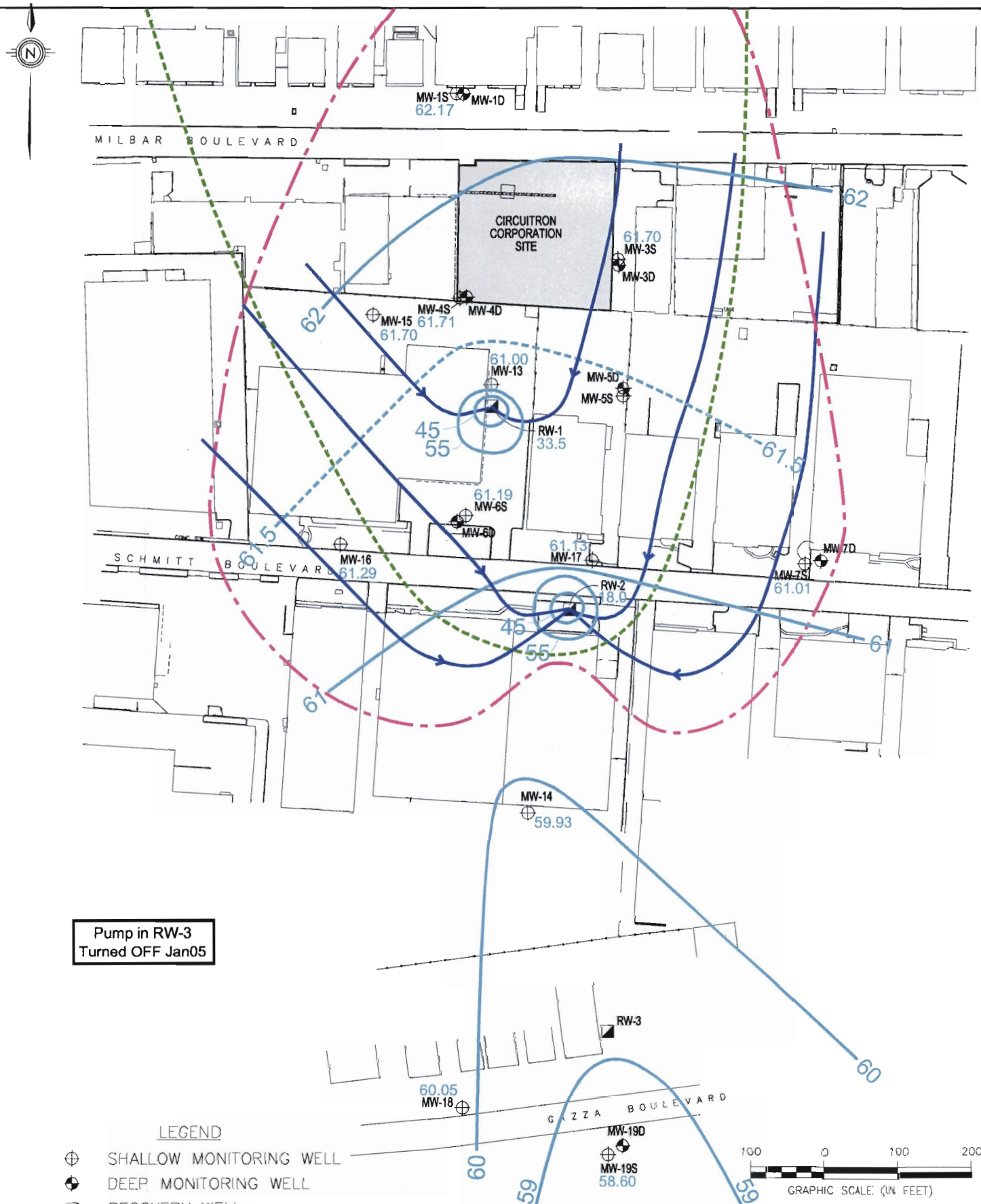
- ⊕ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 54.28 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- GROUNDWATER FLOW DIRECTION
- - - MODELED ZONE OF CAPTURE (URS, 2005)
- - - OBSERVED ZONE OF CAPTURE, JUNE 2005
- REINJECTION TRENCH AND MANHOLE



**Groundwater Flow Pattern and Zone of Capture
June 2005**

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





Pump in RW-3
Turned OFF Jan05

Groundwater Flow Pattern and Zone of Capture June 2006

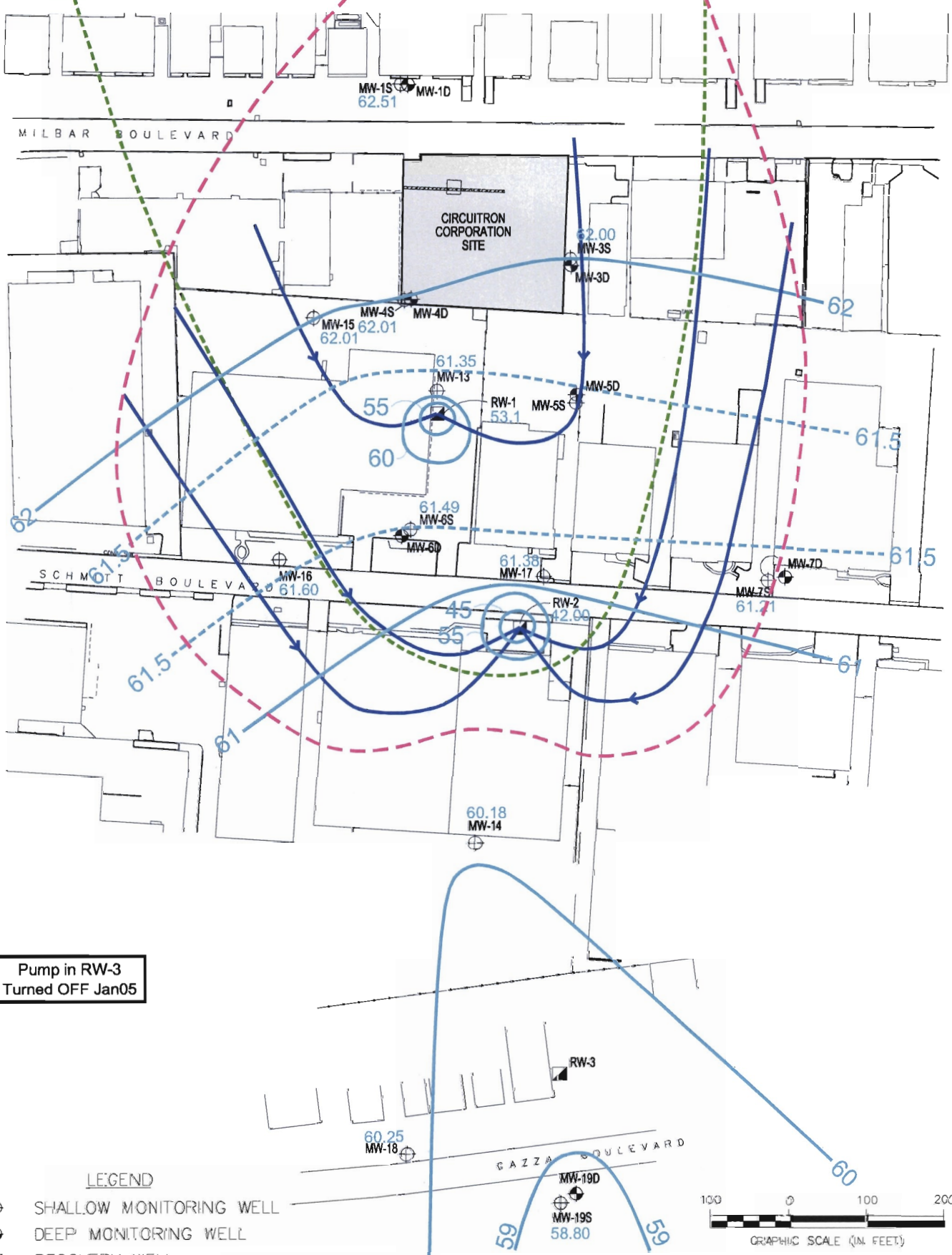
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 3-6.DWG

DATE: 9-11-06

FIGURE #: 3-6



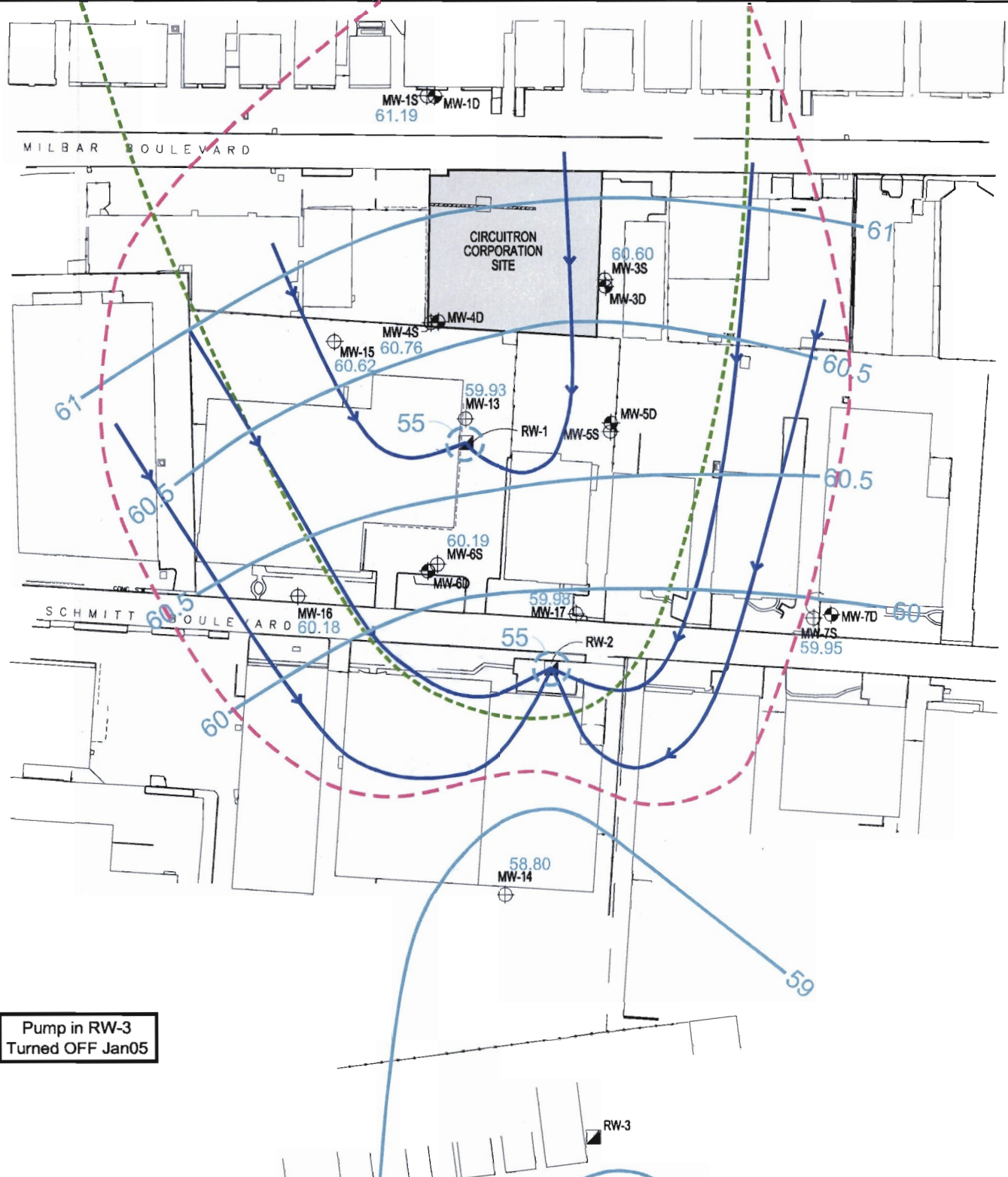
Pump in RW-3
Turned OFF Jan05

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 60.05 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- GROUNDWATER FLOW DIRECTION
- - - MODELED ZONE OF CAPTURE (URS, 2005)
- - - OBSERVED ZONE OF CAPTURE, JULY 2007
- ▬ REINJECTION TRENCH AND MANHOLE

Groundwater Flow Pattern and Zone of Capture
July 2007
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

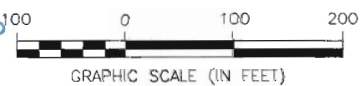




Pump in RW-3
Turned OFF Jan05

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊙ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 60.19 GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR LINE
- - - ESTIMATED GROUNDWATER ELEVATION CONTOUR LINE (SYSTEM OPERATING)
- GROUNDWATER FLOW DIRECTION
- - - MODELED ZONE OF CAPTURE (URS, 2005)
- - - OBSERVED ZONE OF CAPTURE, JULY 2008
- REINJECTION TRENCH AND MANHOLE



Groundwater Flow Pattern and Zone of Capture
July 2008
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 3-8.DWG

DATE: 12-1-08

FIGURE #: 3-8

4.0 GROUNDWATER QUALITY

During the period from June 28, 2000 to July 2008, when the OU-2 remedy was operating (fully or partially), 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 groundwater samples analyzed that have 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 (ALs). Multiple exceedances observed in groundwater from 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 only a pattern of multiple exceedances. Table 4-1 summarizes the exceedances observed in groundwater from each well and Figures 4-1a and 4-2a show exceedances of VOC compounds observed in groundwater sampled from shallow and deep wells in map view. Appendix A-2 contains the historical summary data for each monitoring well.

Of all the shallow wells, there are three wells, MW-14, MW-18 and MW-19S, that are located outside the current 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 a single exceedance of 1,1-DCA. 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. Monitoring well MW-14 has not exhibited any exceedances of VOC standards during the last seven rounds of annual groundwater sampling conducted since 2002.

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

For the purposes of this document, the following criteria were 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 groundwater obtained from the upgradient well prior to remediation system startup (May 1993/February 1994 and June 2000 sampling events) and was observed as an exceedance in 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 groundwater from the upgradient well).

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

- a) It was observed as an exceedance in groundwater from the upgradient well prior to remediation system startup (May 1993/February 1994 and June 2000 sampling events); such compounds are considered to be background; or
- b) If 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 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.

4.3 ISOCONCENTRATION MAPS

Isoconcentration maps were prepared for sampling events conducted in June 2000, January/February 2002, April 2003, June 2004, June 2005, July 2006, August 2007 and July 2008 and are presented in Figures 4-3(a–h) and 4-4(a–h). 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 compounds (1,1-DCA and 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 shallow wells. Concentrations of 1,1-DCA and 1,1,1-TCA exceeded their respective action levels in the groundwater samples collected from site monitoring wells MW-4S and MW-17 in the July 2008 sampling event.

Isoconcentration contours of these compounds were prepared for the June 2000, January/February 2002, April 2003, June 2004, June 2005, July 2006, August 2007 and July 2008 data and are presented in Figures 4-3a to 4-3h (1,1-DCA) and Figures 4-4a to 4-4h (1,1,1-TCA). Concentrations of 1,1-DCA found in groundwater for February 2002, April 2003, June 2004, June 2005, July 2006, August 2007 and July 2008 are considerably less than the levels present in June 2000 in all cases except monitoring well MW-17. The MW-17 sample collected during July 2008 had a 1,1-DCA concentration of 20 µg/L which exceeds the action level of 5 µg/L. This was the first detection of any VOC in MW-17 since 2002. VOCs detected in MW-17 during the July 2008 sample event may result from partial operation of the groundwater extraction and treatment system during the SVE pilot test. During this period, the system was operated for four to six hours every two weeks rather than continuously. A 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 2008 indicate all locations (except for wells MW-4S and MW-17) with less than 5 µg/l of 1,1,1-TCA. While very slight variations might be detected from year to year, the significant reductions in the mass of 1,1,1-TCA dissolved in groundwater are evidence that the remediation system has been effective in capturing this constituent in the shallow groundwater at the site.

Acetone was detected in the first set of groundwater samples collected for the July 2008 sampling event. The original samples were collected in passive diffusion bailers and sent to Test America for analysis and acetone was reported in all monitoring well groundwater sample results. Subsequently, five (5) monitoring well locations were selected for re-sampling and the samples were sent to a different lab for re-analysis. The results indicated that no acetone was present in the groundwater at concentrations above detection limits (i.e. ND). Both USACE and USEPA were notified of the original acetone detections.

The July 2008 data indicate that only wells MW-4S and MW-17 exhibited levels of VOCs exceeding NY Water Quality Criteria (Figure 4-1a). The only VOC detected in groundwater obtained from well MW-4S to exceed NY Water Quality Criteria in July 2008 was 200 µg/l of 1,1,1-TCA. It should be noted that laboratory results for this sample exhibited a detection limit of 20 µg/l. The sample from MW-17 contained 1,1-DCA and 1,1,1-TCA at concentrations of 20 µg/l and 7.4 µg/l, respectively. These results were not consistent with the general trend for this well as VOCs had not been detected since 2002 and are likely due to suspension of system operation during the SVE pilot test. As noted in Section 1.5, localized treatment (SVE pilot test) around MW-4S was initiated in August 2007 by the USEPA. Overall, historical results indicate the success of the remediation system at capturing VOCs in the shallow aquifer. Groundwater obtained from well MW-4S historically showed greater levels 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 declined since October 2000.

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 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 groundwater from upgradient well MW-1D, indicating these specific compounds are non site-related. These same compounds were also shown to have multiple exceedances in 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 the deeper Magothy Aquifer for the June 2005, July 2006, August 2007 and July 2008 sampling events and for 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 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 groundwater from downgradient well MW-19D through July 2006. 1,2-DCE is a daughter-product of natural biodegradation of PCE and TCE (both of which were observed as exceedances in groundwater from upgradient well MW-1D); therefore, 1,2-DCE is not considered a site-related compound.

1,1-DCA, detected as multiple exceedances in groundwater from MW-7D, is a daughter-product of natural biodegradation of 1,1,1-TCA. 1,1,1-TCA 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 groundwater samples collected during the period extending from June 2000 through July 2008. Time-series graphs and the associated data are presented in Appendix B.

In general, the time-series graphs and review of analytical results indicate no apparent change in concentrations of VOCs detected in groundwater from the shallow and deep wells over the Performance Monitoring Period. For a significant number of samples, detection limits achieved during the July 2008 sampling event were higher than those obtained during previous events. Chemicals which were not detected in a sample are graphed at their detection limit. Consequently, the graphs show an increase in plotted concentrations in 2008 for a large number

of chemicals which is attributable to the detection limits achieved by the laboratory rather than the actual detection of chemicals at increased concentrations as compared to previous years. Considering the detection limit issue, no change in concentrations can be inferred over the Performance Monitoring Period. Continued monitoring will be conducted to evaluate trends in groundwater concentrations.

Trends over time in the levels of compounds observed as exceedances in groundwater from downgradient shallow well MW-19S are useful to evaluate the effectiveness of the remediation system. No VOC compounds have been observed as exceedances in groundwater from MW-19S since 6 µg/L 1,1,1-TCA (a non-site related constituent) was detected in April 2003. Therefore, the time-series graph shows that the remediation system is effective in mitigating the VOC compounds.

Trends over time in the levels of compounds observed as exceedances in groundwater from downgradient well MW-19D, indicate attenuation and degradation of these compounds continue as the non-site related deep groundwater plume migrates across the site.

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	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	8	No	Baseline exceedance in MW-1S
		Manganese	6	No	Baseline exceedance in MW-1S
	MW-3S	1,1,1 Trichloroethane	2	Yes	
		Iron	6	No	Baseline exceedance in MW-1S
	MW-4S	1,1 Dichloroethane	4	Yes	Method blank artifact
		1,1 Dichloroethene	2	Yes	
		1,1,1 Trichloroethane	13	Yes	
		Tetrachloroethene	10	Yes	
		Methylene chloride	3	No	
		Chromium	5	Yes	Baseline exceedance in MW-1S
		Iron	5	No	
	MW-6S	1,1 Dichloroethene	1	Yes	Method blank artifact
		1,1,1 Trichloroethane	10	Yes	
		Methylene chloride	2	No	
		Antimony	1	No	Single exceedance
		Chromium	3	Yes	Baseline exceedance in MW-1S
		Iron	3	No	
	MW-7S	Methylene chloride	1	No	Method blank artifact
		Chromium	2	Yes	Baseline exceedance in MW-1S
		Iron	3	No	
	MW-13	1,1 Dichloroethane	5	Yes	Method blank artifact
		1,1 Dichloroethene	2	Yes	
		1,1,1 Trichloroethane	10	Yes	
		Methylene chloride	1	No	Single exceedance
		Chlorobenzene	1	No	Baseline exceedance in MW-1S
		Iron	*6	No	
		Manganese	1	No	Baseline exceedance in MW-1S

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	Site-Related	Rationale ⁽¹⁾
Shallow Groundwater (Continued)	MW-14	1,1,1 Trichloroethane	6	Yes	
		Methylene chloride	1	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)	3	Yes	
		Tetrachloroethene	2	Yes	
		Trichloroethene	1	Yes	
		Iron	6	No	Baseline exceedance in MW-1S
	MW-16	Manganese	5	No	Baseline exceedance in MW-1S
		Arsenic	1	No	Single exceedance
		Iron	6	No	Baseline exceedance in MW-1S
		Lead	1	No	Single exceedance
	MW-17	Manganese	5	No	Baseline exceedance in MW-1S
		1,1 Dichloroethane	2	Yes	
		1,1,1 Trichloroethane	8	Yes	
		1,1,2 Trichloroethane	2	Yes	
	MW-18	Methylene chloride	1	No	Method blank artifact
		Chromium	1	No	Single exceedance
		Iron	6	No	Baseline exceedance in MW-1S
		Lead	1	No	Single exceedance
	MW-19S	Manganese	2	No	Baseline exceedance in MW-1S
		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	Yes	
		1,1,1 Trichloroethane	2	Yes	
		Methylene chloride	4	No	Method blank artifact
		Chromium	2	Yes	
	MW-19S	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

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	Site-Related	Rationale ⁽¹⁾
Deep Groundwater	MW-1D (Upgradient well)	1,1-Dichloroethane	1	No	Upgradient well
		1,1 Dichloroethene	12	No	
		1,1,1 Trichloroethane	12	No	
		Tetrachloroethene	*5	No	
		Trichloroethene	9	No	
		Methylene chloride	2	No	
		Chromium	5	No	Upgradient well
		Iron	8	No	
		Lead	1	No	
	MW-3D	Methylene chloride	1	No	Method blank artifact
		Chromium	3	No	Baseline exceedance in MW-1D
		Iron	4	No	Baseline exceedance in MW-1D
	MW-4D	Manganese	1	No	Not site-related in shallow aquifer
		1,1 Dichloroethane	1	No	Biodegradation product of 1,1,1-TCA
		1,1 Dichloroethene	9	No	Baseline exceedance in MW-1D
		1,1,1 Trichloroethane	10	No	Baseline exceedance in MW-1D
		Tetrachloroethene	2	No	Baseline exceedance in MW-1D
		Trichloroethene	8	No	Baseline exceedance in MW-1D
		Methylene chloride	2	No	Method blank artifact
	MW-5D	Iron	*6	No	Baseline exceedance in MW-1D
		Methylene chloride	2	No	Method blank artifact
		Iron	4	No	Baseline exceedance in MW-1D
	MW-6D	Manganese	6	No	Not site-related in shallow aquifer
		1,1 Dichloroethene	4	No	Baseline exceedance in MW-1D
		1,1,1 Trichloroethane	7	No	Baseline exceedance in MW-1D
		Trichloroethene	7	No	Baseline exceedance in MW-1D
		Methylene chloride	2	No	Method blank artifact
		Chromium	5	No	Baseline exceedance in MW-1D
		Iron	5	No	Baseline exceedance in MW-1D
		Nickel	5	No	Not site-related in shallow aquifer

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	Site-Related	Rationale ⁽¹⁾
Deep Groundwater (Continued)	MW-7D	1,1 Dichloroethane	6	No	Biodegradation product of 1,1,1-TCA
		1,1 Dichloroethene	1	No	Baseline exceedance in MW-1D
		1,1,1 Trichloroethane	2	No	Baseline exceedance in MW-1D
		Trichloroethene	1	No	Baseline exceedance in MW-1D
		Methylene chloride	2	No	Method blank artifact
		Iron	*3	No	Baseline exceedance in MW-1D
	MW-19D	1,1 Dichloroethene	13	No	Baseline exceedance in MW-1D
		1,1,1 Trichloroethane	13	No	Baseline exceedance in MW-1D
		1,2 Dichloroethene (total)	10	No	Biodegradation product of PCE and TCE
		Tetrachloroethene	13	No	Baseline exceedance in MW-1D
		Trichloroethene	13	No	Baseline exceedance in MW-1D
		Chloroform	5	No	Biodegradation product of 1,1,1-TCA
		Methylene chloride	4	No	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 2008 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.

* 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.

MW-1S																	
Analyte	AL	Feb-94	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCE	5	<1	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5	<5	<0.40	<0.84	<5
1,1,1-TCA	5	0.40 J	<5	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<5	<0.43	<0.40	<5
PCE	5	<1	<5	<5	<5	<5	8	<5	<5	<5	<5	<5	<5	<5	<0.35	<0.78	<5
TCE	5	<1	<5	<5	<5	<5	12	<5	<5	<5	<5	<5	<5	<5	<0.31	<0.37	<5

MW-3S																
Analyte	AL	Feb-94	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04	Jun-05	Jul-06	Aug-07	Jul-08
1,1,1 TCA	5	4 J	10	5	7	4 J	3 J	3 J	5 J	*4 J	4 J	2 J	2 J	<0.43	<0.40	<5

MW-4S																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04*	Jun-04 (LF)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCA	5	14 JD	14 JD	7 JD	7 JD	2 J	2 JD	4 JD	NS	2 J	<5	<5	<5	<0.34	<0.39	<20
1,1 DCE	5	40 JD	22 JD	<5	<5	<5	3 JD	5 JD	NS	<5	*4 J	5	1 J	<0.53	<0.61	<20
1,1,1 TCA	5	1000 D	860 D	630 D	260 D	80	280 D	320 D	NS	190	*205	260	*88.5	310	340	200
PCE	5	13 JD	19 JD	14 JD	12 D	11	15 D	14 D	NS	26	*11	12	<5	4.4 J	6.6	<20

MW-15																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,2 DCE (t)	5	42	*1J	*19	24	<5	<5	<5	<5	<5	<5	<5	<5	<0.47	<0.83	<5
PCE	5	11	<5	*8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.50	<0.44	<5
TCE	5	14	<5	*4J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.58	<5

MW-13																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCA	5	14	40 D	9	8	7	2 J	<5	*3 J	4 J	<5	<5	<5	<0.34 J	<0.39	<5
1,1 DCE	5	8	7 JD	2 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.53 J	<0.61	<5
1,1,1 TCA	5	120	350 D	110	34	34	15	34	*12	30	14	6	<5	<0.33 J	<0.48	4.6 J

MW-6S																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCE	5	<5	14 JD	<5	<5	<5	1 J	1 J	NS	<5	1 J	<5	<5	<0.53	<0.61	<5
1,1,1 TCA	5	15	360 D	110	85	*110	92	54	NS	19	24	16	<5	<0.33	<0.48	<5

MW-17																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCA	5	5	7	3 J	2 J	1 J	1 J	2 J	3 J	<5	<5	<5	<5	<0.38	<0.39	29
1,1,1 TCA	5	39	58	33	9	12	19	22	5 J	4 J	<5	<5	<5	<0.53	<0.48	7.4
1,1,2 TCA	1	<5	3 J	<5	<5	1 J	2 J	<5	<5	<5	<5	<5	<5	<0.44	<0.70	<5

MW-14																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1,1 TCA	5	21	8	15	5 J	12	6	15	1 J	2 J	3 J	<5	<5	<0.33 J	<0.48	<5

MW-19S																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCA	5	6	4 J	3 J	4 J	5 J	3 J	3 J	3 J	4 J	<5	<5	<5	<0.28	<0.39	<5
1,1,1 TCA	5	8	5 J	1 J	<5	1 J	2 J	1 J	<5	6	<5	<5	<5	<0.43	<0.48	<5

MW-18
No Exceedances

- LEGEND**
- ⊕ SHALLOW MONITORING WELL
 - ⊗ DEEP MONITORING WELL
 - ▣ RECOVERY WELL
 - 1,1 DCA 1,1 DICHLOROETHANE
 - 1,1 DCE 1,1 DICHLOROETHENE
 - 1,1,1 TCA 1,1,1 TRICHLOROETHANE
 - 1,1,2 TCA 1,1,2 TRICHLOROETHANE
 - 1,2 DCE(t) 1,2 DICHLOROETHENE (TOTAL)
 - PCE TETRACHLOROETHENE
 - TCE TRICHLOROETHENE
 - AL ACTION LEVEL: APPLICABLE FEDERAL & STATE GROUNDWATER DRINKING WATER STANDARD
 - B ANALYTE WAS DETECTED IN ASSOCIATED BLANK
 - J ESTIMATED
 - D RESULTS REPORTED FROM DILUTED SAMPLE
 - NS NOT SAMPLED, WELL DRY
 - < NOT DETECTED IN EXCESS OF STATED METHOD DETECTION LIMIT

REINJECTION TRENCH AND MANHOLE

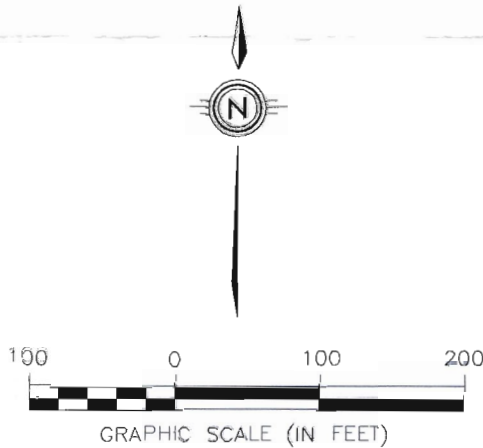
NOTES:

BOLDED VALUES EXCEED ACTION LEVEL

* VALUES MARKED WITH ASTERISK ARE THE ARITHMETIC MEAN OF NORMAL AND DUPLICATE SAMPLES
ALL CONCENTRATIONS PRESENTED IN $\mu\text{g/L}$

SINCE JUNE 2004, DIFFUSION BAG SAMPLING WAS PERFORMED:
T-TOPMOST BAG; B-BOTTOM BAG

FOR MW-4S IN JUNE 2004, DIFFUSION BAG (DB) & LOW FLOW (LF) SAMPLES WERE COLLECTED AS PER USEPA'S REQUEST.



