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ENVIRONMENTAL

Mr. Payson Long
Remedial Bureau E
Section D
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Subject:
McKesson Envirosystems
Bear Street Site
Syracuse, New York
Site No. 07-34-020

Date:
January 15, 2013

Contact:
David J. Ulm

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Our ref:
B0026003.0000.00190 #2

Dear Mr. Long:

ARCADIS of New York, Inc. (ARCADIS) prepared this Site Management Periodic Review Report (PRR) for the McKesson Envirosystems Bear Street Site, located at 400 Bear Street West in Syracuse, New York (site), on behalf of McKesson Corporation to fulfill the requirements set forth by Section 6.3(b) of the DER-10 Technical Guidance for Site Investigation and Remediation (New York State Department of Environmental Conservation [NYSDEC] 2010a). This PRR describes the operation and maintenance (O&M) activities conducted at the site and the monitoring results obtained from July through December 2012.

This PRR also fulfills the requirements of the NYSDEC-approved Site Operation and Maintenance Plan (Site O&M Plan; Blasland, Bouck & Lee, Inc. [BBL] 1999a) and the December 29, 1999 letter from Mr. David Ulm (BBL) to Mr. Michael Ryan, P.E. (NYSDEC), which presented the long-term process control monitoring program as an addendum to the Site O&M Plan (BBL 1999b). The long-term process control monitoring program was modified by ARCADIS' September 3, 2010 modification proposal letter (ARCADIS 2010a) and the NYSDEC's modification proposal response letter dated September 23, 2010 (NYSDEC 2010b). The Site O&M Plan (BBL 1999a), the addendum to the Site O&M Plan (BBL 1999b), and the 2010 modifications (ARCADIS 2010a and NYSDEC 2010b) are collectively referred to herein as the Site O&M Plan and associated documents (BBL 1999a and 1999b, ARCADIS 2010a, and NYSDEC 2010b).

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Finally, this PRR puts forth a strategy for discontinuing groundwater treatment system operations at Operable Unit 2 (OU2), and the implementation of a post-remedial monitoring program. In accordance with DER-10 Section 6.4(a) (NYSDEC 2010a), this PRR describes how the remedial action objectives (RAOs) for groundwater quality (as stated in the 1997 NYSDEC Record of Decision [ROD]) and the remedial process closure requirements have been met based on monitoring results documented from July 1998 to October 2012.

This PRR is arranged in the following sections:

Site Background and Remedial Treatment Program Activities

- *Site Remediation Background.* Summarizes the history of the remediation activities at the site and Site O&M Plan modifications (ARCADIS 2010a and NYSDEC 2010b).

- *In-Situ Aerobic Bioremediation Treatment Program Activities.* Discusses the *in-situ* aerobic bioremediation treatment program activities conducted at the site from July through December 2012.

Process Control Monitoring and Evaluation

- *Hydraulic Process Control Monitoring.* Provides the results of the hydraulic process control monitoring activities conducted at the site from July through December 2012.

- *Institutional and Engineering Controls.* Identifies the institutional and engineering controls that are currently in place.

- *Chemical of Concern Process Control and Biannual Groundwater Monitoring Program.* Provides the October 2012 results of the constituent of concern (COC) process control and Biannual Groundwater Monitoring Program, and summarizes the COC data obtained at the site from 1988 through October 2012.

- *Conclusions.* Provides conclusions based on the results of the process control monitoring activities.

Attainment of RAOs and Recommendations

- *Attainment of OU2 RAOs*. Identifies RAOs stated in the OU2 ROD for COCs and evaluates each RAO against the COC groundwater data collected since the initiation of the OU2 *in-situ* bioremediation treatment program.

- *Recommendations*. Describes the proposed recommendation for site closure and for the discontinuation of groundwater treatment control and implementation of post-remedial monitoring.

Summary

- Summarizes key points addressed in this letter.