Volatile Organic Compound Concentrations Exceeding Screening Criteria Shallow Wells
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

MW-1D																		
Analyte	AL	May-93	Feb-94	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCE	5	31.00 J	24.00	9	10	7	*8	<5	*10	11	10	7	7	7	7	4.8J	1.5J	<5
1,1,1-TCA	5	84.00 J	99.00	16	14	13	*13	<5	*16	14	12	8	7	7	8	<0.43	<0.4	<5
PCE	5	38.00 J	18.00	5 J	6	4 J	*5	<5	*6	6	5	3J	2J	1J	1J	<0.35	<0.78	<5
TCE	5	76.00 J	82.00	13	15	10	*10	<5	*11	11	12	5J	5	5	5	2.0J	1.6J	<5

MW-4D																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCA	5	*8	5	4 J	2 J	4 J	3 J	4 J	4 J	*3J	3J	4J	2J	3.0J	2.5J	3.0J
1,1 DCE	5	*14	8	6	6	8	6	8	9J	*5J	8	9	3J	4.8J	4.3J	1.6J
1,1,1 TCA	5	*27	20	13	23	11	12	12	13J	*8	8	10	2J	<0.33J	<0.48	<5
PCE	5	*8	6	4 J	<5	5 J	3 J	3 J	2 J	*2J	2J	2J	<5	<0.24J	<0.44	<5
TCE	5	*24	17	11	3 J	11	9	10	8J	*5J	6	7	3J	2.8J	2.4J	1.2J

MW-6D																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCE	5	5 J	4 J	3 J	3 J	3 J	3 J	4 J	7	5	6	6	5	7.8	5.3	1.3 J
1,1,1 TCA	5	10	8	5	5 J	4 J	5	5	9	6	6	7	6	5.8	<0.48	1.2 J
TCE	5	8	6	5	4 J	4 J	4 J	4 J	7	6	7	7	6	6.0	4.9 J	1.5 J

MW-7D																
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCA	5	8	8	8	2 J	8	8	*7	5J	*4J	1J	2J	<5	<0.28	<0.39	<5
1,1 DCE	5	4 J	5	3 J	11	3	3 J	*3 J	4 J	*1J	<5	1J	<5	<0.40	<0.61	<5
1,1,1 TCA	5	7	5 J	3 J	15	2 J	2 J	*2 J	3 J	*5J	<5	<5	<5	<0.43	<0.48	<5
TCE	5	5	6	4 JB	5 J	3 J	3 J	*3 J	3 J	*2J	<5	1J	<5	<0.31	<0.58	<5

MW-19D																	
Analyte	AL	Jun-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Jul-02	Apr-03	Jun-04 (T)	Jun-04 (B)	Jun-04 (LF)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 DCE	5	14	14	12	18	19	*18	23	24	11	<5	*22	19	*24.5	*100	<0.61	4.2
1,1,1 TCA	5	23	19	17	27	27	*28	30	28	16	2J	*23	22	*29.5	*71	<0.48	34
1,2 DCE (t)	5	3J	6	<5	7	8	*8	8	10	8	<5	*8	7	*6.5	*5.1	<0.83	2.7J
Chloroform	7	2J	2J	<5	5J	7	*7	10	14	19	2J	*32	25	*21	*3.9	<0.35	2.4J
PCE	5	46	47	50	55	65	*62	77	62	57	2J	*24	39	*19	*17.5	<0.44	8.0
TCE	5	40	34	37	36	46	*43	55	57	33	2J	*34	32	*27	*27	<0.58	40

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊙ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 1,1 DCA 1,1 DICHLOROETHANE
- 1,1 DCE 1,1 DICHLOROETHENE
- 1,1,1 TCA 1,1,1 TRICHLOROETHANE
- 1,2 DCE (t) 1,2 DICHLOROETHENE (TOTAL)

PCE TETRACHLOROETHENE
TCE TRICHLOROETHENE

AL ACTION LEVEL: APPLICABLE FEDERAL & STATE
GROUNDWATER DRINKING WATER STANDARD

B ANALYTE WAS DETECTED IN ASSOCIATED BLANK

J ESTIMATED

< NOT DETECTED IN EXCESS OF STATED
METHOD DETECTION LIMIT

REINJECTION TRENCH AND MANHOLE

NOTES:

BOLDED VALUES EXCEED ACTION LEVEL

* VALUES MARKED WITH ASTERISK ARE THE ARITHMETIC
MEAN OF NORMAL AND DUPLICATE SAMPLES

ALL CONCENTRATIONS PRESENTED IN ug/L

SINCE JUNE 2004, DIFFUSION BAG SAMPLING WAS PERFORMED:
T-TOPMOST BAG; B-BOTTOM BAG

FOR MW-19D IN JUNE 2004, DIFFUSION BAG & LOW FLOW (LF) SAMPLES
WERE COLLECTED AS PER USEPA'S REQUEST.

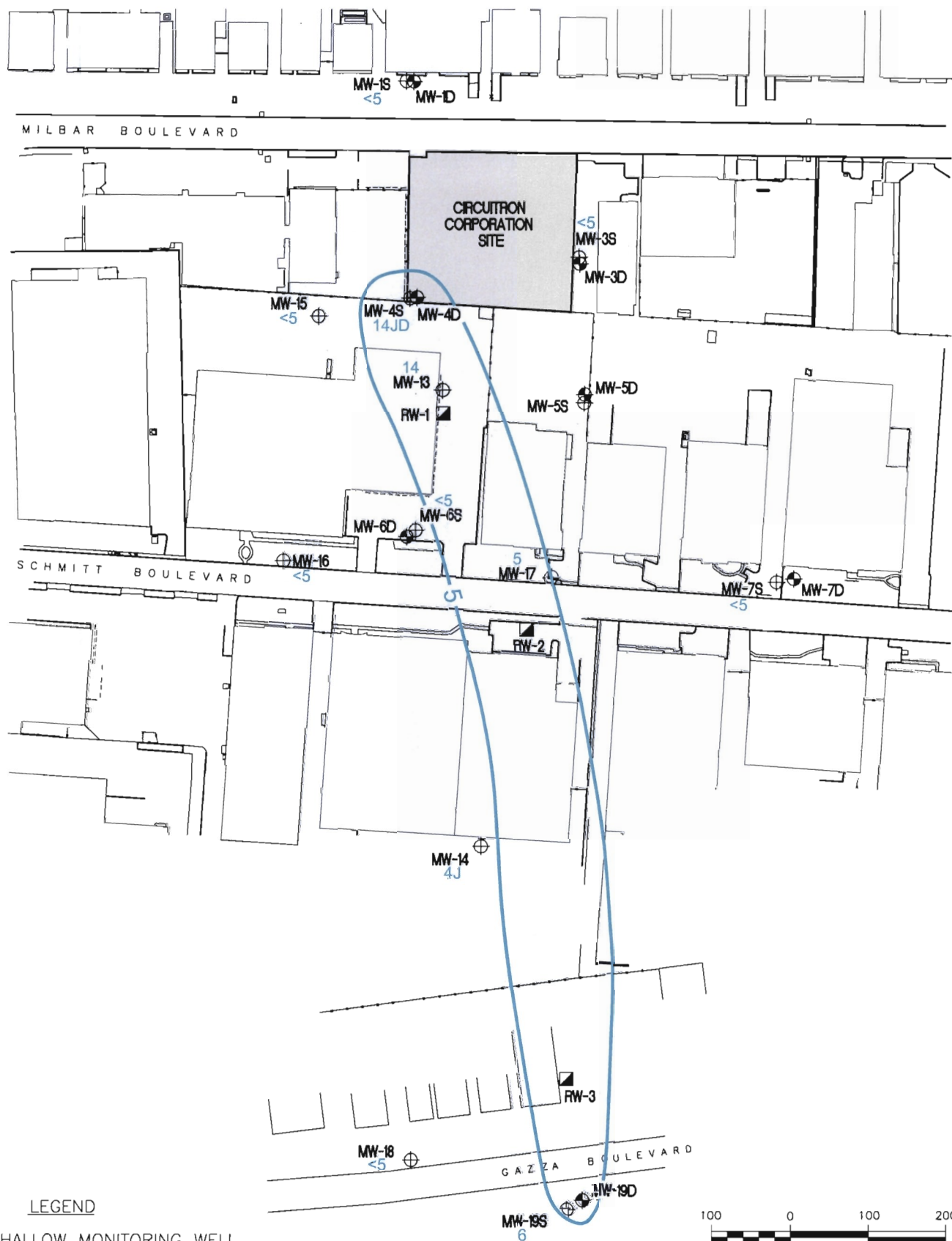
Volatile Organic Compound Concentrations Exceeding Screening Criteria Deep Wells

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-2A.DWG

DATE: 10-29-08 FIGURE #: 4-2a

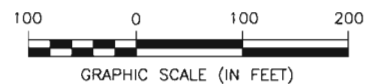


LEGEND

- ⊕ 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



1,1 DCA June 2000 Isoconcentration Map (ug/L) Upper Glacial Aquifer

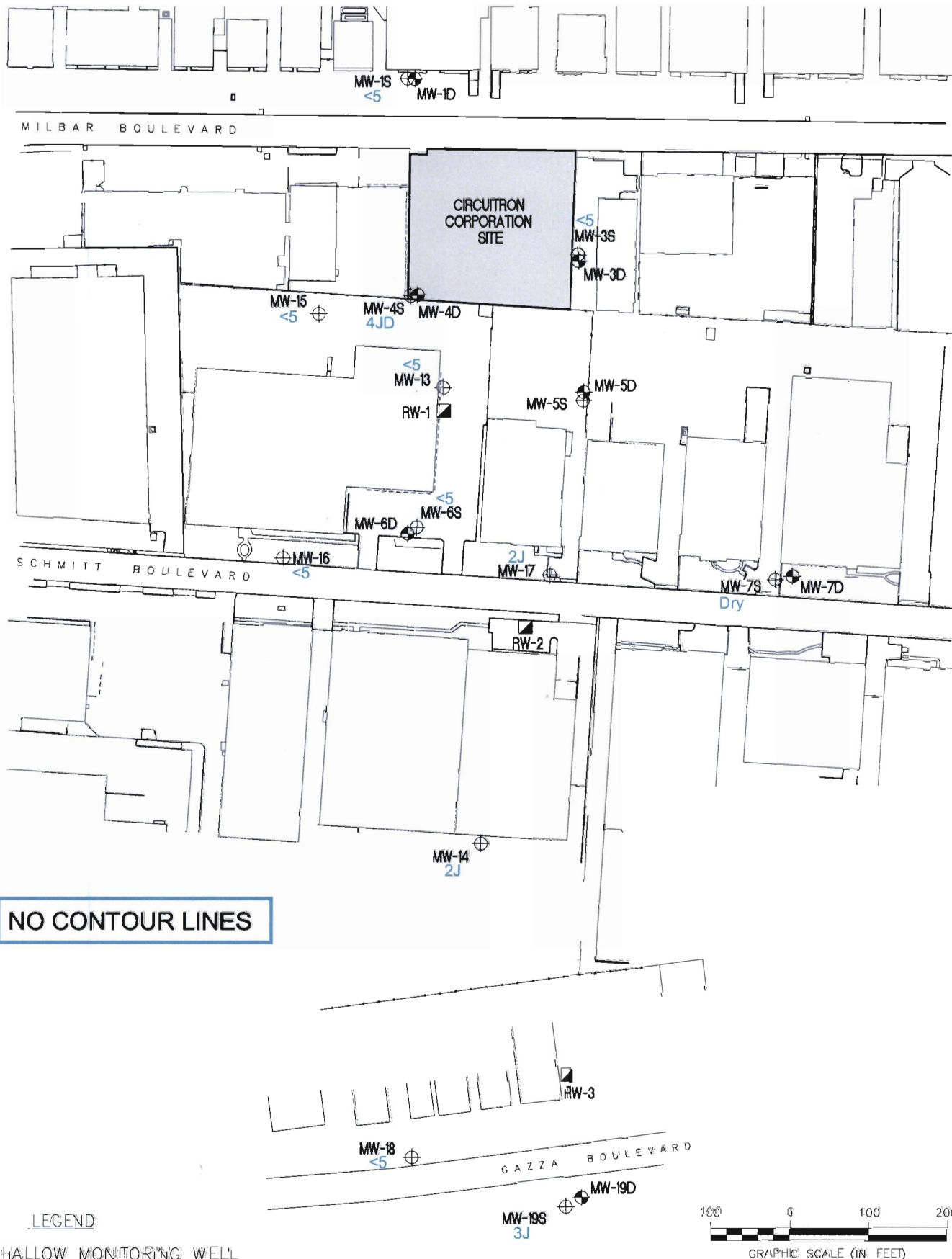
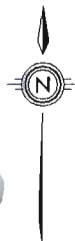
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-3a.DWG

DATE: 4-29-03

FIGURE #: 4-3a



NO CONTOUR LINES

LEGEND

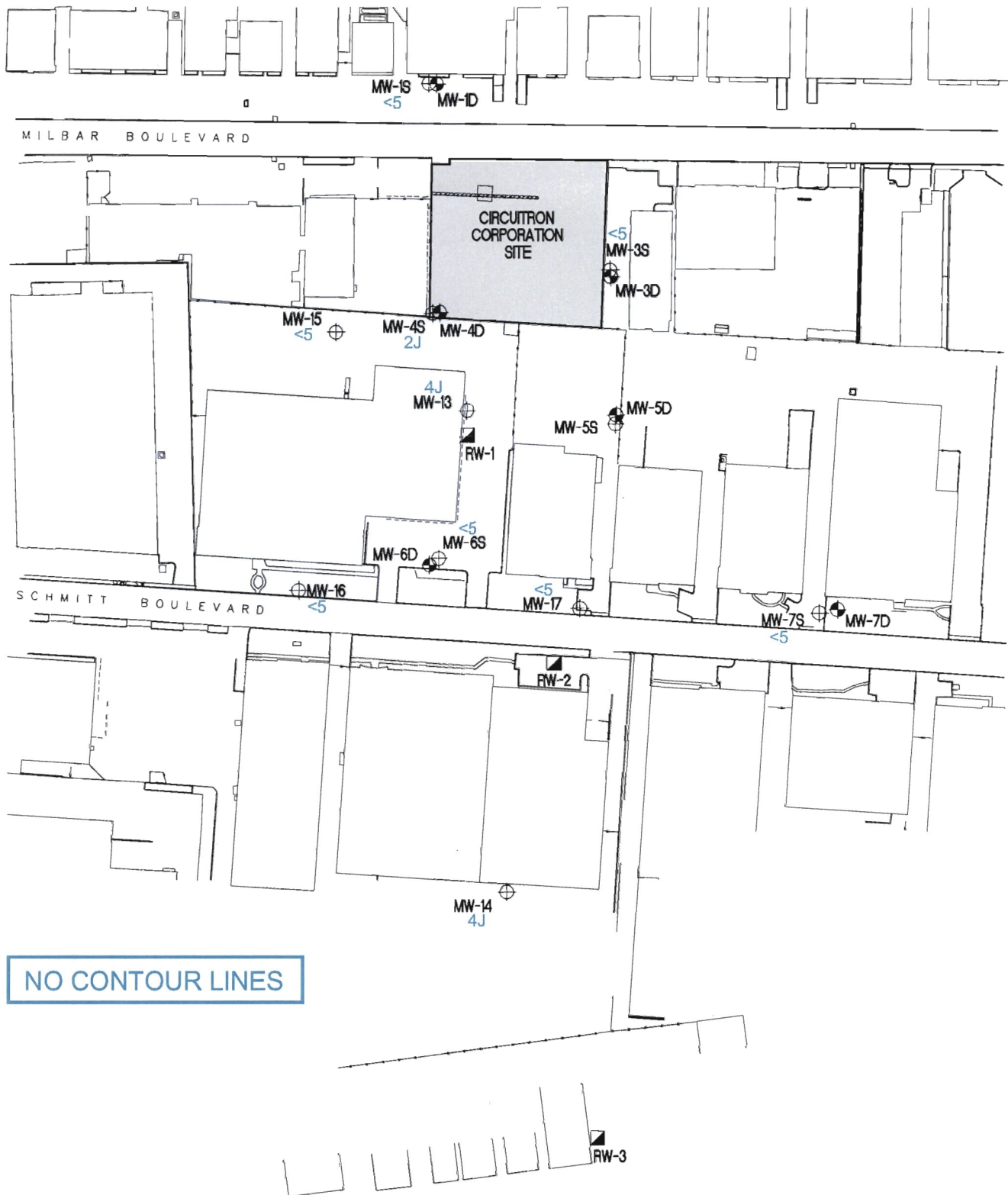
- ⊕ SHALLOW MONITORING WELL
- ⊙ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- <5 1,1 DICHLOROETHANE (1,1 DCA)
CONCENTRATION VALUE (ug/L)

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



NO CONTOUR LINES

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- ▣ RECOVERY WELL

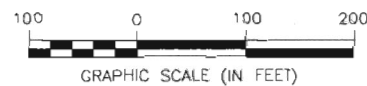
— REINJECTION TRENCH AND MANHOLE

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

QUALIFIERS:

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

GAZZA BOULEVARD



1,1 DCA April 2003

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

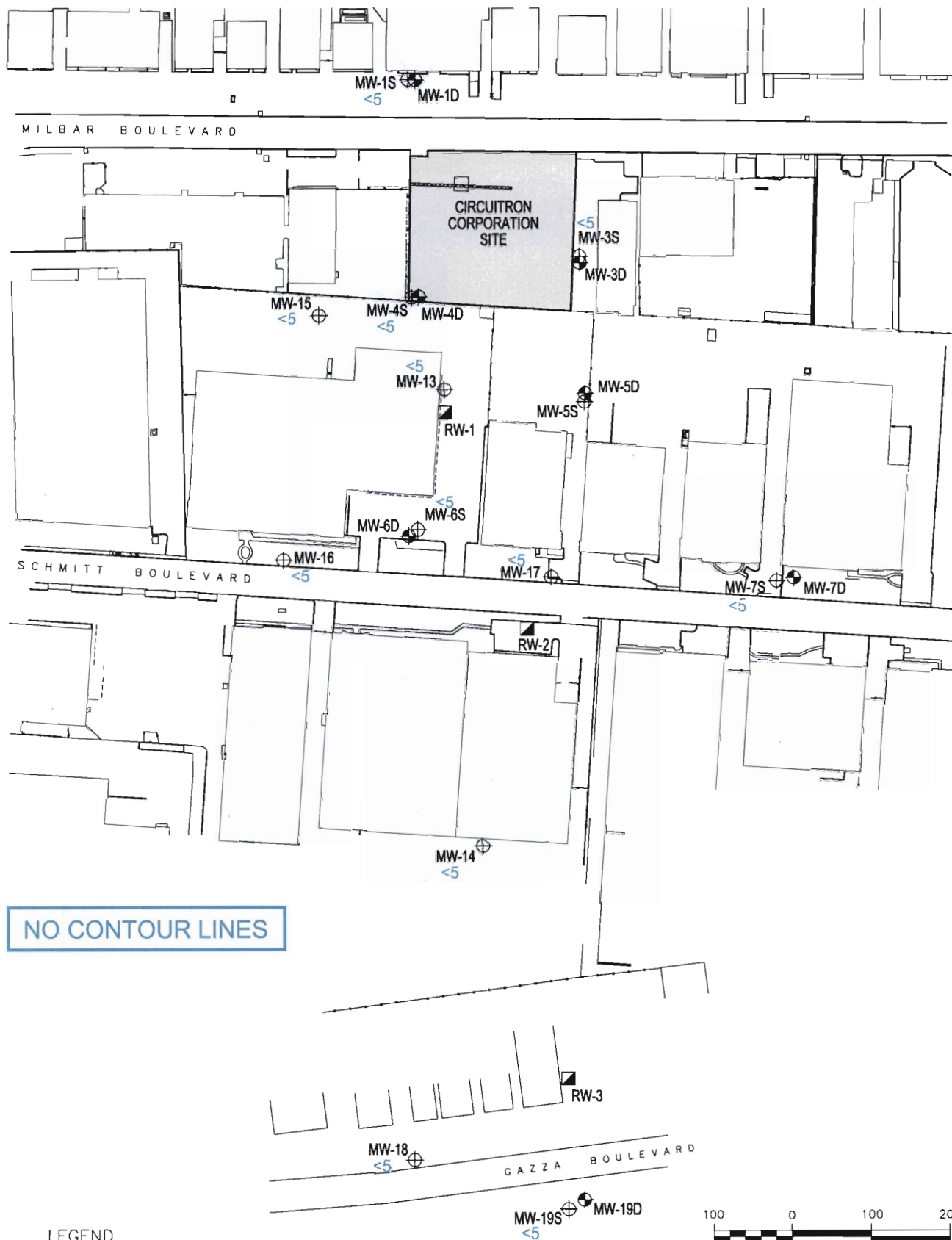
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-3c.DWG

DATE: 2-2-04

FIGURE #: 4-3c



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

1,1 DCA June 2004

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

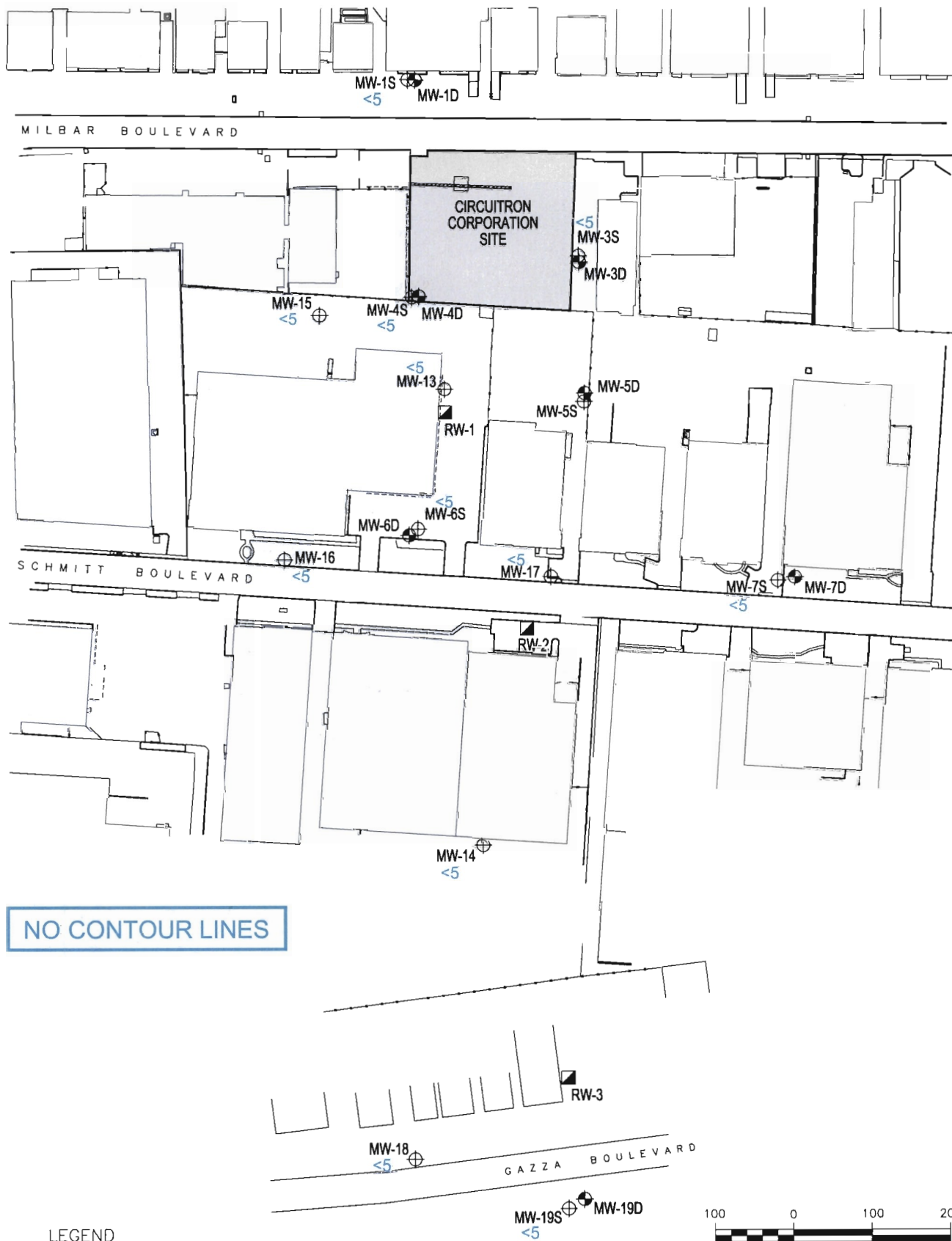
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-3d.DWG

DATE: 8-20-04

FIGURE #: 4-3d



NO CONTOUR LINES

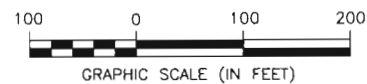
LEGEND

- ⊕ 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



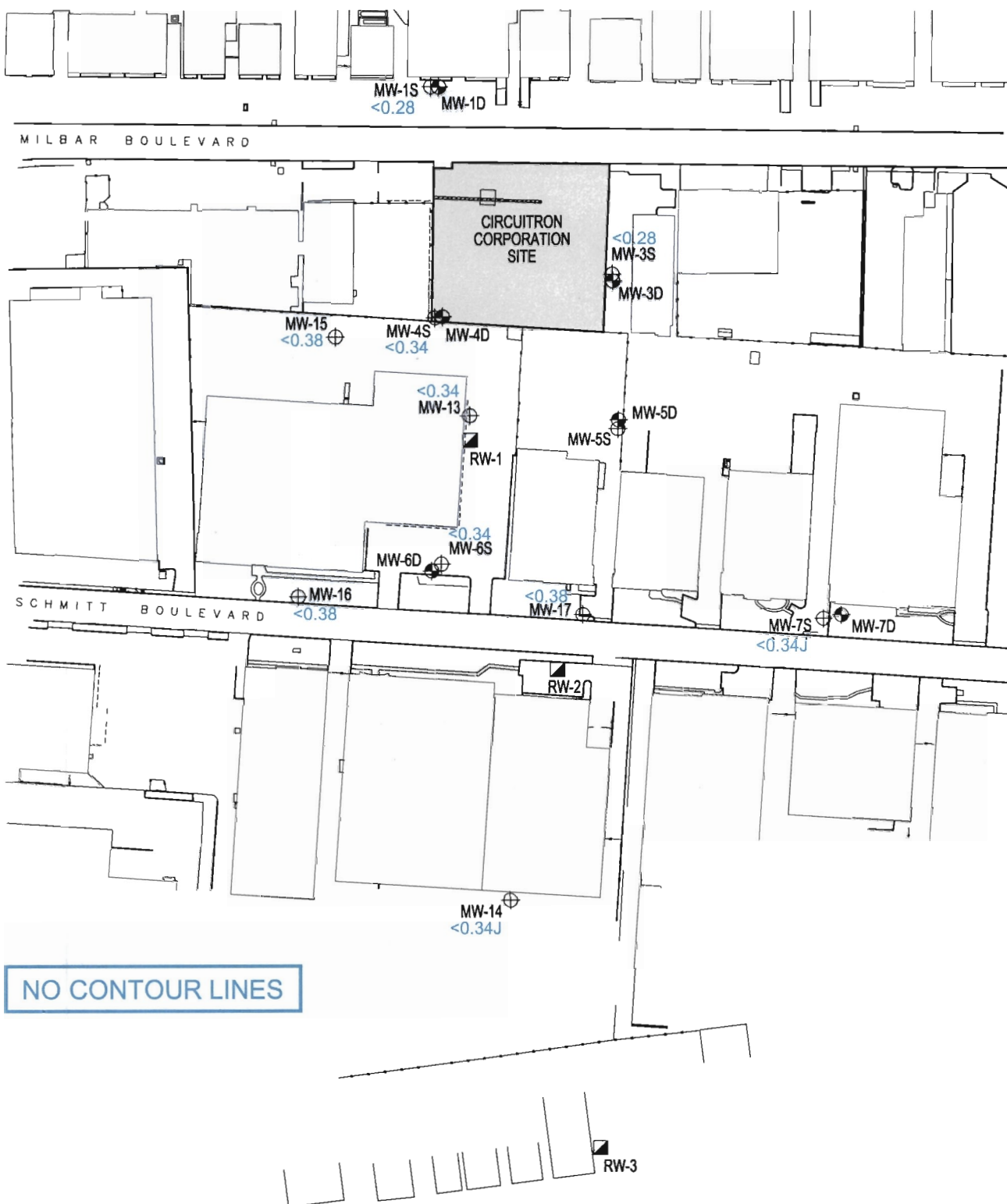
1,1 DCA June 2005
Isoconcentration Map (ug/L)
Upper Glacial Aquifer
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-3e.DWG

DATE: 9-7-05

FIGURE #: 4-3e



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

GAZZA BOULEVARD

MW-19S
<0.28

MW-19D

100 0 100 200

GRAPHIC SCALE (IN FEET)

1,1 DCA July 2006

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

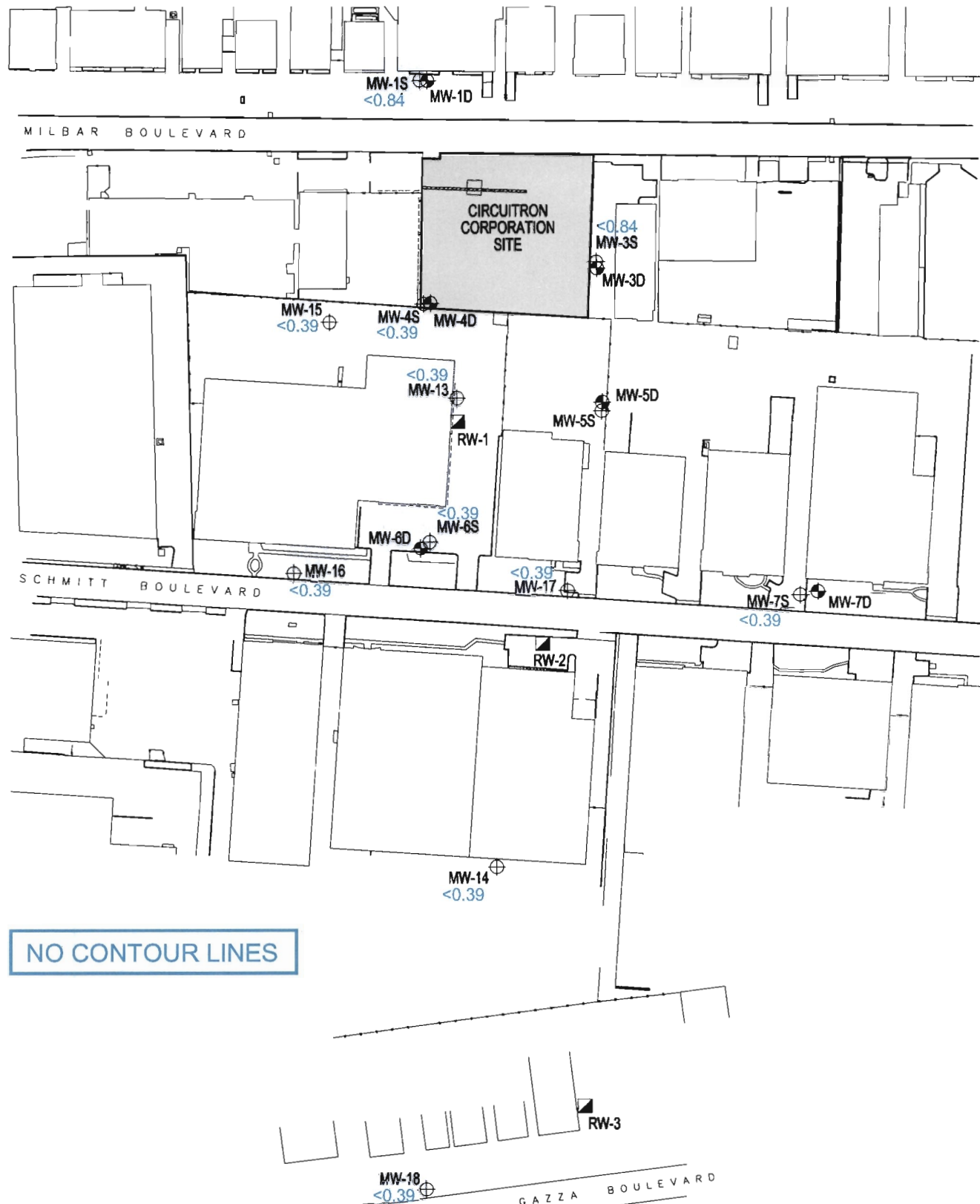
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-3f.DWG

DATE: 9-11-06

FIGURE #: 4-3f



LEGEND

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



REINJECTION TRENCH
AND MANHOLE

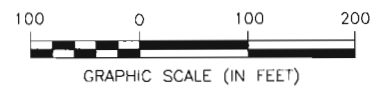
4

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

— 1,1 DCA CONCENTRATION CONTOUR LINE

QUALIFIERS:

- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY



1,1 DCA August 2007

**Isoconcentration Map (ug/L)
Upper Glacial Aquifer**

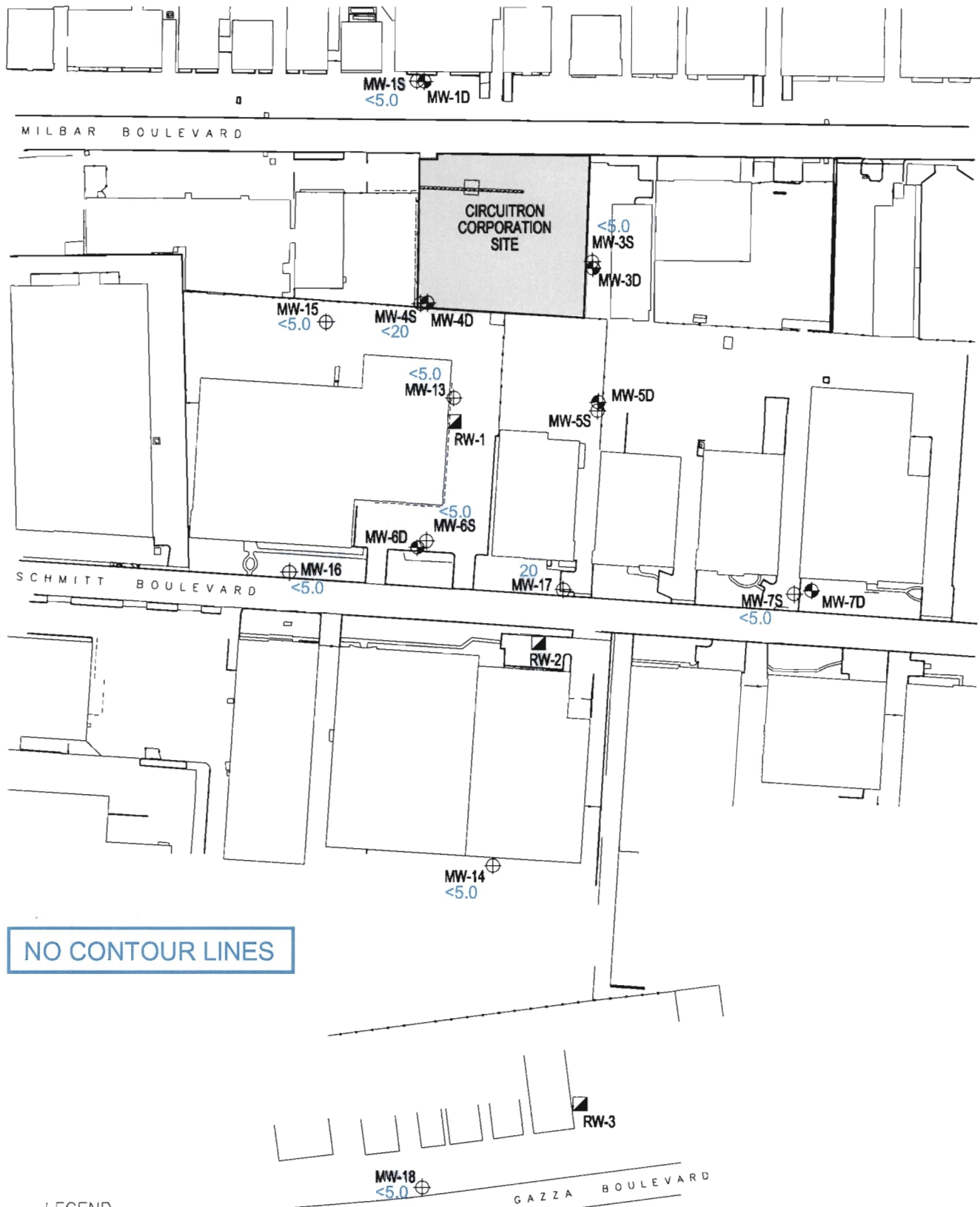
**Circuitron Corporation Superfund Site
East Farmingdale, New York**

URS

FILENAME: FIG 4-3g.DWG

DATE: 10-31-07

FIGURE #: 4-3g



NO CONTOUR LINES

LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- ▣ RECOVERY WELL

--- REINJECTION TRENCH AND MANHOLE

20 1,1 DICHLOROETHANE (1,1 DCA)
CONCENTRATION VALUE (ug/L)

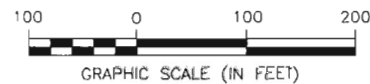
— 1,1 DCA CONCENTRATION CONTOUR LINE

QUALIFIERS:

J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

MW-19S
<5.0

MW-19D



1,1 DCA July 2008

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

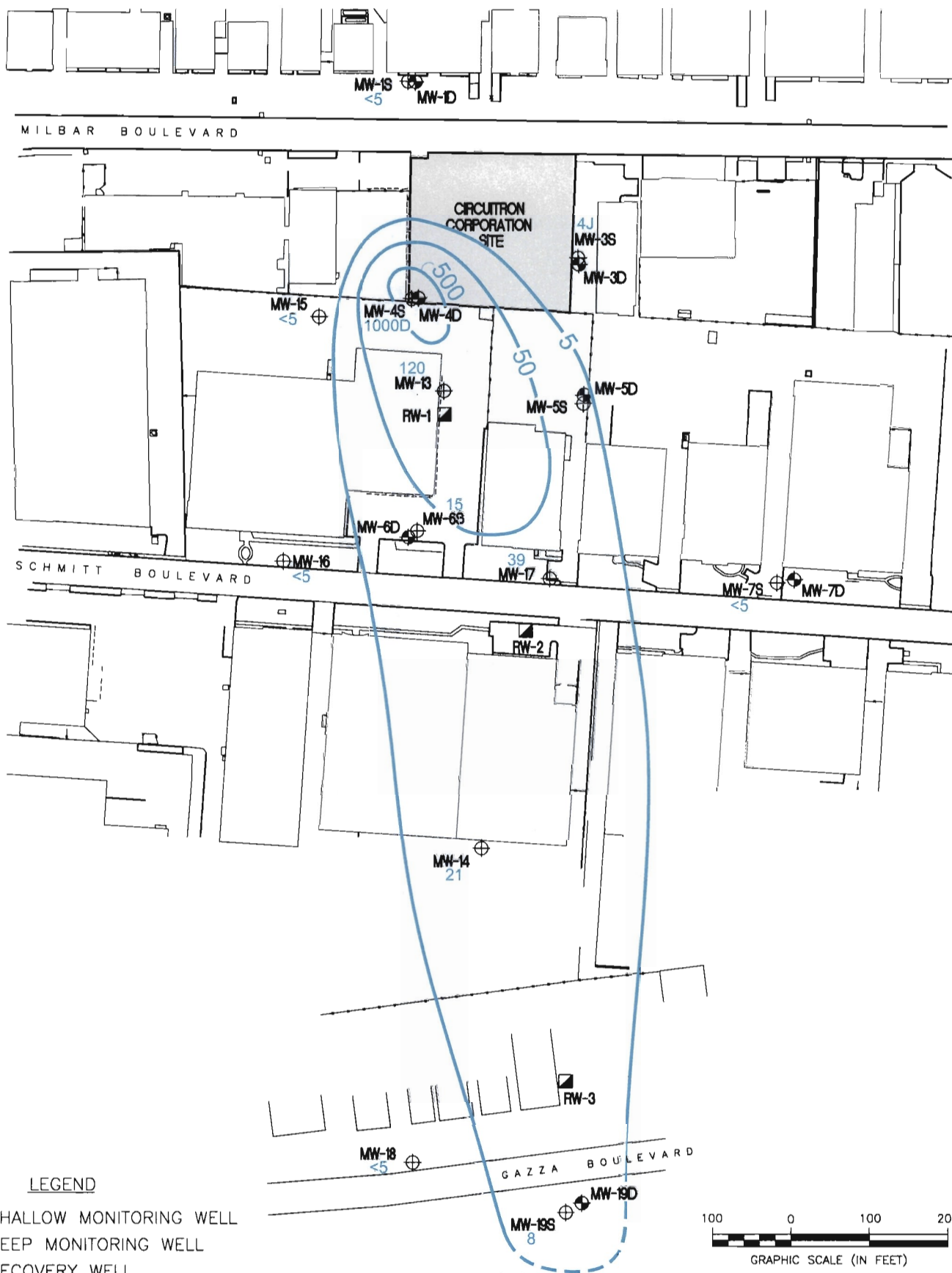
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-3h.DWG

DATE: 10-14-08

FIGURE #: 4-3h

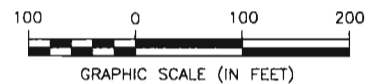


LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- ▣ RECOVERY WELL
- 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 2000

Isoconcentration Map (ug/L) Upper Glacial Aquifer

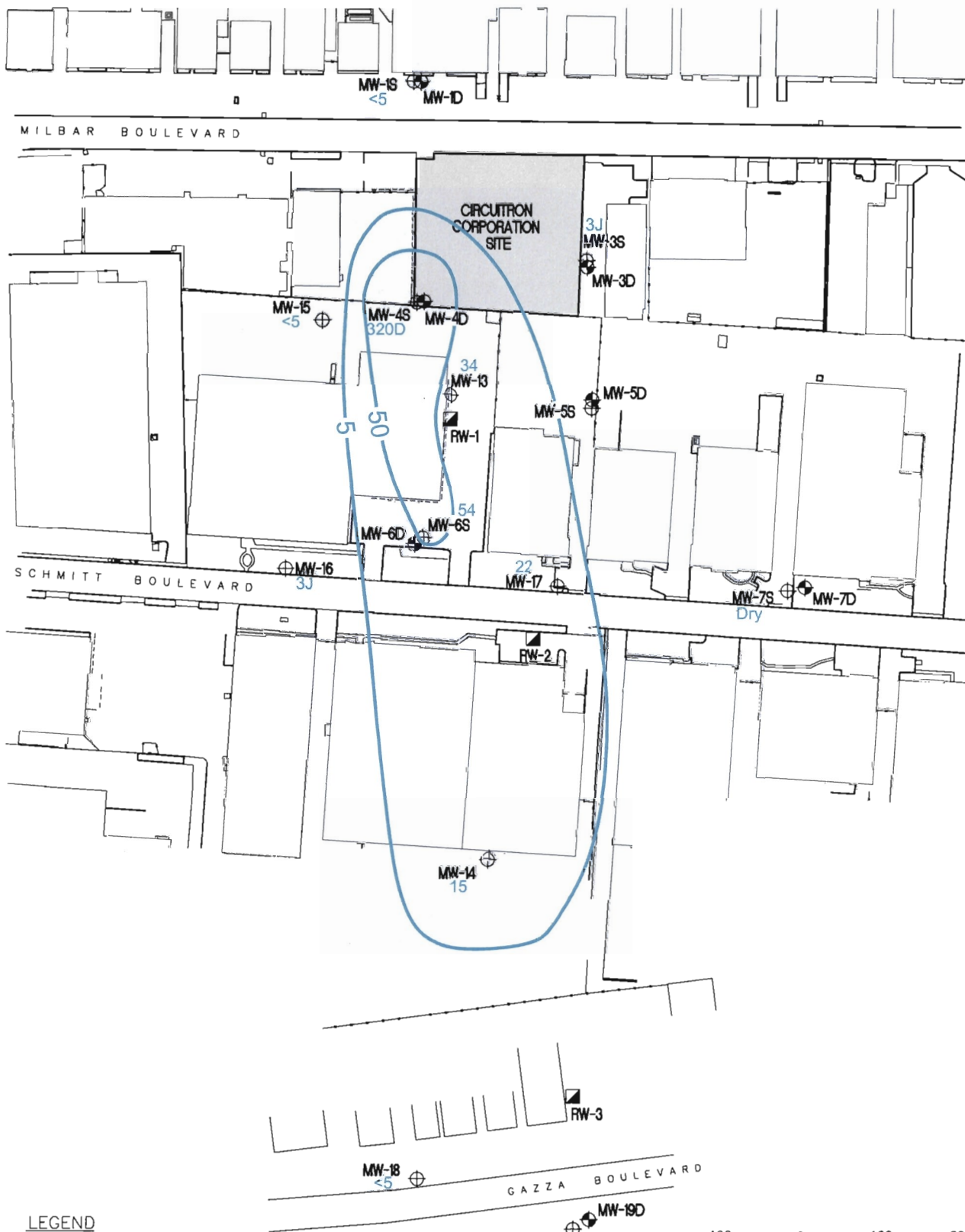
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-4a.DWG

DATE: 4-29-03

FIGURE #: 4-4a



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

1,1,1 TCA JANUARY-FEBRUARY 2002

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

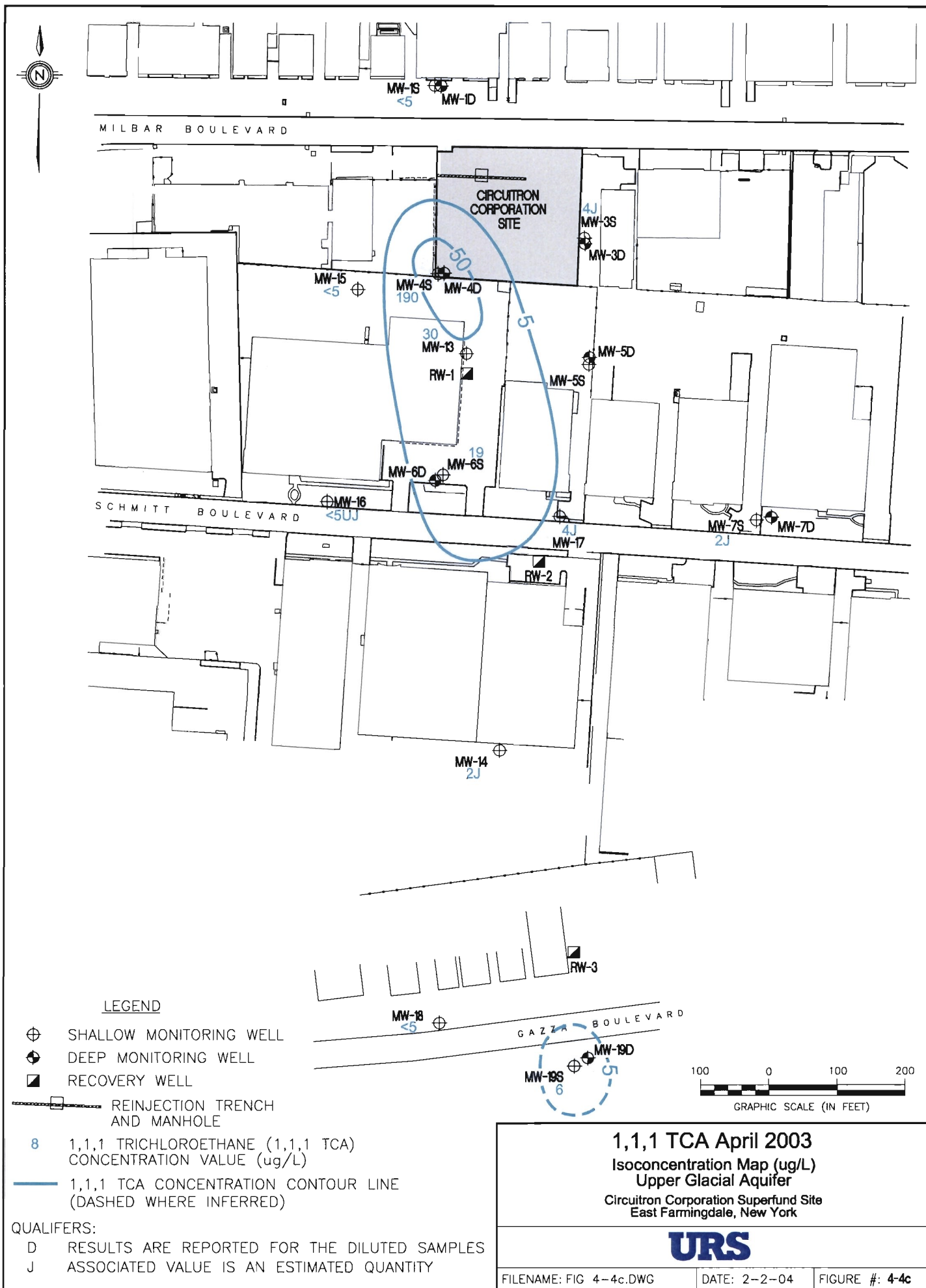
Circuitron Corporation Superfund Site
East Farmingdale, New York