Site Background and Remedial Treatment Program Activities

Site Remediation Background

The 8.6-acre site is divided into three areas (Areas 1, 2, and 3; as shown on Figure 1), and consists of two parcels (029-300-380 and 029-300-390). Additionally, the site is divided vertically into two OUs: OU1 – Unsaturated Soil and OU2 – Saturated Soil and Groundwater. The NYSDEC-selected remedy for both OUs includes ongoing O&M activities. The ROD for OU1 signed in March 1994 (OU1 ROD; NYSDEC 1994) called for *in-situ* aerobic bioremediation of the unsaturated soils comprising OU1. A ROD for OU2 signed in March 1997 (OU2 ROD; NYSDEC 1997) called for anaerobic bioremediation of groundwater and saturated soil. Biannual reports detailing both the O&M activities and results of the process control monitoring program have been submitted to the NYSDEC since OU1 remedial activities were completed in 1994/1995 and OU2 *in-situ* anaerobic bioremediation treatment activities commenced in July 1998. The site continues to be used for commercial/industrial purposes.

The OU1 bioremediation remedy successfully treated an estimated 20,000 cubic yards (cy) of contaminated soil to the technology-based cleanup levels. The treated area was backfilled with gravel to provide a minimum of 1 foot of clean fill material over the treated soils, promote surface water runoff, and limit infiltration (BBL 1995). The initial components of the remedy implemented for OU2 are identified below:

- An infiltration trench and a withdrawal trench were installed upgradient and downgradient, respectively, of Area 3 as a means to introduce Revised Anaerobic Mineral Media- (RAMM-) amended groundwater into the shallow hydrogeologic unit while maintaining hydraulic control. The introduction of RAMM supplied macronutrients and micronutrients to enhance naturally occurring anaerobic biodegradation of the COCs.

- Two additional infiltration trenches were installed within Area 3 to increase the distribution of RAMM-amended groundwater within this area and to act as overflow devices if the amended groundwater in the aforementioned infiltration trench exceeds maximum capacity.

- Groundwater was pumped from the withdrawal trench, amended with RAMM, and distributed into the shallow hydrogeologic unit via the infiltration trenches described above.

- Two infiltration trenches were installed in both Areas 1 and 2. RAMM-amended groundwater was periodically introduced into these trenches by manually filling standpipes screened within the filter pack of the trenches (i.e., within the shallow hydrogeologic unit). Groundwater used for the RAMM amendment was pumped from pumping well MW-26S because COCs were not detected in any of the groundwater samples from this well, the adjacent monitoring well MW-13S, or the previously existing adjacent monitoring well MW-14D that was abandoned during the OU2 remediation activities.

Figure 1 shows the locations of the withdrawal trench and the infiltration trenches. The trenches in Area 3 have been designated as main infiltration trench "C", secondary infiltration trench "B", and secondary infiltration trench "A". In addition to the aforementioned components, the remedy for OU2 initially included the following:

- Conducting a process control monitoring program to monitor the effectiveness of the *in-situ* anaerobic bioremediation treatment systems

- Introducing RAMM into the shallow hydrogeologic unit within each of the three areas, at discrete locations throughout each area, using a truck-mounted vertical injection mast. Two discrete RAMM injection events were conducted: an initial event from August 5 to 12, 1998 and a second event on August 28, 29, and 30, 2000.

A process control monitoring program was implemented to monitor the effectiveness of the *in-situ* anaerobic bioremediation treatment systems. The process control monitoring program included hydraulic, biological, and COC monitoring. Ongoing O&M activities are performed as part of the NYSDEC-selected remedies for OU2. These O&M activities, in general, include the following:

- Conducting biannual groundwater monitoring in association with the NYSDEC-selected remedy for OU2
- Operating and maintaining the *in-situ* anaerobic bioremediation systems installed as part of the NYSDEC-selected remedy for OU2
- Conducting process control monitoring in association with the remedy for OU2.

The data obtained during the process control monitoring program have been periodically reviewed. In 2004, the periodic review of the data obtained as part of the monitoring program suggested that concentrations of aniline and N,N-dimethylaniline near MW-8S (Area 3) and TW-02R (Area 2) were not being reduced as successfully as in other areas of the site. A selected excavation program was designed and implemented for the removal of 65 cy of saturated soil near MW-8S and approximately 6 cy of saturated soil around TW-02R. The backfill placed in the Area 3 excavation was amended with RAMM to facilitate the anaerobic degradation of COCs in groundwater that entered that area of the site. In addition, three well points were installed around monitoring wells MW-27, MW-28, and MW-33 to allow for additional RAMM amendments to these areas of relatively higher COC concentrations.