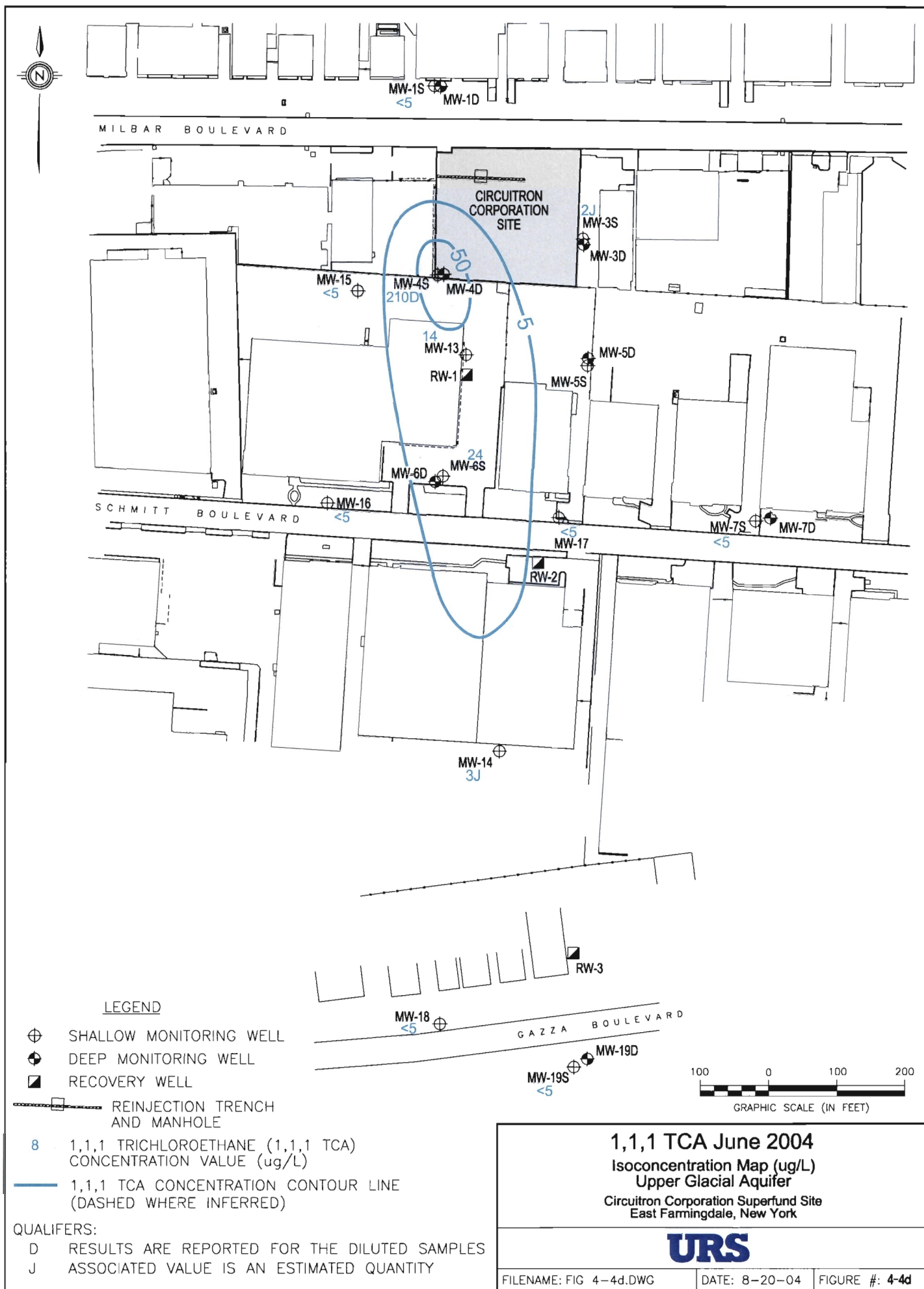
URS

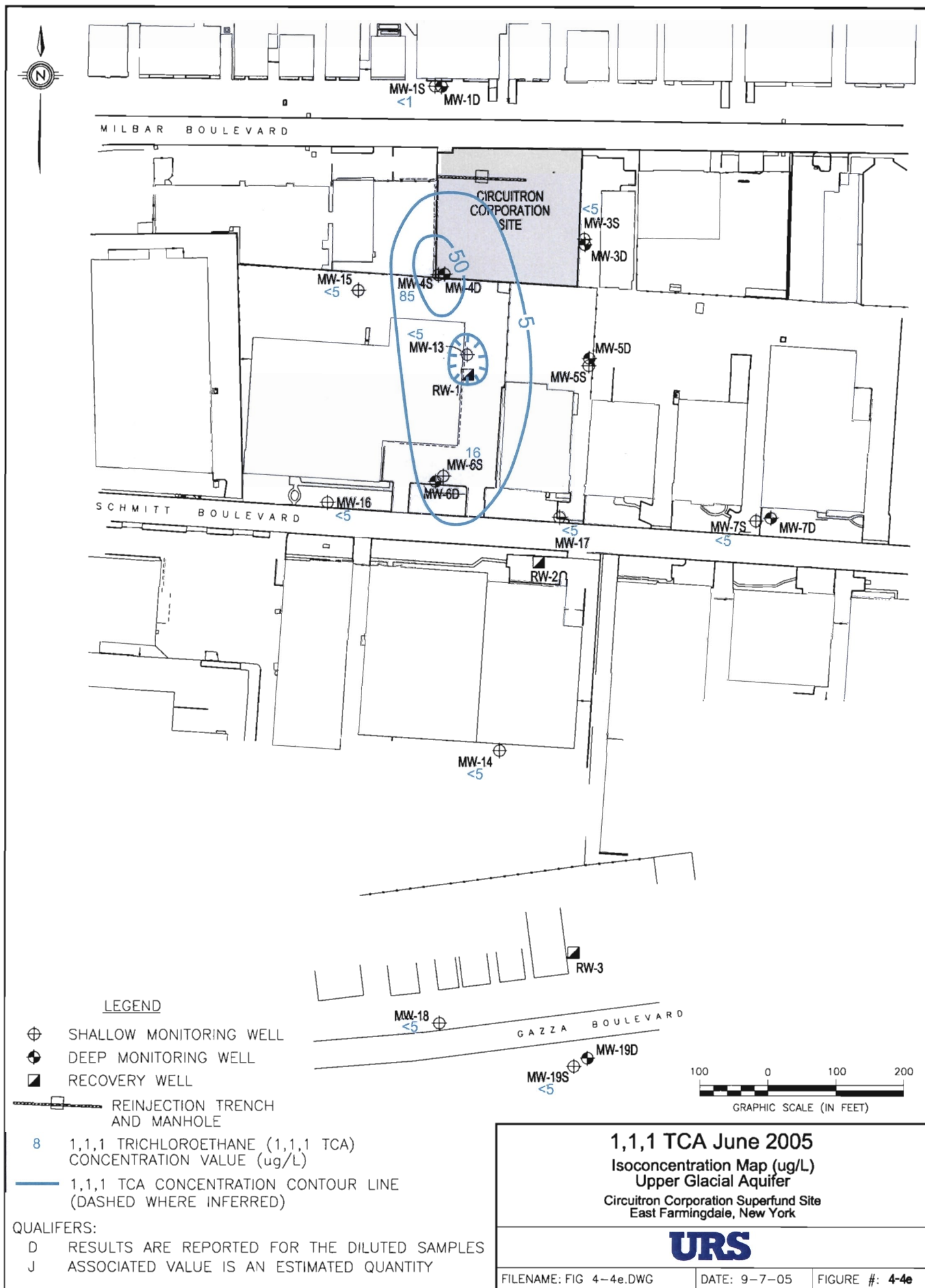
FILENAME: FIG 4-4b.DWG

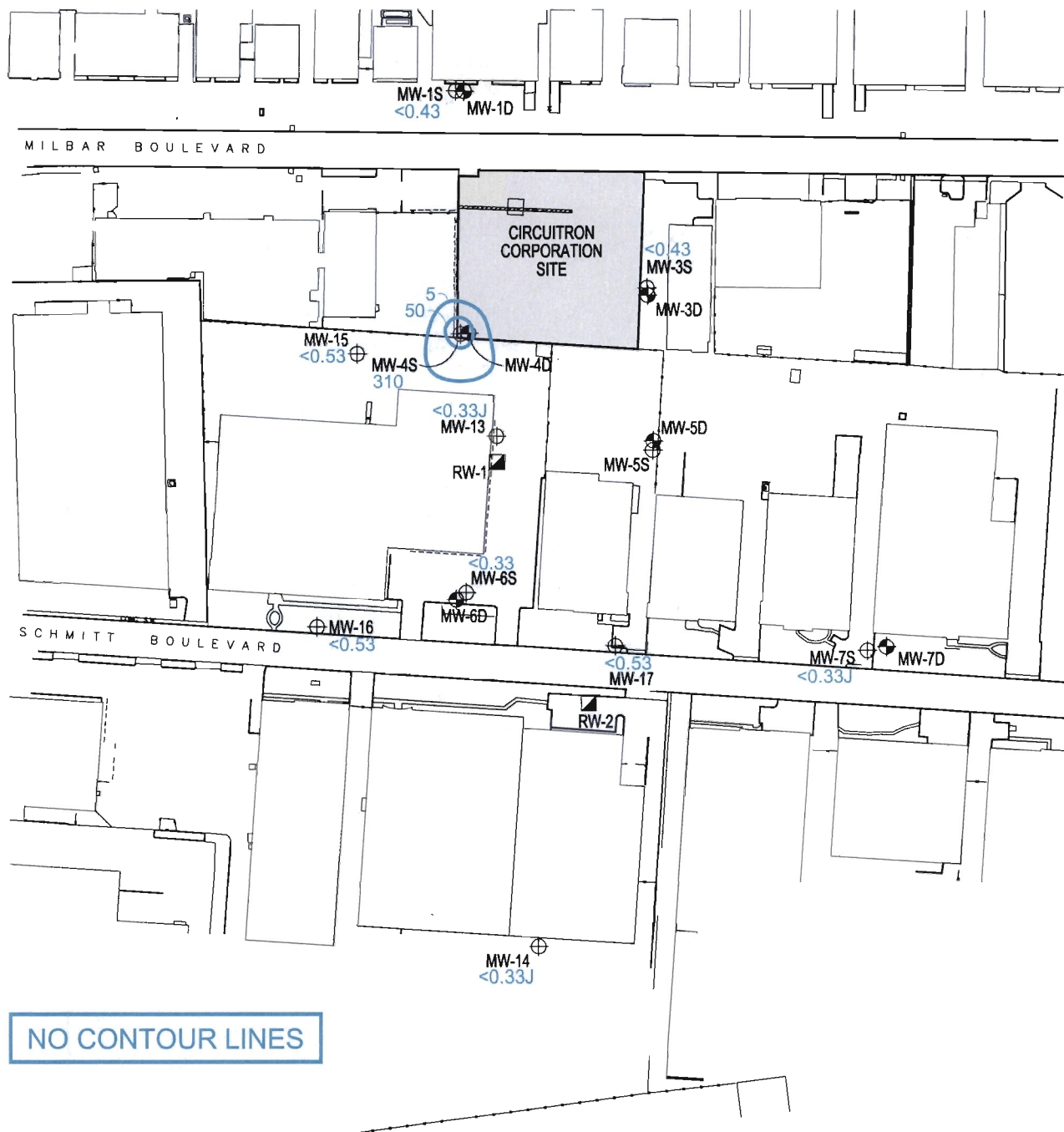
DATE: 4-29-03

FIGURE #: 4-4b









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)

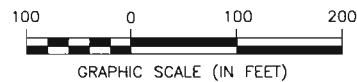
QUALIFIERS:

- J ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

GAZZA BOULEVARD

MW-19S
<0.43

MW-19D



1,1,1 TCA July 2006

**Isoconcentration Map (ug/L)
Upper Glacial Aquifer**

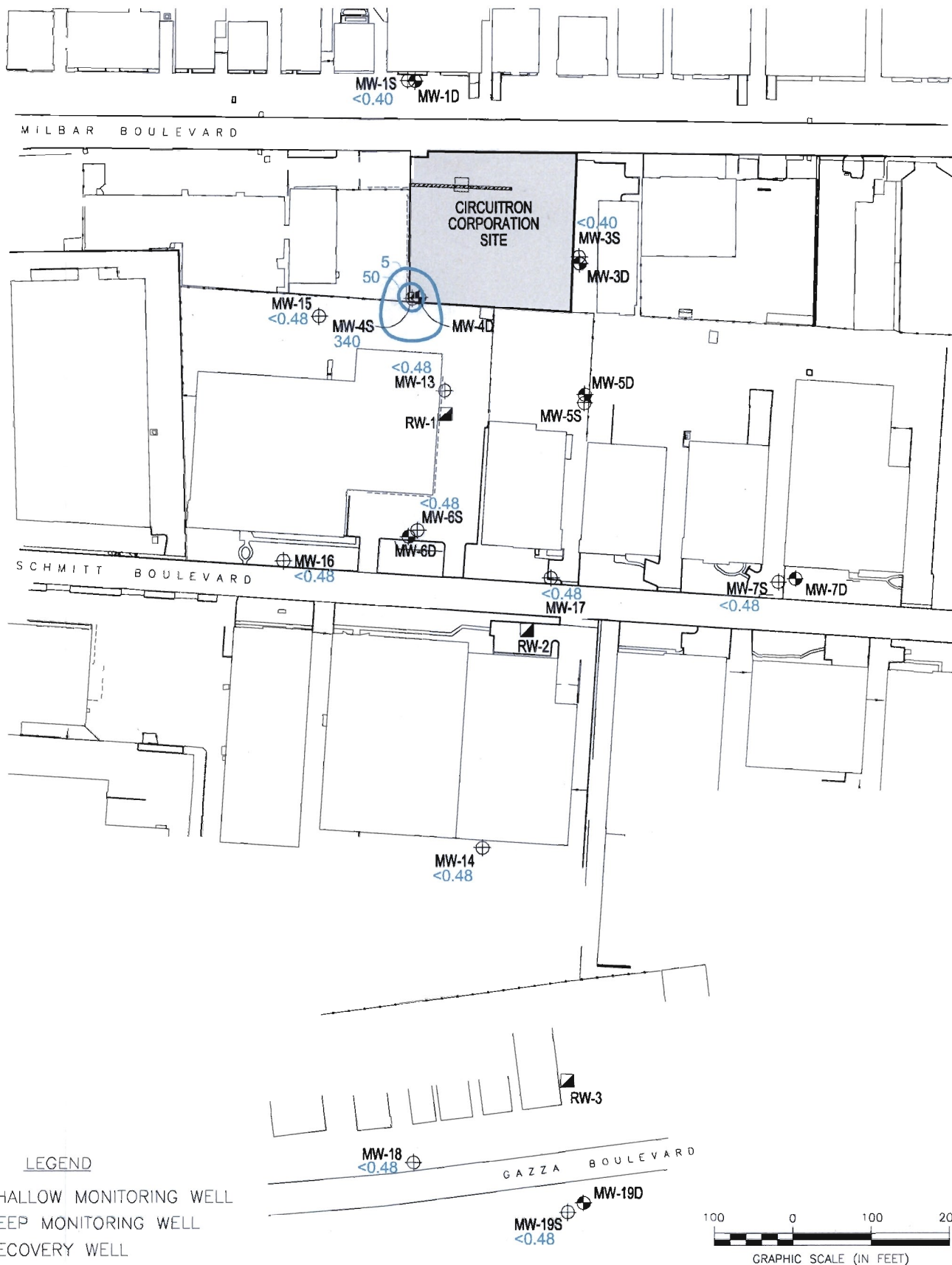
**Circuitron Corporation Superfund Site
East Farmingdale, New York**

URS

FILENAME: FIG 4-4f.DWG

DATE: 9-11-06

FIGURE #: 4-4f



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

1,1,1 TCA August 2007

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

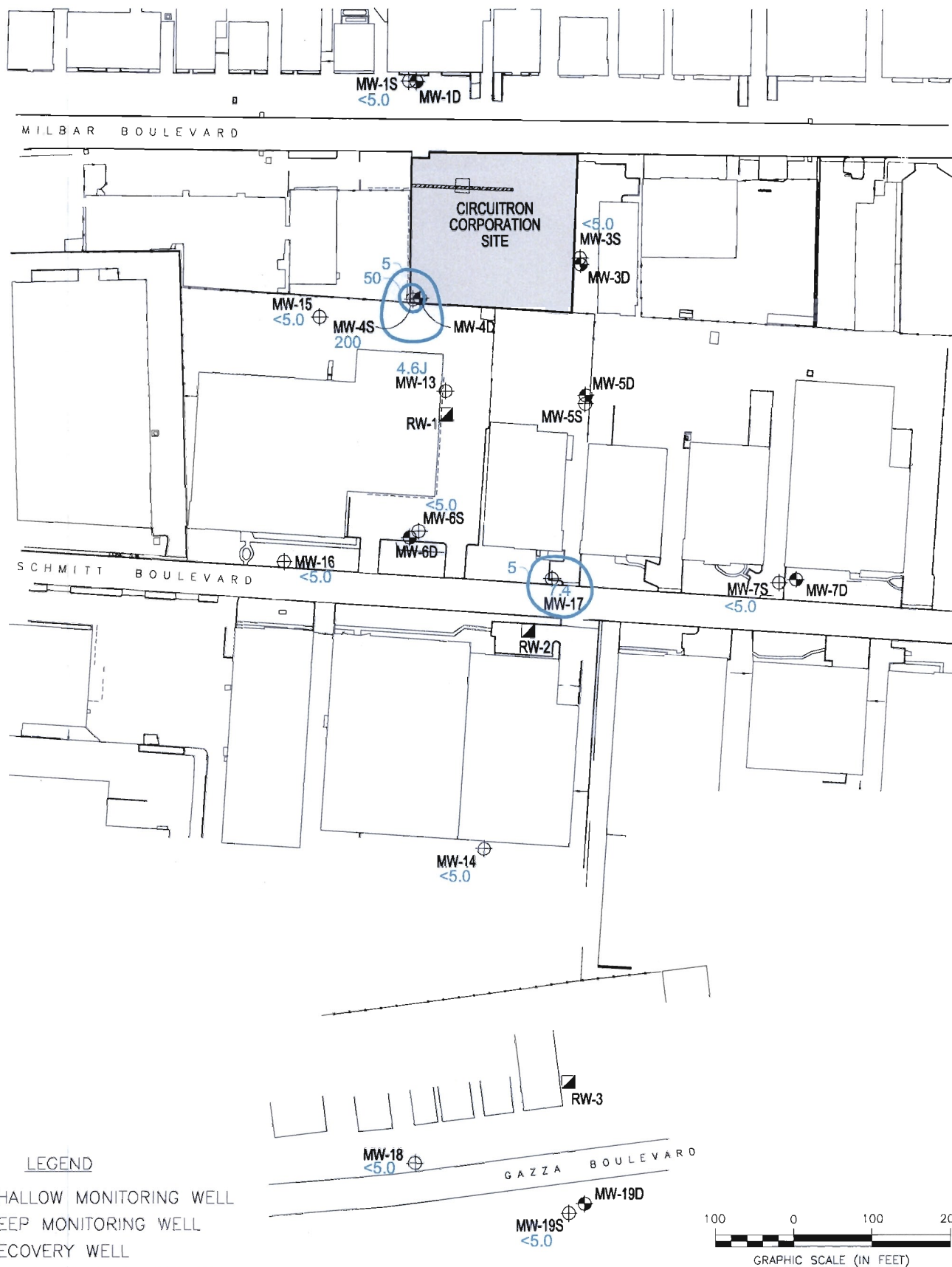
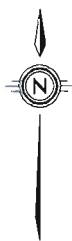
Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-4g.DWG

DATE: 11-29-07

FIGURE #: 4-4g



LEGEND

- ⊕ SHALLOW MONITORING WELL
- ⊗ DEEP MONITORING WELL
- ▣ RECOVERY WELL

— REINJECTION TRENCH AND MANHOLE

7.4 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

1,1,1 TCA July 2008

Isoconcentration Map (ug/L)
Upper Glacial Aquifer

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

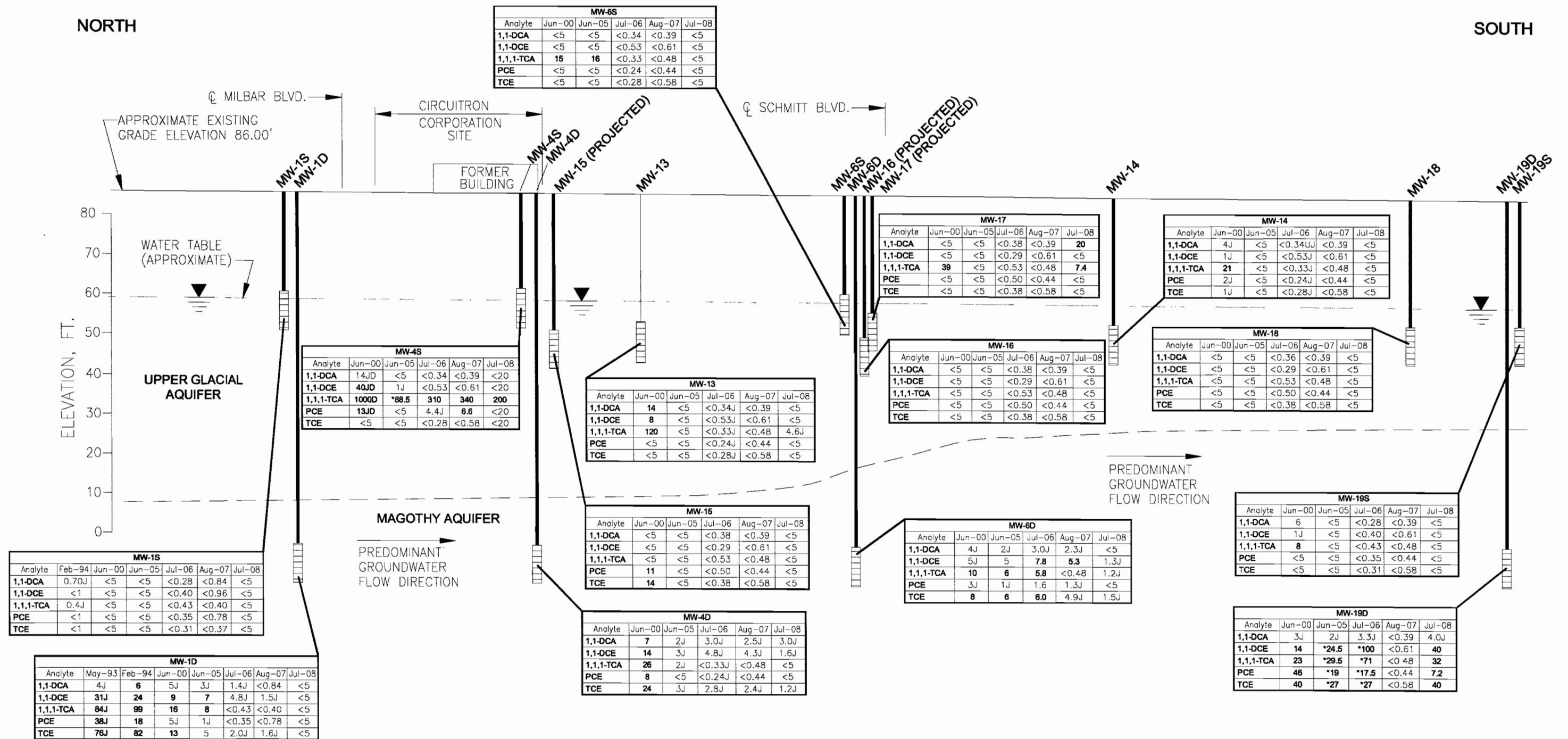
FILENAME: FIG 4-4h.DWG

DATE: 10-14-08

FIGURE #: 4-4h

NORTH

SOUTH



LEGEND:

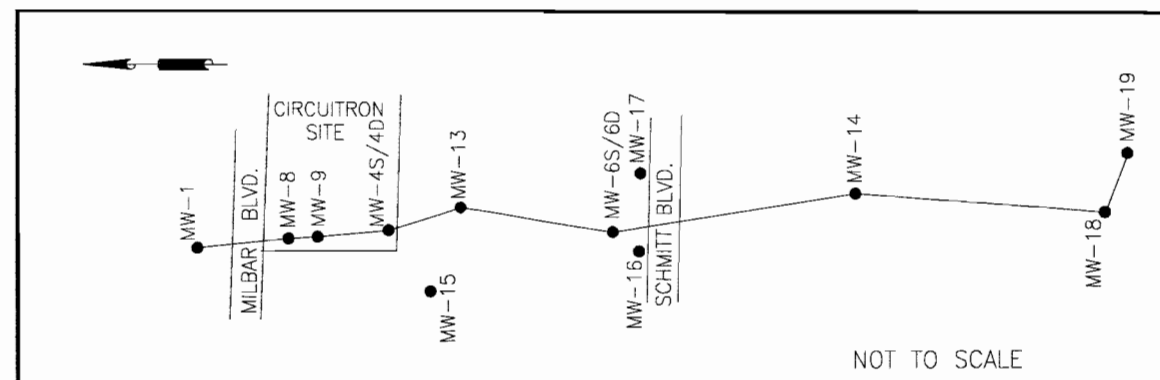
- 200 BOLDDED VALUES EXCEED ACTION LEVEL
- UNCONFORMABLE GEOLOGIC FORMATION CONTACT
- MONITORING WELL SCREENED INTERVAL
- 1,1-DCE 1,1 DICHLOROETHENE (ug/L)
- 1,1,1-TCA 1,1,1 TRICHLOROETHANE (ug/L)
- PCE TETRACHLOROETHENE (ug/L)
- TCE TRICHLOROETHENE (ug/L)
- J ESTIMATED CONCENTRATION
- < NOT DETECTED IN EXCESS OF STATED METHOD DETECTION LIMIT

NOTES:

- * VALUES MARKED WITH ASTERISK ARE THE ARITHMETIC MEAN OF NORMAL AND DUPLICATE SAMPLES

SINCE JUNE 2004, DIFFUSION BAG SAMPLING WAS PERFORMED:
T-TOPMOST BAG; B-BOTTOM BAG

FOR MW-4S IN JUNE 2004, DIFFUSION BAG (DB) & LOW FLOW (LF) SAMPLES WERE COLLECTED AS PER USEPA'S REQUEST.



Cross-section

Circuitron Corporation Superfund Site
East Farmingdale, New York

URS

FILENAME: FIG 4-5.DWG

DATE: 10-14-08

FIGURE #: 4-5

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 is altered during remediation system operation. During system operation, shallow groundwater contamination located within the zone of capture is directed to the groundwater extraction wells and treatment system for processing. The groundwater flow paths from August 2002, March 2004, June 2005, June 2006, July 2007 and July 2008 (estimated) also indicate that the observed zone of capture during that period extends beyond the modeled capture zone to include well MW-16.

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 groundwater from a site well and not observed as an exceedance in groundwater obtained from the upgradient well prior to 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 groundwater from a site well and not observed as an exceedance in groundwater obtained from the upgradient well prior to 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 groundwater from the deep aquifer unless it is determined to be site-related in 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, July 2006, August 2007, and July 2008 have declined considerably over the Performance Monitoring period as compared to baseline values reported in June 2000.
- b) Both 1,1-DCA and 1,1,1-TCA were observed as an exceedance in groundwater from downgradient well MW-19S sampled prior to 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 groundwater sampled from this well during any sampling events after the startup of the remediation system.
- c) As of July 2008, the only shallow wells which exhibited levels of VOCs exceeding groundwater standards (i.e. >5 µg/l) are wells MW-4S and -17. Exceedances of 1,1,1-TCA and 1,1-DCA were found in the groundwater from well MW-17 at levels exceeding 5 µg/l and are believed to be attributable to the suspension of groundwater extraction activities during the completion of the SVE system pilot test operation. Only 1,1,1-TCA was detected in groundwater from well MW-4S (note detection limit for this July 2008 sample from MW-4S were elevated at 20 µg/L).
- d) Overall, the collective data from the Performance Monitoring period 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 groundwater from upgradient well MW-1D, sampled prior to start-up of the remediation system, indicating that these compounds are not site-related. VOCs were consistently detected in MW-1D at decreasing concentrations until 2008 when no VOCs were detected (detection limits were 5 ug/l). These same compounds have had multiple exceedances in groundwater from downgradient well MW-19D. These results suggest that these chemicals are no longer being released into the deep aquifer upgradient of the site and their attenuation and degradation continue as the non-site related deep groundwater plume migrates beneath and across the site.

In addition, multiple exceedances of 1,2-DCE were observed in groundwater from downgradient well MW-19D through July 2006. 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 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 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) located in the deeper portion of the aquifer, which was determined to be not site-related.

5.2.1 Water Quality Trends Over Time

In general, the time-series graphs and review of analytical results indicate no apparent change in concentrations of VOCs detected in groundwater from the shallow and deep wells over the Performance Monitoring Period and that the remediation system is effective in mitigating the VOC compounds. Trends over time in the levels of VOCs observed as exceedances in groundwater from downgradient well MW-19D, indicate attenuation and degradation of these compounds continue as the non-site related deep groundwater plume migrates across the site. Continued monitoring will be conducted to evaluate trends in groundwater concentrations.

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. However, it is noted that the current infrequent operation of the groundwater extraction and treatment system, due to the ongoing USEPA SVE pilot testing in the vicinity of MW-4S, may be attributable to the resulting detections of VOCs in monitoring well MW-17 for the first time in several years. It is further noted that during the pilot test period, the Circuitron site groundwater extraction and treatment system is being operated approximately four to six hours every two weeks.

Section 7.0

References

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, July 18, 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

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	Apr-03	Jun-04	Jun-05	Jul-06	Aug-07	Jul-08
Shallow	MW-1S	16		5		56	4	8		5					
Shallow	MW-3S	20	13	5	7	8	8	6	*4	4	2	2			
Shallow	MW-4S	1155	915	720	279	93	328	347		219	**239	*89	314.4	346.6	200
Shallow	MW-6S	15	374	119	89	*112	107	64		19	**25	16			
Shallow	MW-7S		*2	*2			11					1			
Shallow	MW-13	154	397	124	47	41	31	35	*14	34	**10			11.5	4.6
Shallow	MW-14	30	10	17	13	14	15	21	1	6	**3		1.3	1.3	
Shallow	MW-15	68	*1	*35	29		5	*2							
Shallow	MW-16				*		1	3							
Shallow	MW-17	44	71	37	11	14	32	26	8	4					27.4
Shallow	MW-18			13	13	*	10					5			
Shallow	MW-19S	17	34	21	14	13	16	5	5	10					
Deep	MW-1D	61	52	45	*41	7	*53	57	45	27	**26	24	8.2	3.1	
Deep	MW-3D	5	2	7	4	5	5	8	1	1			1.0		
Deep	MW-4D	*94	57	49	50	41	38	43	37	*23	**34	10	10.6	9.2	5.8
Deep	MW-5D	*10	30	4	7	4	8								
Deep	MW-6D	30	24	35	14	20	31	17	37	25	**28	20	25.3	14.8	4
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		*130.8

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.

Appendix A-2
Groundwater
Sampling Results by Well

Appendix A-2
Groundwater Sampling Results by Well

Groundwater Sampling Analytical Results for
MW-1D

Analyte	NY Water Quality Criteria	May 1993*	Feb 1994*	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	Apr - May 2001 Duplicate	July - Aug 2001	Oct 2001	Oct 2001 Duplicate	Jan - Feb 2002	July - Aug 2002	Apr-03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	4.00 J	6.00	5 J	5 J	4 J	4 J	4 J	< 5	4 J	4 J	4 J	4 J	3J	3J	3J	3J	1.4J	<0.84	<5.0
1,1 Dichloroethene	5	31.00 J	24.00	9	10	7	8	8	< 5	10	10	11	10	7	7	7	7	4.8J	1.5J	<5.0
1,1,1 Trichloroethane	5	84.00 J	99.00	16	14	13	13	13	<5	16	17	14	12	8	7	7	8	<0.43	<0.40	<5.0
1,2 Dichloroethene (total)	5	4.00 J	4.90	1 J	2 J	<5	1 J	1 J	<5	1 J	1 J	1 J	2 J	1J	2J	1J	<5	<0.44	<0.84	<5.0
Acetone	NP	5.00 R	5.00 R	8 JB	<10	3 JB	<10	<10	<10	<10	<10	<10	<10	<10	<10UJ	<10UJ	<10UJ	<16U	<8.7	<61 U
Chloroform	7	3.00 UJ	1.00 U	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24	<0.53	<5.0
Methylene Chloride	5	2.00 R	2.00 U	4 JB	<5	4 JB	<5	<5	7 J	5 B	5 JB	10 B	<5	<5J	<4U	<4U	<5	<0.91	<1.7	<5.0
Tetrachloroethene	5	38.00 J	18.00	5 J	6	4 J	5	5	<5	5	6	6	5	3J	2J	1J	1J	<0.35	<0.78	<5.0
Toluene	5	1.00 UJ	1.00 U	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.31	<0.41	<5.0
Trichloroethene	5	76.00 J	82.00	13	15	10	10	10	<5	11	11	11	12	5J	5	5	5	2.0J	1.6J	<5.0
Turbidity	5	NR	NR	35.5	NR	580	0	0	0.0	NR	NR	34.7	0	12	NR	NR	NR	NR	NR	NR
Antimony	3	17.90U	28.30 UJ	<2.2	NR	<2.3	NR	NR	<1.9	NR	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	2.30 U	1.30 UJ	<3.2	NR	<2.4	NR	NR	<2.3	NR	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	0.50 U	0.20 U	0.14	NR	0.14 J	NR	NR	<0.20	NR	NR	<0.10	0.24U	<0.10	NR	NR	NR	NR	NR	NR
Chromium	50	31.40	35.20	567	NR	255 J	NR	NR	34.9	NR	NR	55.7	153	145	NR	NR	NR	NR	NR	NR
Copper	200	16.50 B	9.80 B	16.6	NR	13.4	NR	NR	5.9	NR	NR	7.2	4.9	7	NR	NR	NR	NR	NR	NR
Iron	300	659	621	3020	NR	1110	NR	NR	302	NR	NR	456	1170	637	NR	NR	NR	NR	NR	NR
Lead	15	16.4	5.30 J	7.6 UJ	NR	<2.1	NR	NR	<2.6	NR	NR	4.0	2.2U	<2.6	NR	NR	NR	NR	NR	NR
Manganese	300	31.20	60.10	211	NR	177	NR	NR	138	NR	NR	149	160	164	NR	NR	NR	NR	NR	NR
Mercury	0.7	0.10 UJ	0.20 U	<0.10	NR	<0.10	NR	NR	<0.10	NR	NR	<0.10	<0.10	<0.10	NR	NR	NR	NR	NR	NR
Nickel	100	10.60 B	10.80 U	52	NR	88.2	NR	NR	16.0	NR	NR	10.8	38.3	17	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: -3.00 feet

Groundwater Elevation (feet):

59.44	58.54	57.44	59.80	59.80	58.24	56.54	56.54	54.74	53.04	56.34	58.47	58.47	60.19	62.14	62.49	61.05
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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

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 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 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	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	0.70 J	<5	<5	<5	<5	5 J	<5	<5	<5	<5	<5	<5	<0.28	<0.84	<5.0
1,1 Dichloroethene	5	1.00 U	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5	<0.40	<0.96	<5.0
1,1,1 Trichloroethane	5	0.40 J	<5	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<0.43	<0.40	<5.0
1,2 Dichloroethene (total)	5	1.00 U	<5	<5	<5	<5	2 J	<5	<5	<5	<5	<5	<5	<0.44	<0.84	<5.0
Acetone	NP	3.00 J	11 B	<10	3 JB	<10	<10	<10	<10	<10	5J	<7UJ	<10UJ	<16U	<8.7	<61 U
Chloroform	7	1.00 U	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24	<0.53	<5.0
Methylene Chloride	5	2.00 U	5 B	<5	2 JB	<5	4 J	4 JB	8 B	<5	<5	<3U	<5	<0.91	<1.7	<5.0
Tetrachloroethene	5	1.00 U	<5	<5	<5	<5	8	<5	<5	<5	<5	<5	<5	<0.35	<0.78	<5.0
Toluene	5	1.00 U	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.31	<0.41	<5.0
Trichloroethene	5	1.00 U	<5	<5	<5	<5	12	<5	<5	<5	<5	<5	<5	<0.31	<0.37	<5.0
Turbidity	5	NR	229	NR	27	0	0.1	NR	33.1	0	83	NR	NR	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	NR	NR
Arsenic	25	R	12.1	NR	18.5	NR	8.2	NR	6.0	11.1	<3.5	NR	NR	NR	NR	NR
Beryllium	3	0.20 U	<0.10	NR	0.37 J	NR	<0.20	NR	<0.10	0.22U	<0.66U	NR	NR	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	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	NR	NR
Iron	300	52600.00	19400	NR	31200	NR	22000	NR	20000	24300	8990	NR	NR	15000	NR	NR
Lead	15	2.90 BJ	<2.3 UJ	NR	<2.1	NR	<2.6	NR	2.5	<1.7	<2.6	NR	NR	NR	NR	NR
Manganese	300	714.00	393	NR	559	NR	429	NR	366	403	289	NR	NR	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	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	NR	NR

Top of Screen Elevation: 62.04 feet

Groundwater Elevation (feet)

59.52	58.62	57.42	59.82	60.72	59.81	51.92	53.02	56.32	58.49	60.22	62.17	62.51	61.19
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Bottom of Screen Elevation: 52.04 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 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 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

NR: Rejected during data validation

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	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<0.34	<0.84	<5.0
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<0.53	<0.96	<5.0
1,1,1 Trichloroethane	5	<5	1 J	1 J	<5	<5	1 J	1 J	1 J	1J	<5	<5	<5	<0.33	<0.40	<5.0
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25	<0.40	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<0.40	<0.84	<5.0
Acetone	NP	<10	<10	2 JB	4 J	<10	<10	<10	<10	<10	<10UJ	<10UJ	<10UJ	<2.7U	<8.7	<67 U
Chloroform	7	<5	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42	<0.53	<5.0
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.51	<0.64	<5.0
Methylene Chloride	5	5 JB	<5	4 JB	<5	5 J	4 JB	7	<5J	<5	<3U	<3U	<5	<1.2U	<1.7	<5.0
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<0.24	<0.78	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	1.0	<0.41	<5.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<0.28	<0.37	<5.0
Turbidity	5	23.3	NR	2	21	0.0	NR	114	4.2	4	NR	NR	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	2.1 J	NR	<1.9	2.5U	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	<3.2	NR	<2.4	NR	<2.3	NR	<3.0	3.6U	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	<0.10	NR	0.15 J	NR	<0.20	NR	<0.10	<0.10	<0.49U	NR	NR	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	NR	NR
Copper	200	10.3	NR	3.9	NR	3.2	NR	17.9	14.9	8.5	NR	NR	NR	NR	NR	NR
Iron	300	600	NR	176	NR	105	NR	962	1080	793	NR	NR	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	NR	NR
Manganese	300	144	NR	418	NR	269	NR	197	206	276	NR	NR	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	NR	NR
Nickel	100	58.1	NR	12.6	NR	8.2	NR	32.8	23.0	30.9	NR	NR	NR	NR	NR	NR

Top of Screen Elevation. -1.65 feet

Groundwater Elevation (feet).

59.07	57.97	56.92	59.32	57.77	56.07	54.15	52.57	56.07	57.70	57.70	59.82	-0.73	62.02	60.63
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Bottom of Screen Elevation -11.65 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 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 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

UU: Compound is not detected and the associated quantitation 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	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.28	<0.84	<5.0
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.40	<0.96	<5.0
1,1,1 Trichloroethane	5	4 J	10	5	7	4 J	3 J	3 J	5 J	4 J	4J	2J	2J	<0.43	<0.40	<5.0
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25	<0.40	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.44	<0.84	<5.0
Acetone	NP	11 B	3 JB	<10	<10	<10	<10	<10	<10	<10	<10	<10UJ	<10UJ	<2.5U	<8.7	< 69 U
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24	<0.53	<5.0
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.64	<0.64	<5.0
Methylene Chloride	5	5 B	<5	<5	<5	4 J	5 JB	3 J	<5J	<5J	<5	<3U	<5	<0.91	<1.7	<5.0
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.35	<0.78	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.31	<0.41	<5.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5J	<5J	<5	<5	<5	<0.31	<0.37	<5.0
Turbidity	5	57.4	NR	47	4	0.0	NR	13.3	10.1	10.1	30	NR	NR	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	NR	NR
Arsenic	25	3.4	NR	<3.4	NR	<2.3	NR	<3.0	<2.5	<2.5	<3.5	NR	NR	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	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	NR	NR
Copper	200	68.6	NR	34.2	NR	10.6	NR	28.0	26.4	27.0	29.1J	NR	NR	NR	NR	NR
Iron	300	4460	NR	3160	NR	885	NR	1290	2140	2400	1810	NR	NR	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	NR	NR
Manganese	300	56.8	NR	100	NR	36.7	NR	33.7	31.4	79.9	24	NR	NR	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	NR	NR
Nickel	100	12.4	NR	19.4	NR	4.4	NR	10.6	24.4	23.0	11.6	NR	NR	NR	NR	NR

Top of Screen Elevation 60.53 feet

Groundwater Elevation (feet).

59.15	57.45	57.22	59.34	58.25	56.10	54.35	52.85	52.85	55.65	58.10	59.80	61.70	62.00	60.60
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Bottom of Screen 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 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 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-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-03	April 2003 Duplicate	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	7	8	5	4 J	2 J	4 J	3 J	4 J	4 J	3J	3J	3J	4J	2J	3.0J	2.5J	3.0J
1,1 Dichloroethene	5	14	15	8	6	6	8	6	8	9J	5J	5	8	9	3J	4.8J	4.3J	1.6J
1,1,1 Trichloroethane	5	26	28	20	13	23	11	12	12	13J	8	8	8	10	2J	<0.33UJ	<0.48	<5.0
1,2 Dichloroethene (total)	5	2 J	2 J	1 J	1 J	<5	2 J	1 J	<5	1 J	<5	<5	1J	2J	<5	<0.40UJ	<0.83	<5.0
Acetone	NP	7 JB	8 JB	<10	3 JB	6 J	<10	<10	<10	<10	<10	<10	<10UJ	<10UJ	<10UJ	<2.7UJ	R	< 68 U
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42UJ	<0.35	<5.0
Chloromethane	NP	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.51UJ	<0.46	<5.0
Methylene Chloride	5	3 JB	4 JB	<5	7 JB	<5	<5	4 JB	6	<5J	<5J	<5J	<4U	<3U	<5	<1.6UJ	<3.0U	<5.0
Tetrachloroethene	5	8	8	6	4 J	<5	5 J	3 J	3 J	2 J	2J	2J	2J	2J	<5	<0.24UJ	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<0.18UJ	<0.58	<5.0
Trichloroethene	5	24	25	17	11	3 J	11	9	10	8J	5J	5	6	7	3J	2.8J	2.4J	1.2J
Turbidity	5	11.8	11.8	NR	0	18	0.0	NR	3.6	0.8	6	6	NR	NR	NR	NR	NR	NR
Antimony	3	<2.2	<2.2	NR	<2.3	NR	<1.9	NR	<1.9	2.4U	<2.5	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	<3.2	<3.2	NR	<2.4	NR	<2.3	NR	<3.0	<2.5	<3.5	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	0.1	<0.10	NR	0.24	NR	<0.20	NR	<0.10	0.25U	<0.10	<0.10	NR	NR	NR	NR	NR	NR
Chromium	50	4.1	4.7	NR	6.6	NR	1.4	NR	7.9	19.9	24.5	18.4	NR	NR	NR	NR	NR	NR
Copper	200	3.9	5.3	NR	5.5	NR	3.1	NR	6.8	6.4	5.9	4.6	NR	NR	NR	NR	NR	NR
Iron	300	1190	1510	NR	827	NR	1080	NR	333	429	393	268	NR	NR	NR	NR	NR	NR
Lead	15	6.2	3.4	NR	2.4	NR	<2.6	NR	<2.2	2.7U	<2.6	<2.6	NR	NR	NR	NR	NR	NR
Manganese	300	118	120	NR	96.5	NR	137	NR	120	116	29.9	27.5	NR	NR	NR	NR	NR	NR
Mercury	0.7	<0.10	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	<0.10	NR	NR	NR	NR	NR	NR
Nickel	100	12	11	NR	7.3	NR	5.6	NR	10.9	11.8	16.2	14.8	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: -3.00 feet

Groundwater Elevation (feet)

58.99	58.99	58.29	57.24	59.45	57.19	56.19	54.39	52.99	56.09	56.09	58.08	58.08	59.79	61.69	62.04	60.70
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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

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 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-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	Aug 07	Jul 08
1,1 Dichloroethane	5	14 JD	14 JD	7 JD	7 JD	2 J	2 JD	4 JD	NS	2J	<5	<5	<5	<5	<5	<0.34	<0.39	<20
1,1 Dichloroethene	5	40 JD	22 JD	<5	<5	<5	3 JD	5 JD	NS	<5	4J	4J	5	1J	<5	<0.53	<0.61	<20
1,1,1 Trichloroethane	5	1000 D	860 D	630D	260 D	80	280 D	320 D	NS	190	200	210	260	92	85	310	340	200
1,2 Dichloroethene (total)	5	<5	<50	<5	<5	<5	<10	<10	NS	<5	<5	<5	<5	<5	<5	<0.40	<0.83	<20
Acetone	NP	37 JBD	<10	28 JBD	<20	<10	<10	<10	NS	<10	<4U	<4U	<10	<10	<10	<2.7U	R	< 74 U
Chloroform	7	<50	<5	<5	<5	<5	<5	<5	NS	1J	<5	<5	<5	<5	<5	<0.42	<0.35	<20
Chloromethane	NP	<10	<10	<10	<20	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<0.51	<0.46	<20
Methylene Chloride	5	51 BD	<5	41 BD	<10	<5	28 BD	4 JBD	NS	<5J	<1U	<2U	<2U	<5	<5	<1.4U	<1.5	<5.0
Tetrachloroethene	5	13 JD	19 JD	14 JD	12 D	11	15 D	14 D	NS	26	11	11	12	<5	<5	4.4J	6.6	<20
Toluene	5	<50	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<5	<5	<0.18	<0.58	<20
Trichloroethene	5	<5	<50	<5	<10	<5	<10	<10	NS	<5	<5	<5	<5	<5	<5	<0.28	<0.58	<20
Turbidity	5	311	NR	0	12	0.0	NR	15.1	NS	50	NR	NR	NR	NR	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	NR	NR
Arsenic	25	<3.2	NR	3.0	NR	<2.3	NR	<3.0	NS	<3.5	NR	NR	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	NR	NR
Chromium	50	674	NR	114	NR	1110	NR	90.8	NS	380	NR	NR	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	NR	NR
Iron	300	3720	NR	632	NR	3740	NR	430	NS	1790	NR	NR	NR	NR	NR	<100	<100	NR
Lead	15	4.1 J	NR	<2.1	NR	<2.6	NR	<2.2	NS	<2.7U	NR	NR	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	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	NR	NR
Nickel	100	28.3	NR	9.4	NR	83.7	NR	15.4	NS	28.9	NR	NR	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

59.01	58.31	57.31	59.37	57.31	56.19	54.41	53.41	56.01	58.08	58.08	58.36	59.80	59.80	61.71	62.01	60.76
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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 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 Qualifiers:

J: The analyte was detected in the blank sample

J: Associated value is an estimated quantity

U: Compound was not detected above the associated level

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

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	Aug-07	Jul-08
1,1 Dichloroethane	5	3J	3 J	3 J	2 J	2 J	1 J	<5	<5	<5	<5	<5	<5	<5	<0.34	<0.39	<5.0
1,1 Dichloroethene	5	2 J	1 JB	3 J	1 J	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<0.53	<0.61	<5.0
1,1,1 Trichloroethane	5	3 J	3 J	3 J	1 J	2 J	1 J	<5	<5	<5	<5	<5	<5	<5	<0.33	<0.48	<5.0
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25	<0.70	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.40	<0.83	<5.0
Acetone	NP	<10	1 JB	<10	<10	<10	<10	<10	<5	<10	<10	<10UJ	<7UJ	<10UJ	<2.7U	R	< 64 U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.23	<0.51	NR
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.21	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42	<0.35	<5.0
Methylene Chloride	5	<5	<5	16 B	<5	<5	<5	8 B	<5	<5	<5	<3U	<3U	<5	<1.4U	<1.5	<5.0
Tetrachloroethene	5	1 J	<5	2 J	<5	1 J	1 J	<5	<5	<5	<5	<5	<5	<5	<0.24	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18	<0.58	<5.0
Trichloroethene	5	2 J	2 J	3 J	<5	1 J	1 J	<5	<5	<5	<5	<5	<5	<5	<0.28	<0.58	<5.0
Turbidity	5	0	0	NR	11	0	0.1	NR	2	0	0	NR	NR	NR	NR	NR	NR
Antimony	3	<2.2	<2.2	NR	<2.3	NR	2.3 UJ	NR	<1.9	<2.2	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	<3.2	<3.2	NR	<3.4	NR	3.9 UJ	NR	<3.0	<2.5	<3.5	NR	NR	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	NR	NR
Chromium	50	31.8	35.8	NR	16.2 J	NR	2.6 J	NR	16.1	34.2	23.9	NR	NR	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	NR	NR
Iron	300	2130 J	2750 J	NR	713	NR	236	NR	245 J	344	1660	NR	NR	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	NR	NR
Manganese	300	529	529	NR	465	NR	628	NR	575	690	1200	NR	NR	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	NR	NR
Nickel	100	33	40.8	NR	13.2	NR	4.6	NR	11.5	5.4U	10.2	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: -3.00 feet

Groundwater Elevation (feet):

58.65	58.65	57.85	57.01	59.10	57.15	55.70	54.00	52.35	55.85	57.86	57.86	59.60	61.45	61.75	60.43
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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
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 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-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	Aug-07	Jul-08
1,1 Dichloroethane	5	4 J	3 J	<5	2 J	2 J	2 J	2 J	4 J	3J	3J	4J	2J	3.0J	2.3J	<5.0
1,1 Dichloroethene	5	5 J	4 J	3 J	3 J	3 J	3 J	4 J	7	5	6	6	5	7.8	5.3	1.3J
1,1,1 Trichloroethane	5	10	8	5	5 J	4 J	5	5	9	6	6	7	6	5.8	<0.48	1.2J
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	1 J	<5	1J	1J	<5	1.1J	1.0J	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.38	<0.28UJ	NR
Acetone	NP	<10	<10	6 JB	<5	<10	<10	<10	<10	<10	<10UJ	<10	<10	<2.7U	R	< 67 U
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.21	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	5 J	2J	1J	1J	<5	<0.42	<0.35	<5.0
Methylene Chloride	5	<5	<5	13 B	<5	3 J	15 B	<5	<5	<5	<4U	<6U	<5	<1.4U	<1.5	<5.0
Tetrachloroethene	5	3 J	3 J	3 J	<5	4 J	2 J	2 J	4 J	3J	2J	2J	1J	1.6J	1.3J	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18	<0.58	<5.0
Trichloroethene	5	8	6	5	4 J	4 J	4 J	4 J	7	6	7	7	6	6.0	4.9J	1.5J
Turbidity	5	0	NR	0	6	0.1	NR	27.0	73	0	NR	NR	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	NR	2.0	<2.2	<2.5	NR	NR	NR	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	NR	NR
Beryllium	3	<0.10	NR	0.24	NR	<0.20	NR	<0.10	0.16U	<0.21U	NR	NR	NR	NR	NR	NR
Chromium	50	458	NR	157	NR	23.1	NR	378	479	300	NR	NR	NR	NR	NR	NR
Copper	200	19.3	NR	9.7	NR	8.8	NR	28.8	15.1	<11.4U	NR	NR	NR	NR	NR	NR
Iron	300	3670 J	NR	534	NR	180 J	NR	1480 J	870	1500	NR	NR	NR	NR	NR	NR
Lead	15	2.6	NR	2.5	NR	<2.6	NR	5.7	5.2	<2.6U	NR	NR	NR	NR	NR	NR
Manganese	300	243	NR	146	NR	79.4	NR	110	130	102	NR	NR	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	NR	NR
Nickel	100	449	NR	121	NR	67.3	NR	110	133	235	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: -3.04 feet

Groundwater Elevation (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	61.64	60.22
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Bottom of Screen Elevation: -13.04 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 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 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-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	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<25	2 J	1 J	1 J	<5	<5	<5	NS	<5	<5	<5	<0.34	<0.39	<5.0
1,1 Dichloroethene	5	<5	14 JD	<5	<5	<5	<5	1 J	1 J	NS	<5	1J	<5	<0.53	<0.61	<5.0
1,1,1 Trichloroethane	5	15	360 D	110	85	110	110	92	54	NS	19	24	16	<0.33	<0.48	<5.0
1,2 Dichloroethene (total)	5	<5	<25	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<0.40	<0.83	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<0.38	<0.28UJ	NR
Acetone	NP	<10	<10	3 JB	3 J	<10	<10	<10	<10	NS	<10	<2UJ	<10	<2.7U	R	< 62 U
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<0.21	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<0.42	<0.35	<5.0
Methylene Chloride	5	<5	<5	3 JB	<5	3 J	<5	14 B	9 B	NS	<5	<4U	<5	<0.47	<1.5	<5.0
Tetrachloroethene	5	<5	<25	1 J	<5	<5	<5	<5	<5	NS	<5	<5	<5	<0.24	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<0.18	<0.58	<5.0
Trichloroethene	5	<5	<25	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<0.28	<0.58	<5.0
Turbidity	5	0	NR	0	0	0.0	NR	NR	25.5	NS	0	NR	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	<1.9	NR	3.4	NS	<2.5	NR	NR	NR	NR	NR
Arsenic	25	<3.2	NR	<2.4	NR	<2.3	<2.3	NR	<3.0	NS	<3.5	NR	NR	NR	NR	NR
Beryllium	3	<0.10	NR	0.27	NR	<0.20	<0.20	NR	<0.10	NS	<0.16U	NR	NR	NR	NR	NR
Chromium	50	159	NR	77.7	NR	3.9	4.2	NR	836	NS	38.8	NR	NR	NR	NR	NR
Copper	200	9.7	NR	6.5	NR	3.0	3.5	NR	9.8	NS	<3.4U	NR	NR	NR	NR	NR
Iron	300	899 J	NR	463	NR	37.3 J	27.5 J	NR	4760	NS	291	NR	NR	NR	NR	NR
Lead	15	<2.3	NR	<2.1	NR	<2.6	<2.6	NR	<2.2	NS	<2.6	NR	NR	NR	NR	NR
Manganese	300	16.7	NR	53.4	NR	28.7	28.7	NR	14.9	NS	<5.4U	NR	NR	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	NR	NR
Nickel	100	7.9	NR	17.4	NR	7.6	7.2	NR	20.6	NS	<1.8	NR	NR	NR	NR	NR

5x Dilution

Top of Screen Elevation: 62.37 feet

Groundwater Elevation (feet):

58.29	58.29	56.79	58.95	57.59	57.59	55.69	53.89	52.49	55.49	57.72	59.34	61.19	61.49	60.19
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Bottom of Screen Elevation: 52.37 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 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 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-7D

Analyte	NY Water Quality Criteria	June 2000	Oct 2000	Jan - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Jan - Feb 2002	Jan - Feb 2002 Duplicate	July - Aug 2002	Apr-03	April 2003 Duplicate	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	8	8	8	2 J	8	8	7	7	5J	4J	4J	1J	2J	<5	<0.28	<0.39	<5.0
1,1 Dichloroethene	5	4 J	5	3 J	11	3	3 J	3 J	3 J	4 J	1J	1J	<5	1J	<5	<0.40	<0.61	<5.0
1,1,1 Trichloroethane	5	7	5 J	3 J	15	2 J	2 J	2 J	2 J	3 J	<5J	<5J	<5	<5	<5	<0.43	<0.48	<5.0
1,2 Dichloroethene (total)	5	2 J	3 J	2 J	1 J	3 J	2 J	2 J	2 J	2 J	<5	1J	<5	<5	<5	<0.44	<0.83	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.92	<0.28UJ	NR
Acetone	NP	<10	<10	2 JB	<5	<10	<10	<10	<10	<10	<10	<10	<10UJ	<10UJ	<10UJ	<2.5	R	< 62 U
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29	<0.38	NR
Chloroform	7	<5	<5	<5	2 J	<5	<5	<5	<5	< 5	<5	<5	<5	<5	<5	<0.24	<0.35	<5.0
Chloromethane	NP	<10	3 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.64	<0.46	<5.0
Methylene Chloride	5	<5	<5	4 JB	<5	1 J	11 B	8 B	8 B	<5J	<5	<5	<3U	<3U	<5	<0.91	<1.5	<5.0
Tetrachloroethene	5	4 J	5 J	3 J	<5	3 J	3 J	3 J	3 J	2 J	1J	1J	<5	<5	<5	<0.35	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<0.31	<0.58	<5.0
Trichloroethene	5	5	6	4 JB	5 J	3 J	3 J	3 J	3 J	3 J	2J	2J	<5	1J	<5	<0.31	<0.58	<5.0
Turbidity	5	0	NR	10	10	0.0	NR	19.3	19.3	0.0	6	6	NR	NR	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	<1.9	NR	<1.9	2.1	<2.2	<2.5	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	<3.2	NR	<2.4	NR	<2.3	NR	<3.0	<3.0	<2.5	<3.5	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	<0.10	NR	0.25 J	NR	<0.20	NR	<0.10	<0.10	0.23U	<0.60U	<0.62U	NR	NR	NR	NR	NR	NR
Chromium	50	19.9	NR	2.7 J	NR	7.1	NR	3.3	3.6	18.6	<6.7U	<8.3U	NR	NR	NR	NR	NR	NR
Copper	200	13.7	NR	3.1	NR	4.6	NR	5.8	7.3	13.2	3.2	4	NR	NR	NR	NR	NR	NR
Iron	300	544 J	NR	94.2	NR	209 J	NR	86.0	98.8	306	289	409	NR	NR	NR	NR	NR	NR
Lead	15	2.8	NR	<2.1	NR	<2.6	NR	<2.2	<2.2	<1.7	<2.9U	<2.6	NR	NR	NR	NR	NR	NR
Manganese	300	47.4	NR	61.4	NR	69.3	NR	62.1	60.9	60.9	62.2	64.7	NR	NR	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	<0.10	<0.10	NR	NR	NR	NR	NR	NR
Nickel	100	13.8	NR	3.1	NR	3.7	NR	6.5	6.7	17.3	4.8	6.2	NR	NR	NR	NR	NR	NR

Top of Screen Elevation 0.38 feet

Groundwater Elevation (feet).