After evaluating the biological data (i.e., microbiological analytes, indicator compounds, and permanent gases) obtained during the first 6 years of monitoring, it was concluded that the biological data consistently verified that the saturated soils/ groundwater of the shallow hydrogeologic unit within each area are conducive to anaerobic bioremediation and that there are sufficient carbon electron acceptors and nutrients to sustain microbial activity in each of the three areas. Therefore, the biological portion of the monitoring program was eliminated following the first sampling event in 2005.

In 2006, the periodic review of the COC data suggested that the *in-situ* anaerobic treatment program was effectively reducing the concentrations of volatile organic

COCs, but concentrations of semivolatile organic COCs (aniline and N,N-dimethylaniline) were not being reduced in a timely manner. The OU2 *in-situ* anaerobic bioremediation treatment program was modified to an *in-situ* aerobic bioremediation treatment program in August 2006. From August 2006 to October 2008, the *in-situ* aerobic bioremediation treatment program consisted of amending the groundwater with an oxygen source (dilute hydrogen peroxide) and macronutrients. The *in-situ* aerobic bioremediation treatment program was modified in October 2008 to provide a new and continuous source of oxygen to Areas 2 and 3; however, dilute hydrogen peroxide continues to be added to Area 1. The modifications included the following:

- Constructing an oxygen gas diffusion system in both Areas 2 and 3 (Figures 2 and 3, respectively)
- Installing an aerator stone in the equalization tank of the Area 3 treatment system to add oxygen gas to the groundwater before it is pumped into the infiltration trenches.

In October 2008, macronutrient amendments were discontinued in Areas 1, 2, and 3.

In 2010, the periodic review of the data obtained as part of the monitoring program suggested that concentrations of aniline in the area between TW-02RR and MW-36 were not being reduced as successfully as in other areas of the site. A selected excavation program was designed and implemented for the removal of 117.39 tons of saturated soil from Area 2. The backfill placed in the Area 2 excavation was amended with Oxygen Release Compound® (ORC®) to facilitate the aerobic degradation of COCs in groundwater that entered that area of the site. In addition, a system of five standpipes was installed within the excavation area to allow for additional ORC® amendments.

Based on historical groundwater monitoring and analytical data trends, the following modifications were made to the long-term process control monitoring program beginning in October 2010:

- Eliminating methanol analyses in select wells/piezometers
- Removing select wells from the COC monitoring program

- Removing select deep wells/piezometers from the hydraulic monitoring program
- Abandoning select wells/piezometers.

In addition, the NYSDEC added MW-4S to the COC monitoring program as a downgradient sentinel well for Area 2. Groundwater samples collected at MW-4S are analyzed for all site COCs, excluding methanol. Because there were no detections of COCs at this location at concentrations above the NYSDEC Groundwater Quality Standards during the October 2010 sampling event, the low hydraulic gradient near this well, and its relatively remote location on site (Figure 1), MW-4S is included in the sampling program every third biannual sampling event. Samples were collected during the October 2010 and April 2012 sampling events and will be collected from this well again in a sampling event in the latter part of 2013.

Beginning in June 2011, the *in-situ* aerobic bioremediation treatment program was modified to include monthly injections of ORC®-amended groundwater into the five standpipes within Area 2. The ORC® was the product leftover from the December 2010 excavation work. Monthly ORC®-amended groundwater injections ended in December 2011.

In-Situ **Aerobic Bioremediation Treatment Program Activities**

In July 2006, the NYSDEC verbally approved the *in-situ* aerobic bioremediation treatment program as an alternate approach to lowering concentrations of aniline and other COCs (i.e., benzene, toluene, ethylbenzene, and xylene [BTEX]; acetone; methanol; N,N-dimethylaniline; methylene chloride; and trichloroethene) at the three areas. This treatment program consists of introducing an oxygen source and macronutrients into Areas 1, 2, and 3. The oxygen source for all three areas between August 10, 2006 (beginning of the *in-situ* aerobic bioremediation treatment program) and October 27, 2008 (modifications to the *in-situ* aerobic bioremediation treatment program) was dilute hydrogen peroxide at a concentration of 200 parts per million (ppm). The macronutrients were added at an approximate carbon:nitrogen:phosphorus ratio of 50:25:10 in the form of Miracle-Gro®.