57.86	57.46	56.46	58.74	56.96	56.01	54.46	54.46	52.26	55.06	55.06	57.21	57.21	59.15	-0.94	61.22	59.86
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Bottom of Screen Elevation: -9.62 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 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 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	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.34UJ	<0.39	<5.0
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.53UJ	<0.61	<5.0
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.33UJ	<0.48	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.40UJ	<0.83	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	<10	<10	<10	<0.38UJ	<0.28UJ	NR
Acetone	NP	<10	<10	2 J	<10	2 JB	<5	<10	<10	NS	NS	<10	<10UJ	<10UJ	<2.7UJ	R	< 74 U
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.21UJ	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.42UJ	<0.35	<5.0
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	<10	<10	<10	<0.51UJ	<0.46	<5.0
Methylene Chloride	5	<5	<5	<5	2 JB	1 JB	<5	<5	11 B	NS	NS	<5	<3U	<5	<1.0UJ	<1.5	<5.0
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.24UJ	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	<5	<0.18UJ	<0.58	<5.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5	<5	1J	<0.28UJ	<0.58	<5.0
Turbidity	5	0	NR	NR	190	190	0	0.0	NR	NS	NS	5	NR	NR	NR	NR	NR
Antimony	3	<2.2	NR	NR	<2.3	<2.3	NR	<1.9	NR	NS	NS	<2.5	NR	NR	NR	NR	NR
Arsenic	25	<3.2	NR	NR	<3.4	<3.4	NR	<2.3	NR	NS	NS	<3.5	NR	NR	NR	NR	NR
Beryllium	3	<0.10	NR	NR	<0.10	<0.10	NR	<0.20	NR	NS	NS	<0.62U	NR	NR	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	NR	NR
Copper	200	15	NR	NR	10.1	12.2	NR	3.0	NR	NS	NS	2.9	NR	NR	NR	NR	NR
Iron	300	912 J	NR	NR	498	427	NR	<15.7	NR	NS	NS	787	NR	NR	NR	NR	NR
Lead	15	<2.3	NR	NR	<2.1	<2.1	NR	<2.6	NR	NS	NS	<2.6	NR	NR	NR	NR	NR
Manganese	300	245	NR	NR	155	162	NR	1.4	NR	NS	NS	88.2	NR	NR	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	NR	NR
Nickel	100	22.5	NR	NR	9.7	7.3	NR	1.5	NR	NS	NS	9.1	NR	NR	NR	NR	NR

Top of Screen Elevation: 63.06 feet

Groundwater Elevation (feet):

58.21	57.41	57.41	56.51	56.51	58.81	57.01	55.41	53.57	53.21	55.31	57.44	59.12	61.01	61.21	59.95
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Bottom of Screen Elevation: 53.06 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 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 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-04 (bottom bag)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	14	40 D	9	8	7	2 J	<5	3 J	3 J	4J	<5	<5	<5	<0.34UJ	<0.39	<5.0
1,1 Dichloroethene	5	8	7 JD	2 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.53UJ	<0.61	<5.0
1,1,1 Trichloroethane	5	120	350 D	110	34	34	15	34	12	11	30	14	6	<5	<0.33UJ	<0.48	4.6J
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25UJ	<0.70	<5.0
1,2 Dichloroethene (total)	5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.40UJ	<0.83	<5.0
Acetone	NP	8 JB	<10	2 JB	4 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.7UJ	R	< 67 U
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42UJ	2.1J	<5.0
Chloromethane	NP	<10	<10	<10	1 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.51UJ	<0.46	<5.0
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.21UJ	9.4	NR
Methylene Chloride	5	4 JB	<5	1 JB	<5	<5	14 B	1 JB	<5	<5	<5J	<5U	<6U	<5	<1.0UJ	<1.5	<5.0
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24UJ	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18UJ	<0.58	<5.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.28UJ	<0.58	<5.0
Turbidity	5	200	NR	0	0	0.1	NR	22.5	110	110.0	45	NR	NR	NR	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	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	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	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	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	NR	NR	NR
Iron	300	17200	NR	687	NR	634	NR	2050 J	<14.5	707	919	NR	NR	NR	290	290	NR
Lead	15	5.2	NR	<2.1	NR	<2.4	NR	<2.2	<1.7	<1.7	<2.6	NR	NR	NR	NR	NR	NR
Manganese	300	365	NR	54.9	NR	17.3	NR	26.6	32.1	31.8	28	NR	NR	NR	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	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	NR	NR	NR

5x Dilution

Top of Screen Elevation: 53.65 feet

Groundwater Elevation (feet):

58.35	57.45	57.65	58.71	56.45	55.44	53.55	51.85	51.85	55.35	57.46	57.46	59.10	61.00	61.35	59.93
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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 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 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-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	Aug-07	Jul-08
1,1 Dichloroethane	5	4J	2 J	1 J	2 J	2 J	<5	2 J	<5	4J	<5	<5	<5	<0.34UJ	<0.39	<5.0
1,1 Dichloroethene	5	1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.53UJ	<0.61	<5.0
1,1,1 Trichloroethane	5	21	8	15	5 J	12	6	15	1 J	2J	3J	<5	<5	<0.33UJ	<0.48	<5.0
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.25UJ	<0.70	<5.0
1,2 Dichloroethene (total)	5	1J	<5	<5	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<0.40UJ	<0.83	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.38UJ	<0.28UJ	NR
Acetone	NP	<10	<10	1 JB	<5	<10	<10	<10	<10	<10	<10	<3U	<10	<2.7UJ	R	< 63 U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.23UJ	<0.51	NR
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	1.3J	1.3J	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.42UJ	<0.35	<5.0
Chloromethane	NP	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<0.51UJ	<0.43	<5.0
Methylene Chloride	5	<5	<5	<5	5 J	<5	9 B	4JB	<5	<5	<2U	<2U	<5	<0.47UJ	<1.5	<5.0
Tetrachloroethene	5	2J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24UJ	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18UJ	<0.58	<5.0
Trichloroethene	5	1J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.28UJ	<0.58	<5.0
Turbidity	5	75	NR	0	0	0.0	NR	25.7	0	95	NR	NR	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	NR	NR
Arsenic	25	<3.2	NR	<3.4	NR	<2.3	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	<0.10	NR	<0.10	NR	<0.20	NR	<0.10	0.22U	<0.69U	NR	NR	NR	NR	NR	NR
Chromium	50	3.1	NR	2.6 J	NR	<0.90	NR	3.3	3.6U	<6.4U	NR	NR	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	NR	NR
Iron	300	14100	NR	7870	NR	6830 J	NR	12200	14600	18100	NR	NR	NR	NR	NR	NR
Lead	15	2.8	NR	<2.1	NR	<2.6	NR	<2.2	<1.7	<2.6	NR	NR	NR	NR	NR	NR
Manganese	300	1090	NR	217	NR	421	NR	374	221	284	NR	NR	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	NR	NR
Nickel	100	6.5	NR	2.9	NR	3.6	NR	5.5	3.8U	6.5	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: 52.58 feet

Groundwater Elevation (feet)

56.68	56.28	55.48	57.06	55.78	54.28	52.58	50.78	53.26	56.45	56.45	58.03	59.93	60.18	58.80
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Bottom of Screen Elevation: 42.58 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 ft above the bottom of the well.

NS: Not sampled

NY Water Quality Criteria: NYSDEC Regulation for Surface Waters and Groundwater, Section 708.5 (August 1998)

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

UJ: 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	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	Jan - Feb 2002 Duplicate	July - Aug 2002	Apr-03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.39	<5.0
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29	<0.61	<5.0
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.53	<0.48	<5.0
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.44	<0.70	<5.0
1,2 Dichloroethene (total)	5	42	1 J	1 J	18	20	24	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.47	<0.83	<5.0
Acetone	NP	<10	<10	<10	<10	3 JB	<5	<10	<10	<10	<10	<10	<10	<10	<3U	<10	<2.8U	R	< 68 U
Chlorobenzene	5	1 J	<5	<5	1J	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93	<0.35	<5.0
Chloromethane	NP	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.74	<0.46	<5.0
Methylene Chloride	5	<5	<5	<5	<5	1 JB	5 J	<5	5 B	2 JB	2 JB	<5	<5J	<2U	<2U	<5	<2.3U	<1.5	<5.0
Tetrachloroethene	5	11	<5	<5	9	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.50	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32	<0.58	<5.0
Trichloroethene	5	14	<5	<5	4 J	5 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.58	<5.0
Turbidity	5	0	NR	NR	190	190	0	0.1	NR	19.4	NR	0	36	NR	NR	NR	NR	NR	NR
Antimony	3	<3.2	NR	NR	<2.3	<2.3	NR	2.3 UJ	NR	<1.9	<1.9	<2.2	<2.5	NR	NR	NR	NR	NR	NR
Arsenic	25	10.6	NR	NR	6.4	6.8	NR	6.9 J	NR	4.9	7.2 J	2.5	<3.8U	NR	NR	NR	NR	NR	NR
Beryllium	3	0.21	NR	NR	<0.10	<0.10	NR	<0.20	NR	<0.10	0.12	0.13U	<0.10	NR	NR	NR	NR	NR	NR
Chromium	50	19.5	NR	NR	4.4 J	3.8 J	NR	1.4 UJ	NR	2.4	4.2	2.7U	8.9	NR	NR	NR	NR	NR	NR
Copper	200	9.7	NR	NR	8.9	7.3	NR	<0.50	NR	3.8	8.5	1.3	7.8	NR	NR	NR	NR	NR	NR
Iron	300	39100 J	NR	NR	36400	34900	NR	27800	NR	19800 J	19700 J	29300	22700	NR	NR	NR	NR	NR	NR
Lead	15	4.6	NR	NR	4.6	3.4	NR	<2.4	NR	2.9	4.4	<1.7	<3.2U	NR	NR	NR	NR	NR	NR
Manganese	300	405	NR	NR	417	403	NR	344	NR	199	194	339	309	NR	NR	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	NR	<0.10	<0.10	NR	<0.10	NR	<0.10	<0.10	<0.10	<0.10	NR	NR	NR	NR	NR	NR
Nickel	100	13	NR	NR	4.8	3.8	NR	2.7	NR	3.1	3.3	1.6U	9.3	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: 54.60 feet

Groundwater Elevation (feet):

Bottom of Screen Elevation: 44.60 feet

58.95	58.25	58.25	57.15	57.15	59.31	57.35	56.15	54.25	54.25	52.60	56.05	58.15	58.15	59.75	61.70	62.01	60.62
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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 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 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-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-04 (bottom bag)	Jun-05	Jul-06	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.39	<5.0
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29	<0.61	<5.0
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	3 J	<5	<5J	<5	<5	<5	<0.53	<0.48	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.47	<0.83	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.84	<0.28UJ	NR
Acetone	NP	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<2U	<10	<10UJ	<2.8U	R	< 70 UJ
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93	<0.35	<5.0
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.74	<0.46	<5.0
Methylene Chloride	5	<5	<5	<5	<5	<5	<5	1 JB	<5	<5	<5	<2U	<2UJ	<5	<2.1UJ	<2.1UJ	<5.0
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.50	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32	<0.58	<5.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.58	<5.0
Turbidity	5	133	NR	47	0	0	0.0	NR	26.4	97	170	NR	NR	NR	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	NR	NR
Arsenic	25	17.2	NR	10.4	NR	NR	5.7	NR	10.3 J	39.8	6.6	NR	NR	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	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	NR	NR
Copper	200	11.8	NR	7.2	NR	NR	0.89	NR	7.2	54.7	<0.60	NR	NR	NR	NR	NR	NR
Iron	300	33700 J	NR	25200	NR	NR	25400 J	NR	24600 J	58400	20900	NR	NR	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	NR	NR
Manganese	300	524	NR	426	NR	NR	430	NR	363	438	293	NR	NR	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	NR	NR
Nickel	100	5.2	NR	2.7	NR	NR	1.9	NR	4.1	23.4U	5.7	NR	NR	NR	NR	NR	NR

Top of Screen Elevation 54.75 feet

Groundwater Elevation (feet):

Bottom of Screen Elevation 44.75 feet

58.40	57.80	56.76	56.90	56.90	56.80	55.58	53.70	52.20	55.10	57.77	57.77	59.39	61.29	61.60	60.18
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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 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 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-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	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-05	Jul-05	Aug-07	Jul-08
1,1 Dichloroethane	5	5	7	3 J	2 J	1 J	1 J	2 J	3 J	<5	<5	<5	<5	<0.38	<0.39	20
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29	<0.61	<5.0
1,1,1 Trichloroethane	5	39	58	33	9	12	19	22	5 J	4 J	<5	<5	<5	<0.53	<0.48	7.4
1,1,2 Trichloroethane	1	<5	3 J	<5	<5	1 J	2 J	<5	<5	<5	<5	<5	<5	<0.44	<0.70	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.47	<0.83	<5.0
Acetone	NP	<10	<10	<5	<5	<10	<10	<5	<10	<10	<7UJ	<10UJ	<10UJ	<2.8U	R	< 70 U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18	<0.51	NR
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93	<0.35	<5.0
Methylene Chloride	5	<5	<5	<5	<5	<5	9 B	1 JB	<5	<5	<3U	<4U	<5	<1.5U	<1.5	<5.0
Tetrachloroethene	5	<5	3 J	1 J	<5	<1	1 J	1 J	<5	<5	<5	<5	<5	<0.50	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32	<0.58	<5.0
Trichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.58	<5.0
Turbidity	5	15.9	NR	35	10	0.1	NR	18	0	200	NR	NR	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	NR	NR
Arsenic	25	6.5	NR	<3.4	NR	3.9 UJ	NR	<3.0	<2.5	<3.5	NR	NR	NR	NR	NR	NR
Beryllium	3	0.26	NR	<0.10	NR	<0.20	NR	<0.10	0.26U	<0.64U	NR	NR	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	NR	NR
Copper	200	79.1	NR	42.6	NR	29.2	NR	18.5	20.1	108	NR	NR	NR	NR	NR	NR
Iron	300	16900 J	NR	1600	NR	409	NR	662 J	982	11100	NR	NR	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	NR	NR
Manganese	300	386	NR	73.8	NR	176	NR	108	53.7	401	NR	NR	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	NR	NR
Nickel	100	61.9	NR	47.4	NR	49.5	NR	22.7	14.2U	59.6	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: 58.08 feet

Groundwater Elevation (feet):

57.98	57.38	57.65	58.81	56.88	58.81	51.78	52.08	55.48	57.38	57.38	59.25	61.13	61.38	59.98
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Bottom of Screen Elevation: 48.08 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 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 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-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	Aug-07	Jul-08
1,1 Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.39	<5.0
1,1 Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29	<0.61	<5.0
1,1,1 Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.53	<0.48	<5.0
1,1,2 Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.44	<0.70	<5.0
1,2 Dichloroethene (total)	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.47	<0.83	<5.0
Acetone	NP	<10	<10	7 JB	6 J	<10	<10	<10	<10	<10	<10	<4U	<4U	<10	<2.8U	R	<67 U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18	<0.51	NR
Chlorobenzene	5	<5	<5	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.93	<0.35	<5.0
Methylene Chloride	5	<5	<5	2 JB	7	<5	<5	10 B	<5	<5	<5	<1U	<2U	<5	<0.97U	<1.5	<5.0
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.50	<0.44	<5.0
Toluene	5	<5	<5	2 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32	<0.58	<5.0
Trichloroethene	5	<5	<5	1 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.38	<0.58	<5.0
Turbidity	5	247	NR	0	0	0.0	NR	NR	16.4	0	0	NR	NR	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	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	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	NR	NR
Chromium	50	31.2	NR	80	NR	3.2 J	3.1 J	NR	5.3	6.7	25.7	NR	NR	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	NR	NR
Iron	300	9060	NR	13500	NR	905	381	NR	1170 J	1100	3850	NR	NR	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	NR	NR
Manganese	300	164	NR	269	NR	15.4	10.6	NR	16.6	23.4	70.4	NR	NR	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	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	NR	NR

Top of Screen Elevation: 58.03 feet

Groundwater Elevation (feet):

47.30	56.30	55.50	57.73	55.60	55.60	54.20	52.52	51.00	54.60	56.67	56.67	58.20	60.05	60.25	58.84
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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

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 orifice 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

Detected 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 quantification limit is uncertain

R: Rejected during data validation

Groundwater Sampling Analytical Results for
MW-19D

Analyte	NY Water Quality Criteria	June 2003	Oct 2003	June - Feb 2001	Apr - May 2001	July - Aug 2001	Oct 2001	Oct 2001 Duplicate	Jan - Feb 2002	July - Aug 2002	Apr-03	Jun-04 (topmost bag)	Jun-04 (bottom bag)	Jun-04 (bottom bag duplicate)	Jun-04 (Low Flow)	Jun-05	Jun-05 (duplicate)	Jul-05	Jul-05 (duplicate)	Aug-07	Aug-07 (duplicate)	Jun-08	Jun-08 (duplicate)
1,1 Dichloroethane	5	3J	4J	4J	4J	4J	4J	4J	3J	4J	2J	<5	2J	2J	3J	3J	2J	3.3J	2.6J	<0.39	<0.39	4.0J	3.9J
1,1 Dichloroethene	5	14	14	12	18	19	19	18	23	24	11	<5	22	22	19	25	24	130	70	<0.61	<0.61	40	42
1,1,1 Trichloroethane	5	23	19	17	27	27	28	28	30	28	16	2J	23	23	22	30	29	82	60	<0.48	<0.48	32	34
1,2 Dichloroethene (total)	5	3J	6	<5	7	8	8	7	8	10	8	<5	8	8	7	7	6	5.6	4.6J	<0.83	<0.83	3.0J	2.7J
2-Butanone	NP	<10	<10	<10	<10	<10	4J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.84	<0.92	<0.28UJ	<0.28UJ	NR	NR
Acetone	NP	<10	<10	4JB	<10	<10	<10	<10	8JB	<10	<10	<4U	<4U	<3U	<3U	<10	<10	<2.8U	<2.5U	R	R	68J	<69U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.18	<0.62	<0.51	<0.51	NR	NR
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.089	<0.29	<0.38	<0.38	NR	NR
Chloroform	7	2J	2J	<5	5J	7	7	7	10	14	19	2J	31	32	25	21	21	7.0	4.8J	<0.35	<0.35	2.4J	2.4J
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.74	<0.64	<0.46	<0.46	<5.0	<5.0
Methylene Chloride	5	<5	13B	12B	6	<5	9B	9B	<5	<5	<5	<5U	<4U	<3U	<4U	<5	<5	<2.2U	<0.91	<1.5	<3.3U	<5.0	<5.0
Tetrachloroethene	5	46	47	50	55	65	62	61	77	62	57	2J	24	24	39	20	18	20	15	<0.44	<0.44	7.2	8.0
Toluene	5	2J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.32	<0.31	<0.58	<0.58	<5.0	<5.0
Trichloroethene	5	40	34	37	36	46	43	43	55	57	33	2J	33	35	32	28	26	31	23	<0.58	<0.58	40	40
Turbidity	5	238	NR	0	230	0.1	NR	NR	659	250	990	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Antimony	3	<2.2	NR	<2.3	NR	2.3 UJ	NR	NR	<1.9	<2.2	<2.5	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	12.5 J	7.8	<10.9U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	3	0.3	NR	1.1	NR	<0.20	NR	NR	0.47	2.60	<1.1U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	50	43.9	NR	47.4	NR	49.5 J	NR	NR	86.4	55.7	163	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Copper	200	14.2	NR	26.1	NR	7.8	NR	NR	38.2	21.0	114	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Iron	300	7240	NR	15000	NR	4730	NR	NR	27300 J	18900	33800	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	15	10.3	NR	18.0	NR	3.8	NR	NR	22.7	16.3	34.1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Manganese	300	557	NR	646	NR	295	NR	NR	568	429	724	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	0.7	<0.10	NR	<0.10	NR	<0.10	NR	NR	<0.10	<0.10	<0.16U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Nickel	100	32	NR	32.9	NR	36.0	NR	NR	59.1	35.7	115	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Top of Screen Elevation:	Unknown																						
Groundwater Elevation (feet):		55.70	55.10	54.26	56.45	54.00	53.10	53.10	51.10	49.60	53.20	55.36	55.36	55.36	55.45	56.95	56.95	58.75	58.75	58.90	58.90	57.46	57.46
Bottom of Screen Elevation:	Unknown																						

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 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 well.
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
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	Aug-07	Jul-08
1,1 Dichloroethane	5	6	4 J	3 J	4 J	5 J	3 J	3 J	3 J	4J	<5	<5	<5	<0.28	<0.39	<5.0
1,1 Dichloroethene	5	1J	2 J	1 J	2 J	3 J	1 J	1 J	<5	<5	<5	<5	<5	<0.40	<0.61	<5.0
1,1,1 Trichloroethane	5	8	5 J	1 J	<5	1 J	2 J	1 J	<5	6	<5	<5	<5	<0.43	<0.48	<5.0
1,2 Dichloroethene (total)	5	<5	1 J	<5	2 J	2 J	1 J	<5	2 J	<5	<5	<5	<5	<0.44	<0.83	<5.0
2-Butanone	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.92	<0.28UJ	NR
Acetone	NP	<10	4 J	4 JB	<10	<10	<10	<10	<10	<10	<4U	<10	<10	<2.5UJ	R	< 74 U
Carbon Disulfide	NP	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.62	<0.51	NR
Chlorobenzene	5	2J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.29	<0.38	NR
Chloroform	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.24	<0.35	<5.0
Chloromethane	NP	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<0.64	<0.46	<5.0
Methylene Chloride	5	<5	14 B	12 B	6	<5	9 B	<5	<5	<5	<2U	<2U	<5	<2.0UJ	<1.5	<5.0
Tetrachloroethene	5	<5	2 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.35	<0.44	<5.0
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.31	<0.58	<5.0
Trichloroethene	5	<5	2 J	<5	<5	2 J	<5	<5	<5	<5	<5	<5	<5	<0.31	<0.58	<5.0
Turbidity	5	64.9	NR	0	0	0.1	NR	62	0	0	NR	NR	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	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	NR	NR
Beryllium	3	0.37	NR	0.60	NR	<0.20	NR	0.16	0.61U	<0.10	NR	NR	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	NR	NR
Copper	200	109	NR	13.7	NR	<0.50	NR	16.4	6.3	<3.4U	NR	NR	NR	NR	NR	NR
Iron	300	21600	NR	29400	NR	15400	NR	26000 J	18600	14700	NR	NR	NR	NR	NR	NR
Lead	15	34	NR	4.6	NR	<2.4	NR	6.3	<1.7	<2.6	NR	NR	NR	NR	NR	NR
Manganese	300	2100	NR	1050	NR	786	NR	966	683	1020	NR	NR	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	NR	NR
Nickel	100	66.9	NR	26.7	NR	3.9	NR	29.1	86.8	4.0	NR	NR	NR	NR	NR	NR

Top of Screen Elevation: Unknown

Groundwater Elevation (feet)

56.20	55.00	54.20	56.40	54.30	53.00	51.10	49.60	53.40	55.30	55.30	56.85	58.60	58.80	57.43
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Bottom of Screen Elevation: Unknown

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 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 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: TestAmerica Laboratories, Inc.
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2008
Volatile Organics Results

Sample ID	CC-18-MW-1S-14	CC-18-MW-1D-14	CC-18-MW-3S-14	CC-18-MW-3D-14	CC-18-MW-4S-14	CC-18-MW-4D-14	NY Water Quality
Lab Sample ID	220-6023-1	220-6023-2	220-6023-3	220-6023-4	220-6023-5	220-6023-6	Criteria
Sampling Date	07/29/2008	07/29/2008	07/29/2008	07/29/2008	07/29/2008	07/29/2008	
Volatiles (µg/L)							
1,1 Dichloroethane	<5.0	<5.0	<5.0	<5.0	<20	3.0 J	5
1,1 Dichloroethene	<5.0	<5.0	<5.0	<5.0	<20	1.6 J	5
1,1,1 Trichloroethane	<5.0	<5.0	<5.0	<5.0	200	<5.0	5
1,1,2 Trichloroethane	<5.0	<5.0	<5.0	<5.0	<20	<5.0	1
1,2 Dichloroethene (total)	<5.0	<5.0	<5.0	<5.0	<20	<5.0	5
Acetone	<61 U	<61 U	<69 U	<67 U	<74 U	<68 U	NP
Chloroform	<5.0	<5.0	<5.0	<5.0	<20	<5.0	7
Chloromethane	<5.0	<5.0	<5.0	<5.0	<20	<5.0	NP
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<20	<5.0	5
Toluene	<5.0	<5.0	<5.0	<5.0	<20	<5.0	5
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<20	1.2 J	5
TOTAL VOCs	0	0	0	0	200	5.8	

NOTES:

Diffusion bags were deployed July 15, 2008 and were retrieved and sampled on July 29, 2008.

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.

R: Indicates the data is unusable.

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

SUMMARY REPORT (Validated)
Lab: TestAmerica Laboratories, Inc.
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2008
Volatile Organics Results

Sample ID	CC-18-MW-5D-14	CC-18-MW-6S-14	CC-18-MW-6D-14	CC-18-MW-7S-14	CC-18-MW-7D-14	CC-18-MW-13-14	NY Water Quality
Lab Sample ID	220-6023-7	220-6023-8	220-6023-9	220-6023-10	220-6023-11	220-6023-12	Criteria
Sampling Date	07/29/2008	07/29/2008	07/29/2008	07/29/2008	07/29/2008	07/29/2008	
Volatiles (µg/L)							
1,1 Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
1,1 Dichloroethene	<5.0	<5.0	1.3 J	<5.0	<5.0	<5.0	5
1,1,1 Trichloroethane	<5.0	<5.0	1.2 J	<5.0	<5.0	4.6 J	5
1,1,2 Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1
1,2 Dichloroethene (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Acetone	<64 U	<62 U	<67 U	<74 U	<62 U	<67 U	NP
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NP
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Trichloroethene	<5.0	<5.0	1.5 J	<5.0	<5.0	<5.0	5
TOTAL VOCs	0	0	4.0	0	0	4.6	

NOTES:

Diffusion bags were deployed July 15, 2008 and were retrieved and sampled on July 29, 2008.

ND: Not Detected

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<...: 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.

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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.

R: Indicates the data is unusable.

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

SUMMARY REPORT (Validated)
Lab: TestAmerica Laboratories, Inc.
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2008
Volatile Organics Results

Sample ID	CC-18-MW-14-14	CC-18-MW-15-14	CC-18-MW-16-14	CC-18-MW-17-14	CC-18-MW-18-14	CC-18-MW-19S-14	NY Water Quality
Lab Sample ID	220-6023-13	220-6023-14	220-6023-15	220-6023-16	220-6023-17	220-6023-18	Criteria
Sampling Date	07/29/2008	07/29/2008	07/29/2008	07/29/2008	07/29/2008	07/29/2008	
Volatiles (µg/L)							
1,1 Dichloroethane	<5.0	<5.0	<5.0	20	<5.0	<5.0	5
1,1 Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
1,1,1 Trichloroethane	<5.0	<5.0	<5.0	7.4	<5.0	<5.0	5
1,1,2 Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1
1,2 Dichloroethene (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Acetone	<63 U	<68 U	<70 U	<70 U	<67 U	<74 U	NP
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NP
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
TOTAL VOCs	0	0	0	27.4	0	0	

NOTES:

Diffusion bags were deployed July 15, 2008 and were retrieved and sampled on July 29, 2008.

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.

R: Indicates the data is unusable.

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

SUMMARY REPORT (Validated)
Lab: TestAmerica Laboratories, Inc.
Circuitron Corporation Superfund Site
Monitoring Wells Sampling: July 2008
Volatile Organics Results

Sample ID	CC-18-MW-19D-14	CC-18-MW-19D-14-3	FIELD BLANK	TRIP BLANK	NY Water Quality
Lab Sample ID	220-6023-19	220-6023-20	220-6023-21FB	220-6023-22TB	Criteria
Sampling Date	07/29/2008	07/29/2008	07/29/2008	07/29/2008	
Volatiles (µg/L)					
1,1 Dichloroethane	4.0 J	3.9 J	<5.0	<5.0	5
1,1 Dichloroethene	40	42	<5.0	<5.0	5
1,1,1 Trichloroethane	32	34	<5.0	<5.0	5
1,1,2 Trichloroethane	<5.0	<5.0	<5.0	<5.0	1
1,2 Dichloroethene (total)	3.0 J	2.7 J	<5.0	<5.0	5
Acetone	<68 U	<69 U	2.7 J	1.5 J	NP
Chloroform	2.4 J	2.4 J	<5.0	<5.0	7
Chloromethane	<5.0	<5.0	<5.0	<5.0	NP
Methylene Chloride	<5.0	<5.0	1.3 J	<5.0	5
Tetrachloroethene	7.2	8.0	<5.0	<5.0	5
Toluene	<5.0	<5.0	<5.0	<5.0	5
Trichloroethene	40	40	<5.0	<5.0	5
TOTAL VOCs	128.6	133.0	4.0	1.5	

NOTES:

Diffusion bags were deployed July 15, 2008 and were retrieved and sampled on July 29, 2008.

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.

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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.

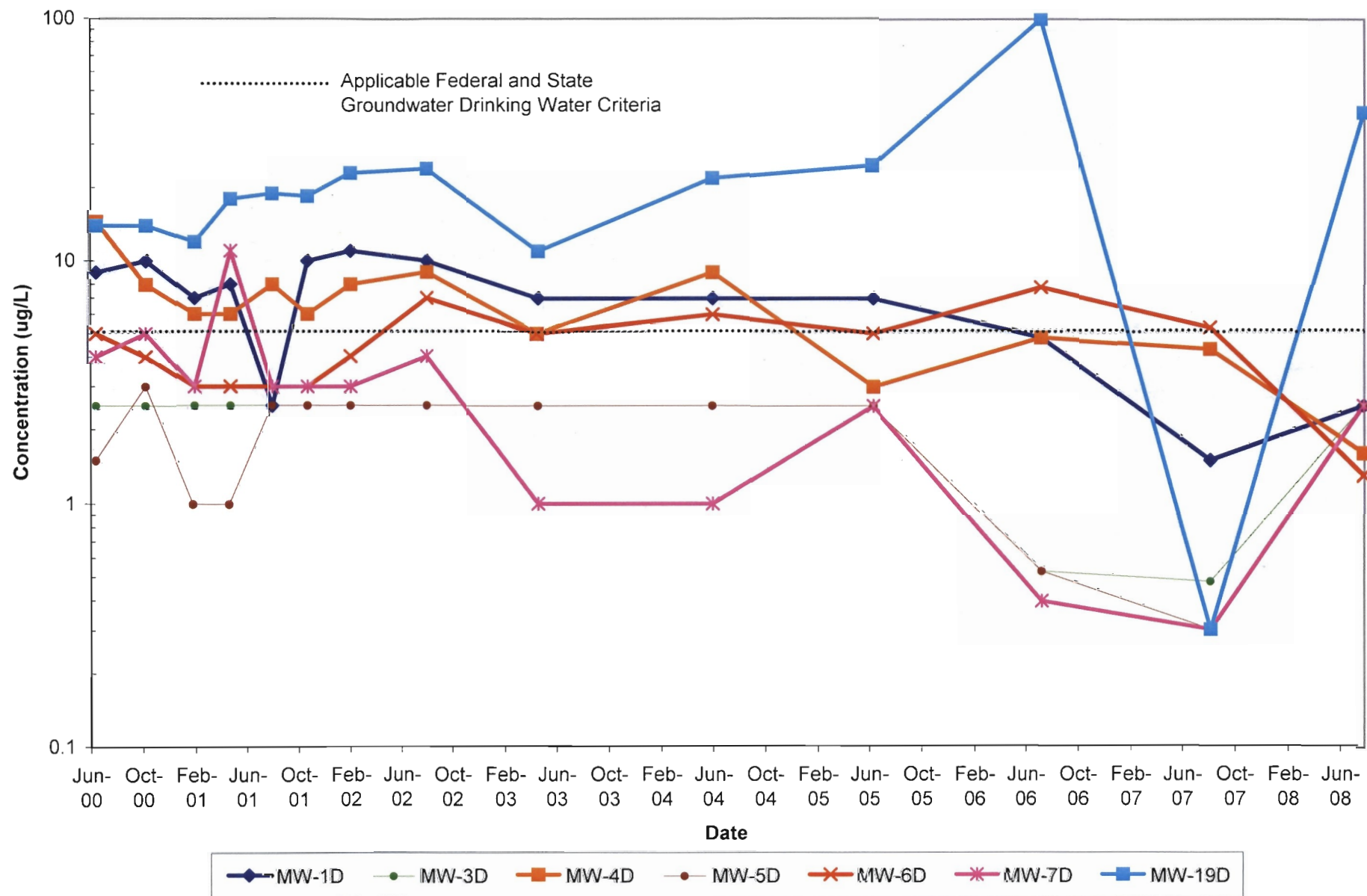
R: Indicates the data is unusable.

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

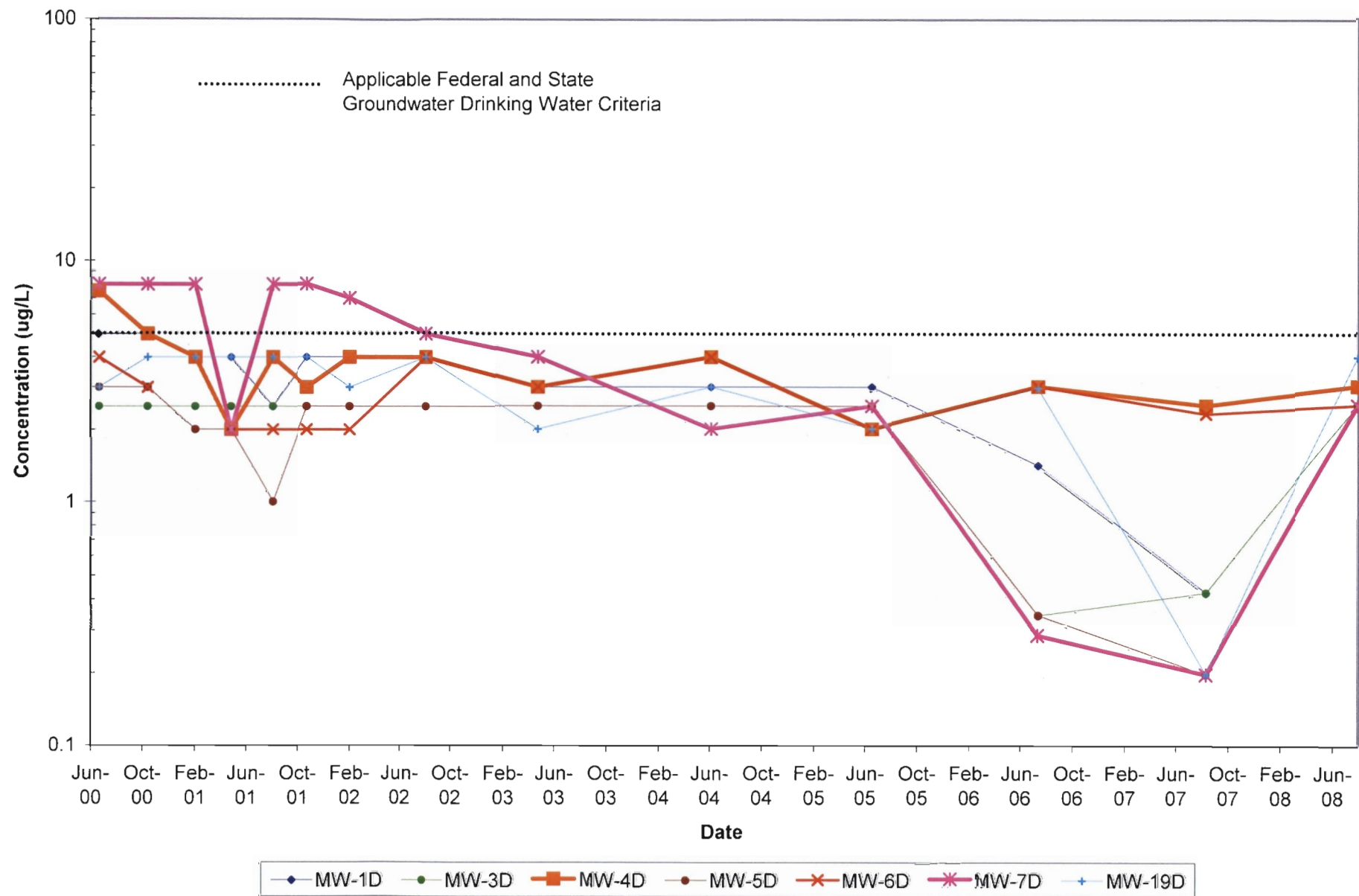
Appendix B
Time-Series Geochemical Graphs for
Shallow & Deep Wells

Appendix B
Time-Series Geochemical Graphs for Shallow and Deep Wells

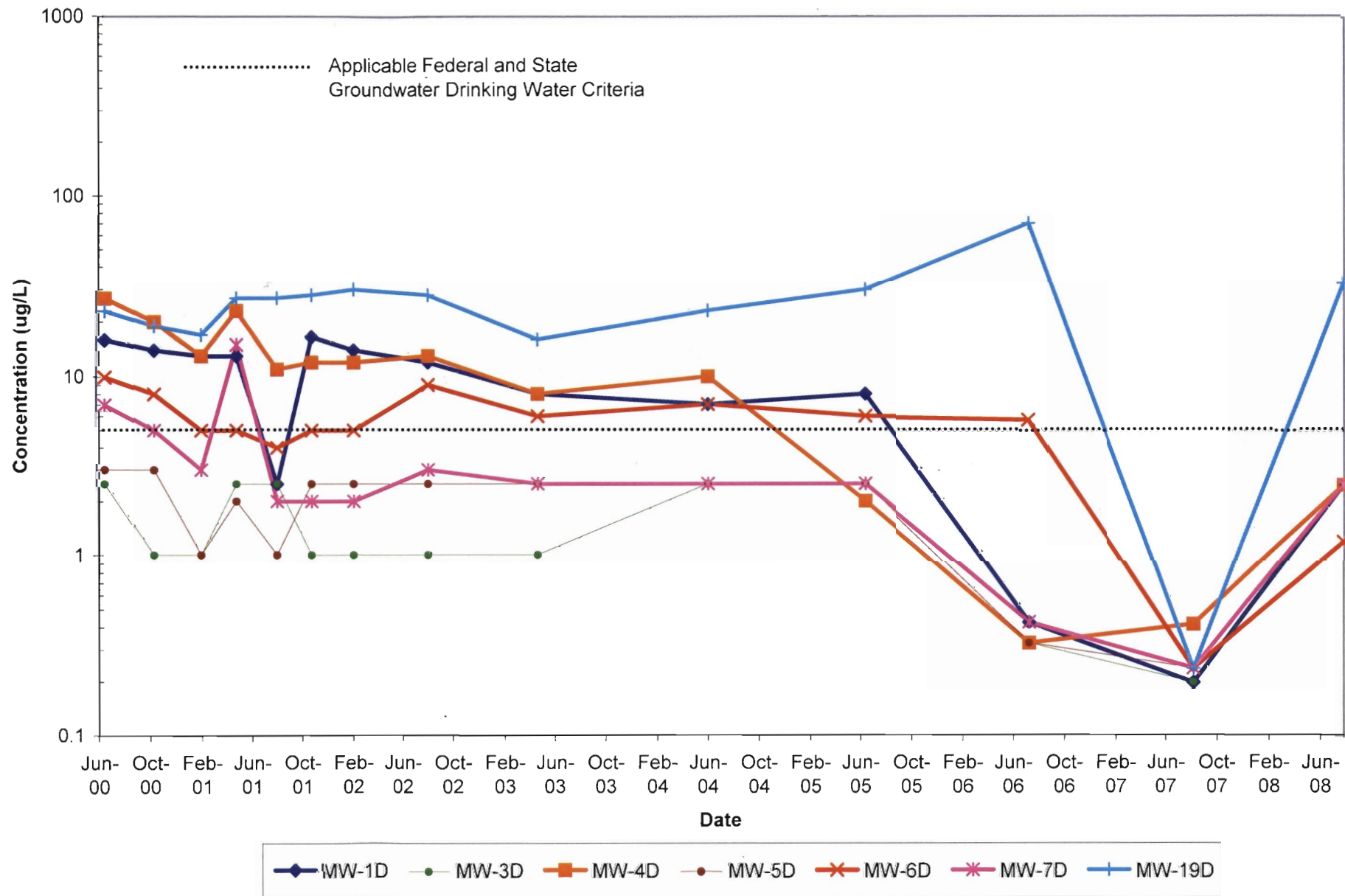
1,1-Dichloroethene Time-Series Graph **Deep Wells** **CIRCUITRON CORPORATION SUPERFUND SITE**



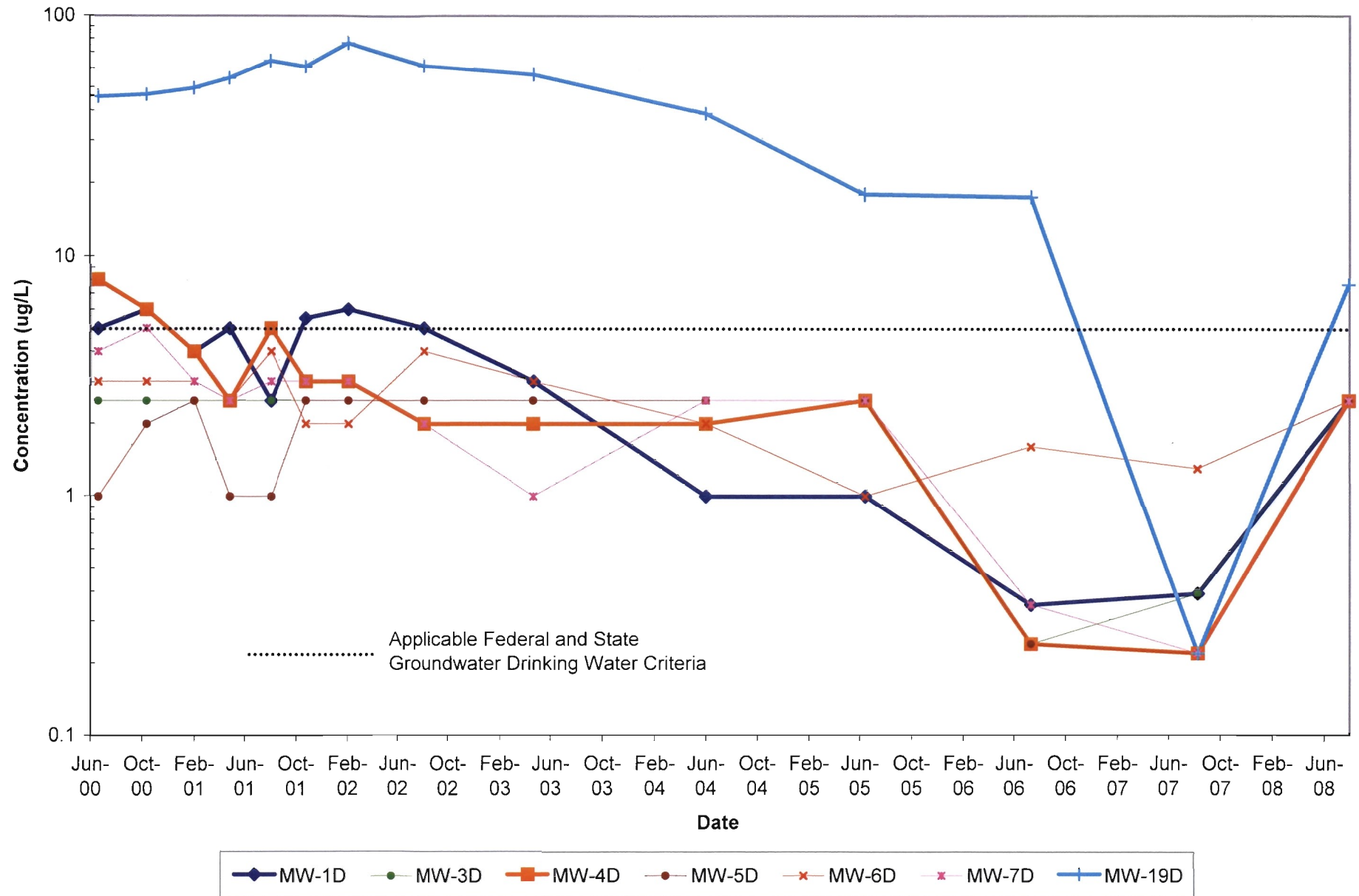
1,1-Dichloroethane Time-Series Graph **Deep Wells** **CIRCUITRON CORPORATION SUPERFUND SITE**



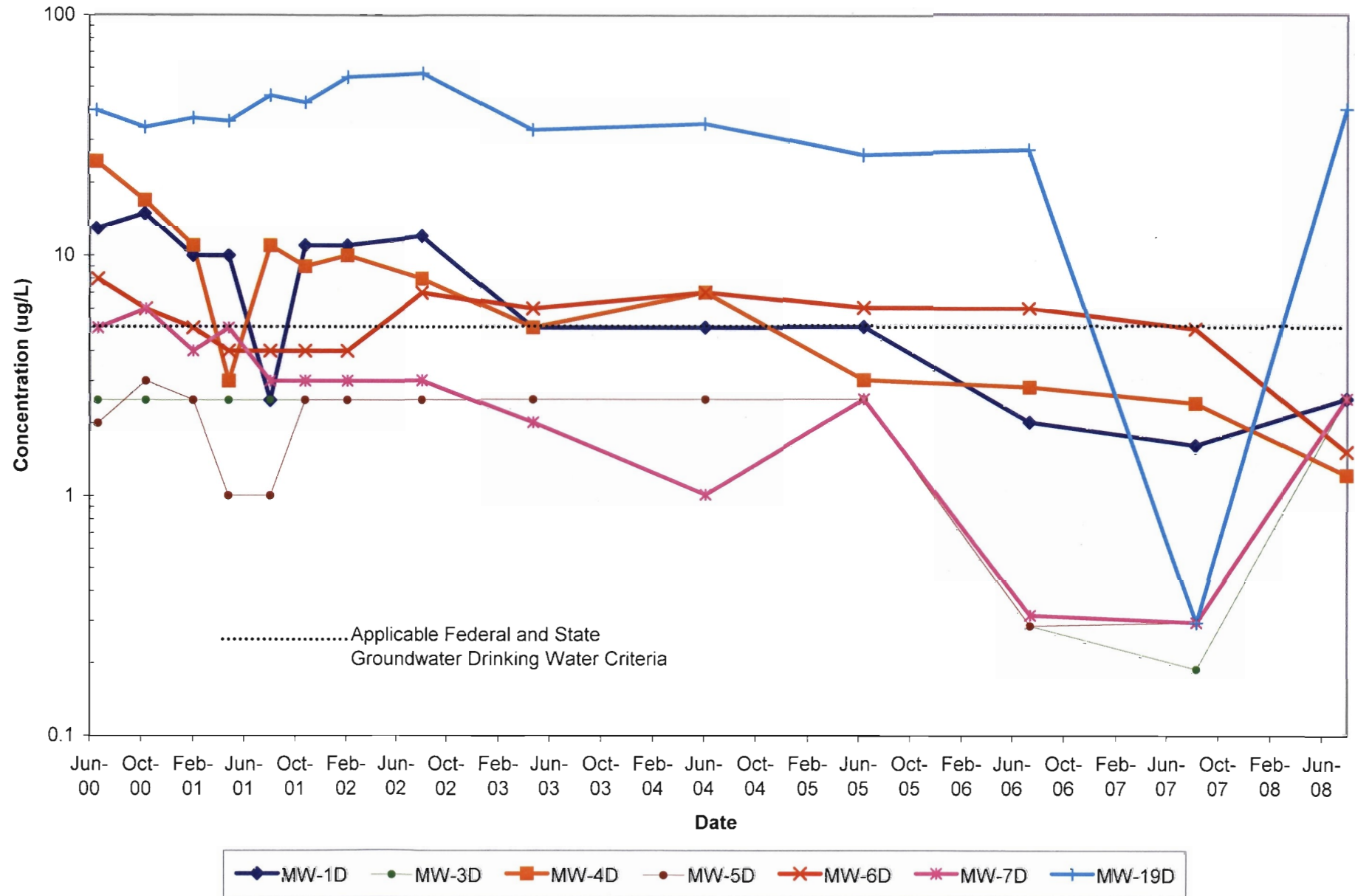
1,1,1-Trichloroethane Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



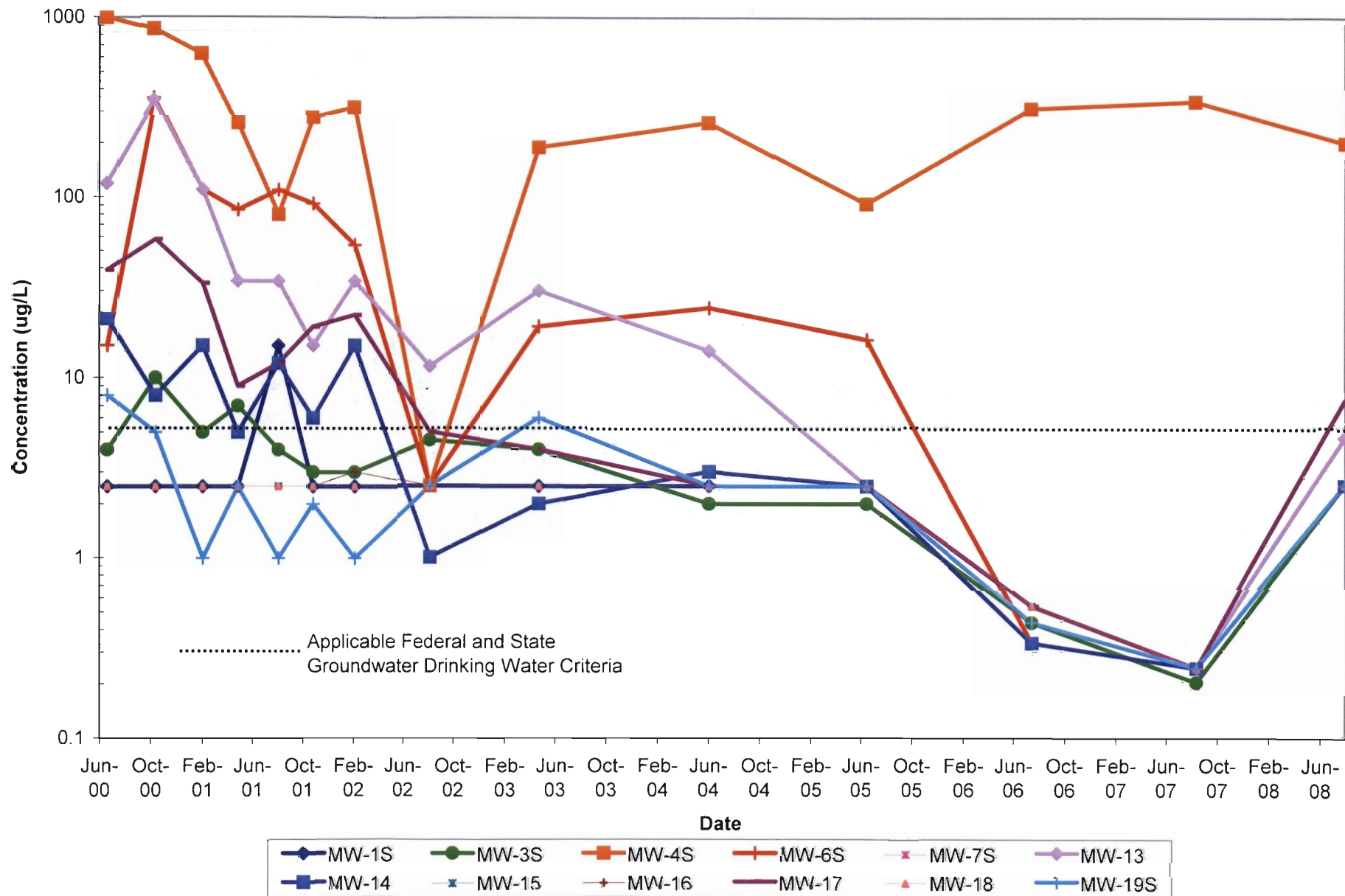
Tetrachloroethene Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



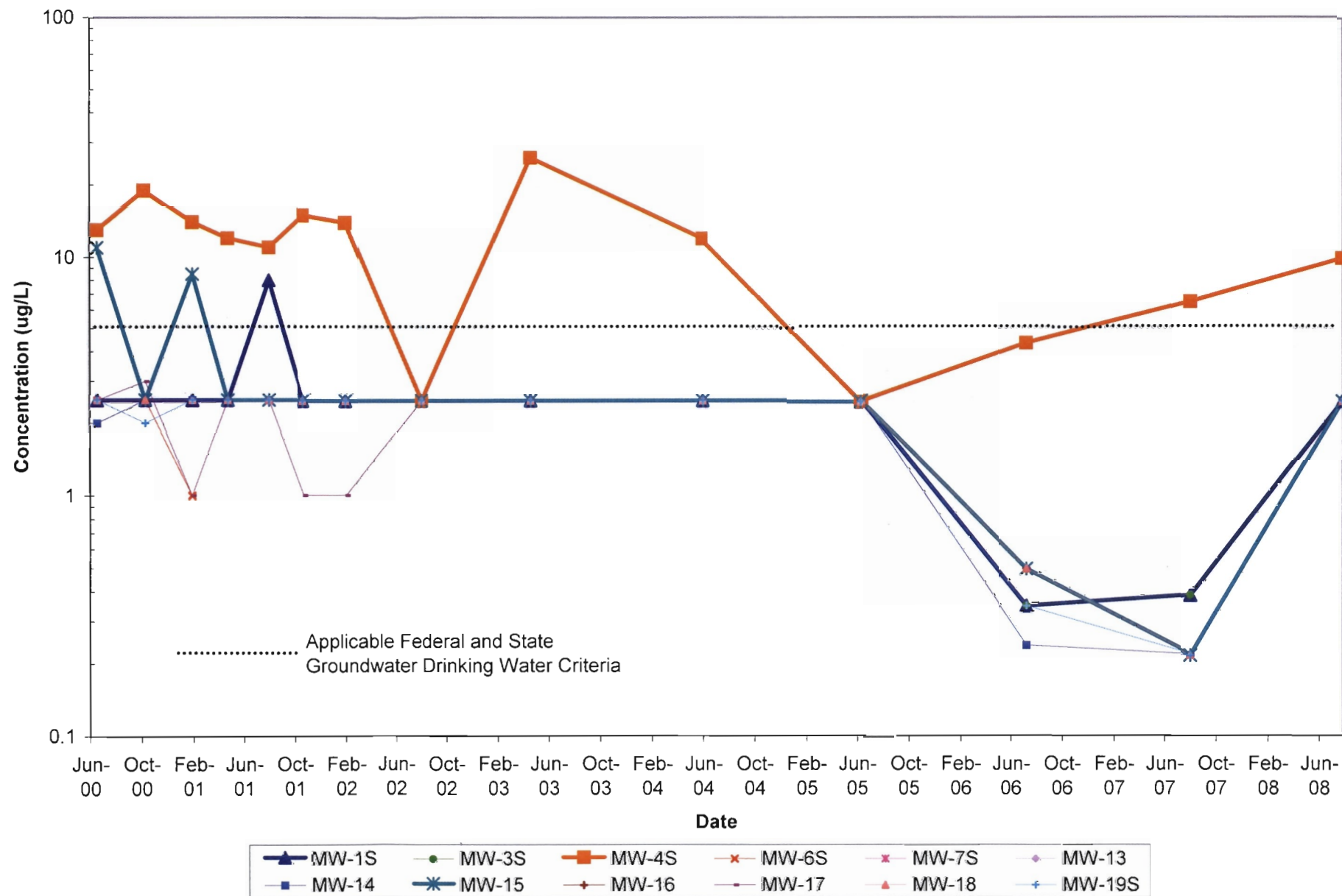
Trichloroethene Time-Series Graph
Deep Wells
CIRCUITRON CORPORATION SUPERFUND SITE



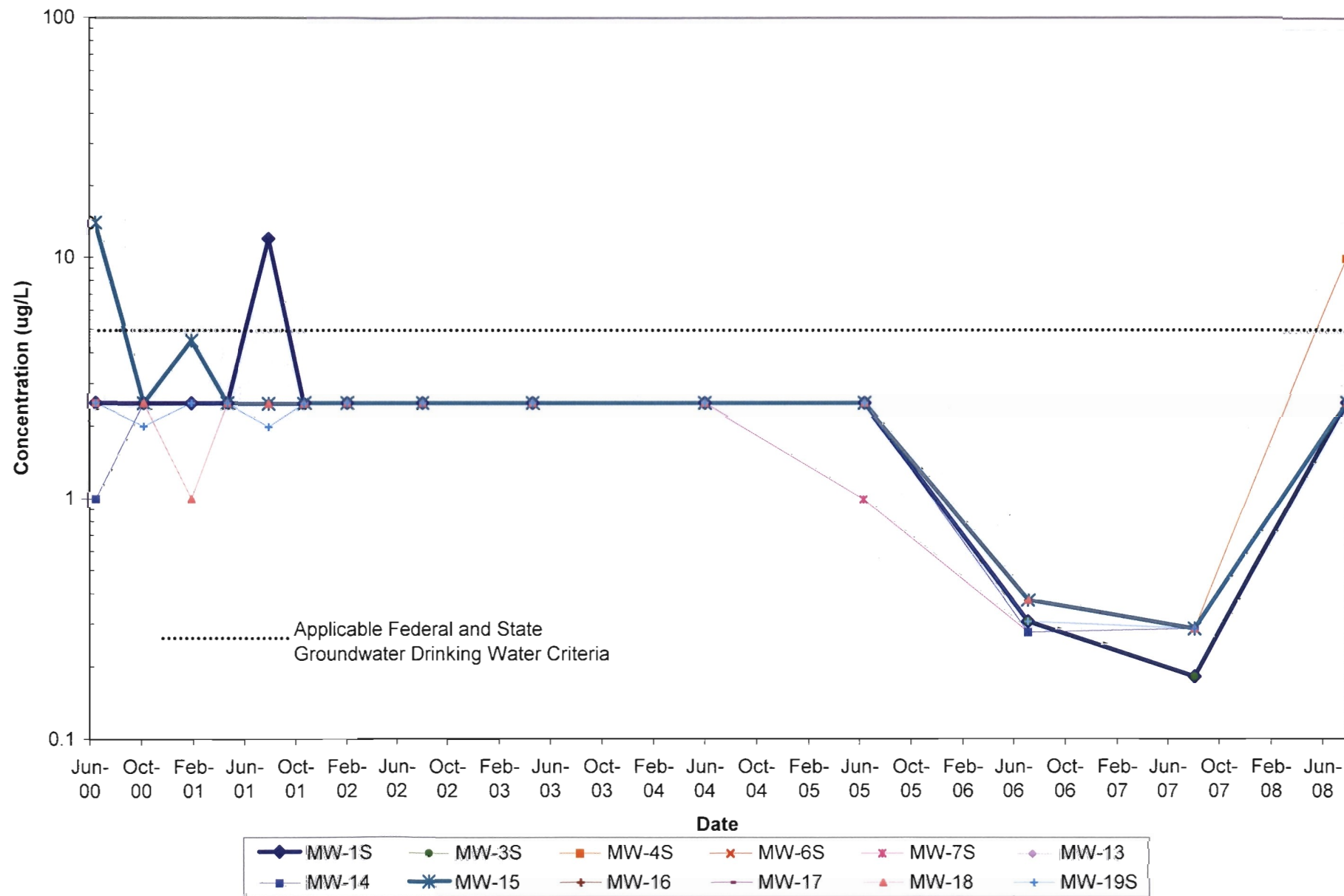
**1,1,1-Trichloroethane Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE**



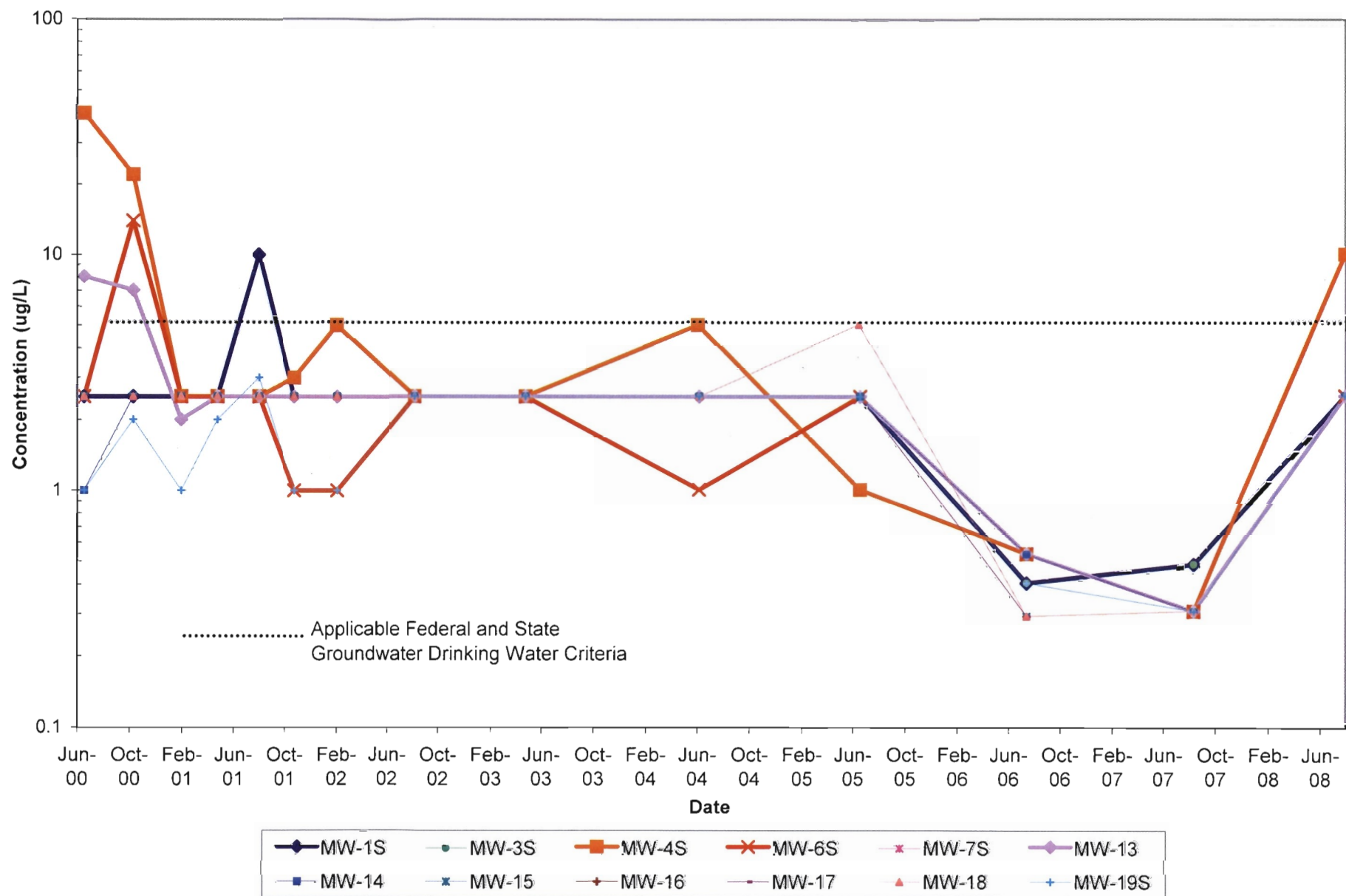
Tetrachloroethene Time-Series Graph **Shallow Wells** **CIRCUITRON CORPORATION SUPERFUND SITE**



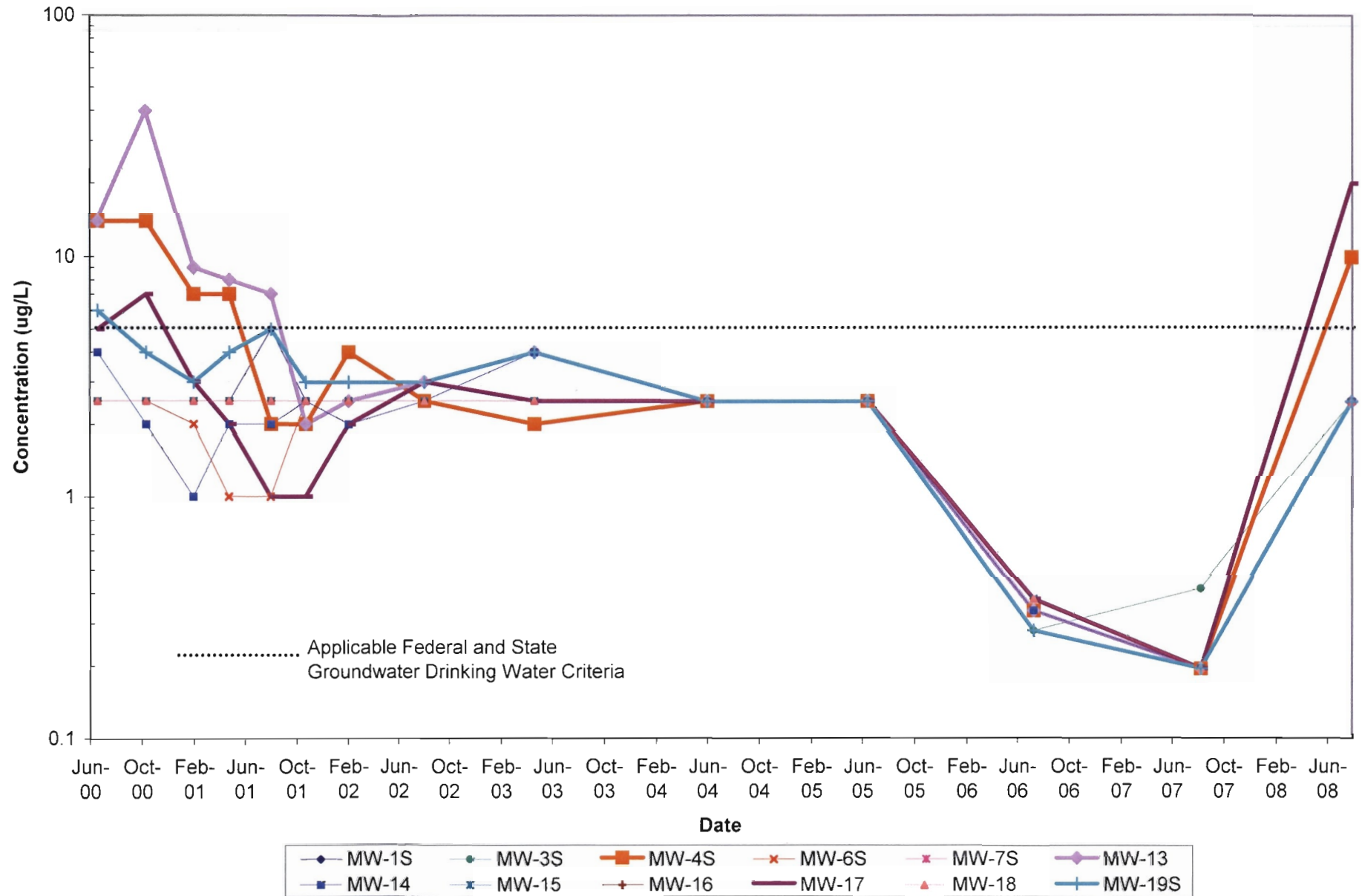
Trichloroethene Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



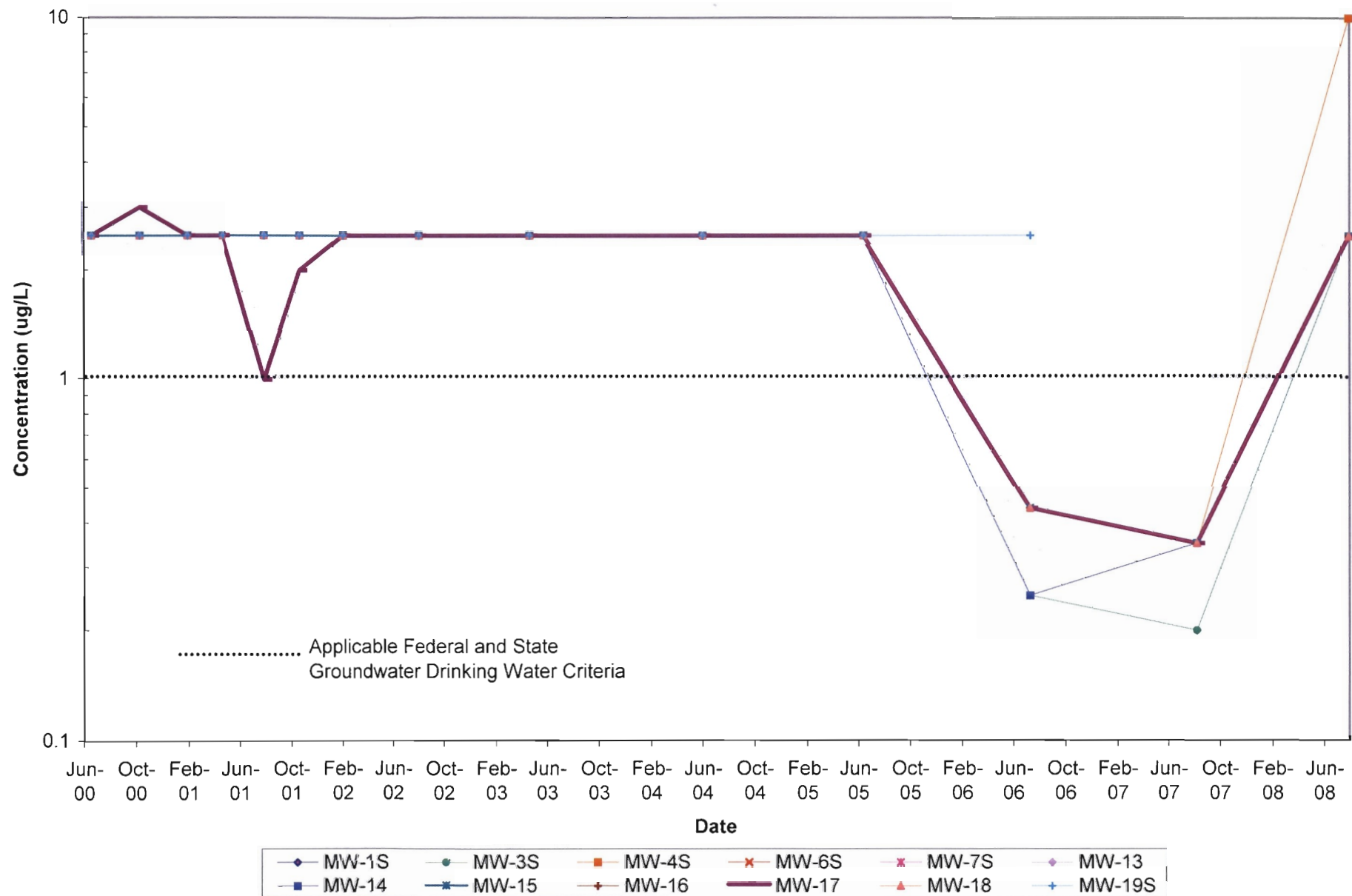
1,1-Dichloroethene Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



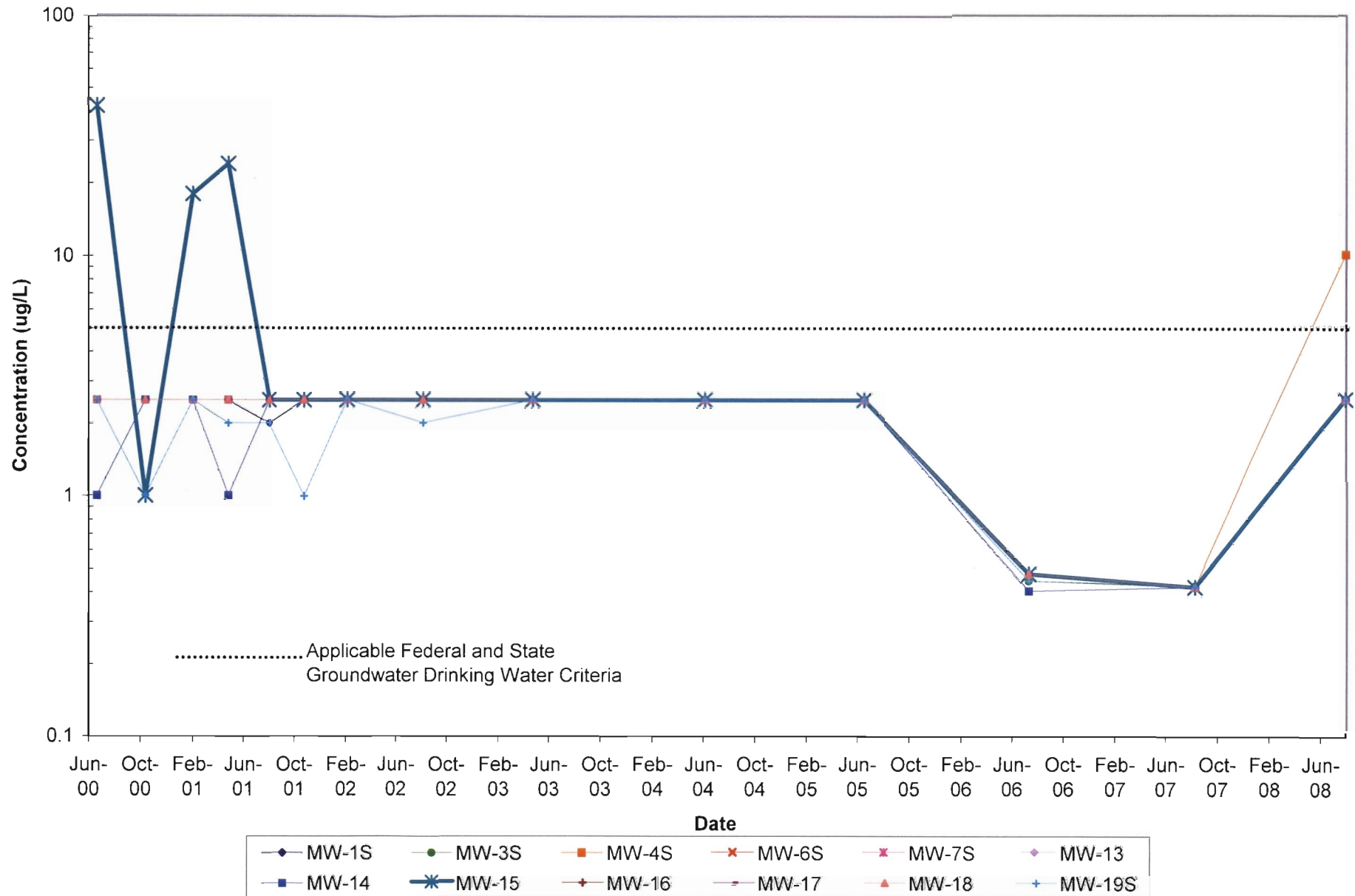
1,1-Dichloroethane Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE



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

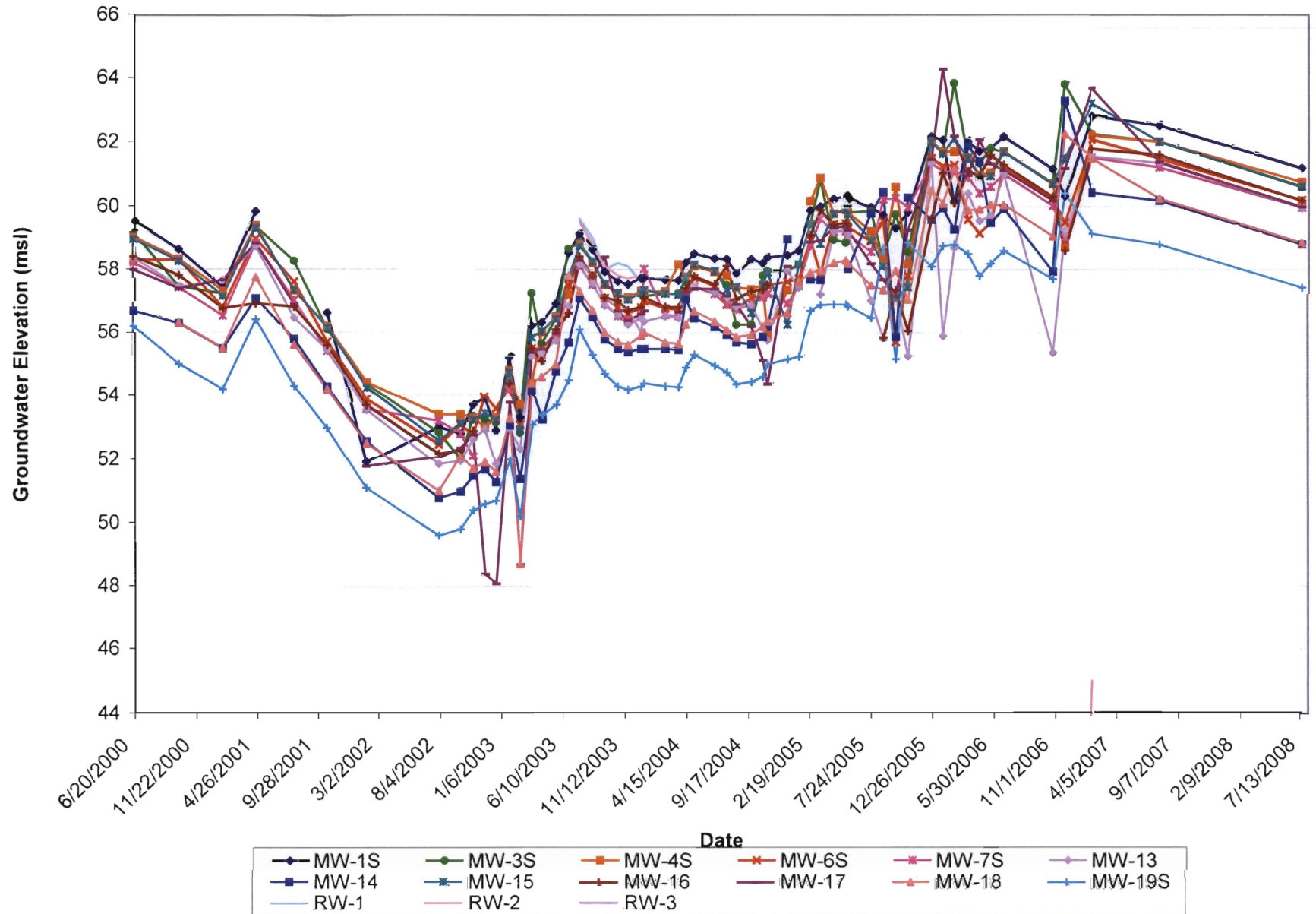


**1,2 Dichloroethene (total) Time-Series Graph
Shallow Wells
CIRCUITRON CORPORATION SUPERFUND SITE**

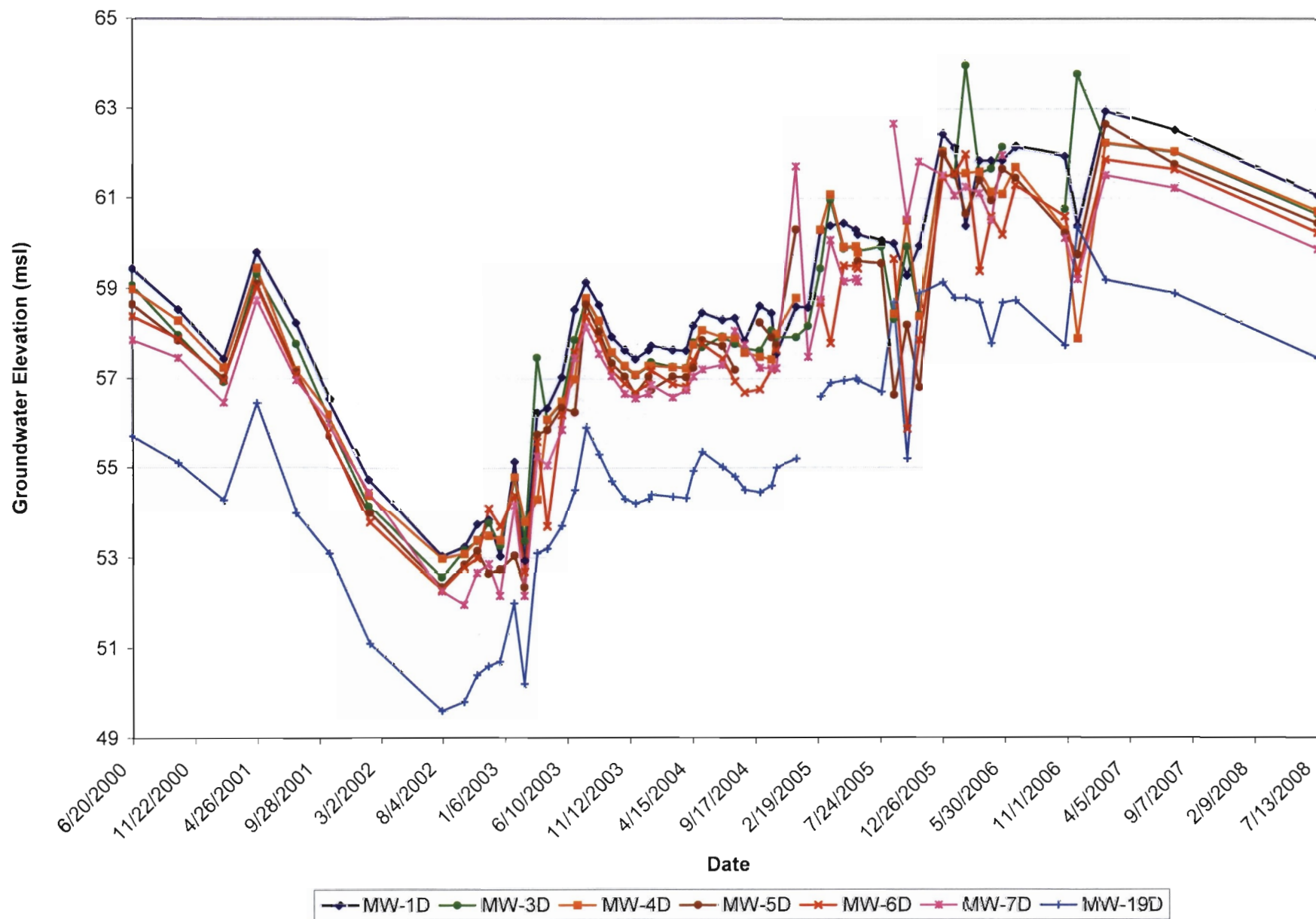


Appendix C
Hydrographs for Shallow and Deep Wells

Hydrograph of Shallow Wells **CIRCUITRON CORPORATION SUPERFUND SITE**



Hydrograph of Deep Wells CIRCUITRON CORPORATION SUPERFUND SITE





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