In October 2008, the *in-situ* aerobic bioremediation treatment program was modified to include an oxygen infusion system to provide a continuous source of oxygen gas to the groundwater in Areas 2 and 3 via iSOC® units. An oxygen diffuser (i.e., Oxygen Edge Unit) was also installed in the Area 3 equalization tank in January

2009. Dilute hydrogen peroxide amendments continue to be added to groundwater in Area 1, but macronutrient amendments were discontinued.

The following activities were conducted as part of the treatment program during the current reporting period (July through December 2012) (see Figures 1, 2, and 3 for referenced locations):

- Added dilute hydrogen peroxide-amended groundwater into the infiltration trenches in Area 1 (monthly).
- Added dilute hydrogen peroxide-amended groundwater into piezometers in Area 1 (PZ-S, PZ-G, PZ-Q, and PZ-R) and to well points in Area 1 (WP-4 and WP-5; monthly).
- Added oxygen gas to groundwater via infusion wells in Area 2 (IW-1, IW-2, IW-3, IW-4, and IW-5).
- Added oxygen gas to groundwater via infusion wells in Area 3 (IW-6, IW-7, IW-8, IW-9, IW-10, IW-11, IW-12, and IW-13).
- Added oxygen gas to groundwater in the Area 3 equalization tank.
- Measured dissolved oxygen (DO) levels in the field each month in Area 1 (MW-33), Area 2 (MW-36R and TW-02RRR), and Area 3 (MW-27, MW-28, and MW-8SR).

The dilute hydrogen peroxide that was added to the groundwater in Area 1 was added at a concentration of 200 ppm. Oxygen gas was continuously added to the Area 2 and 3 infusion wells, resulting in a groundwater concentration of at least 40 ppm at the infusion wells. Oxygen gas was continuously added to the Area 3 equalization tank at a concentration of approximately 25 ppm.

In Area 3, the *in-situ* aerobic bioremediation treatment system and the hydraulic process control system operated properly during the current reporting period (July through December 2012). No substantial system repairs were required. Approximately 861,965 gallons of water were pumped from the withdrawal trench and introduced into the Area 3 infiltration trenches, as detailed in this PRR.

The fencing around the site, which serves as an engineering control, was inspected and observed to be intact.

Process Control Monitoring and Evaluation

Hydraulic Process Control Monitoring

The hydraulic process control monitoring program was established in each of the three impacted areas to:

- Confirm that containment has been established in each area.
- Verify that the groundwater withdrawal rates in Area 3 do not cause the freshwater/ saltwater interface to upcone to the bottom of the withdrawal trench.
- Verify that saturated soil/groundwater conditions within the shallow hydrogeologic unit are conducive to microbial degradation of the COCs by aerobic microbial populations.
- Optimize the system operation performance in Area 3.

As part of the hydraulic process control monitoring, groundwater level measurements were obtained at monitoring wells and piezometers that are screened entirely within the sand layer of the shallow hydrogeologic unit and located in and around each of the three areas. Additionally, the Barge Canal surface-water elevation was obtained from measurements made from a reference point on the Bear Street Bridge, which passes over the canal. The hydraulic process control monitoring was conducted on October 1, 2012. Monitoring locations are listed in Table 1 and shown on Figure 1. Mr. Payson Long (NYSDEC) was notified of the second 2012 hydraulic and COC monitoring event by ARCADIS via email on September 19, 2012.

Table 2 summarizes the groundwater elevation measurements obtained during the October 1, 2012 hydraulic process control monitoring event, as well as those obtained since October 2006 (just after initiating the *in-situ* aerobic bioremediation treatment program). Table 1 of Attachment A summarizes the historical groundwater elevation measurements obtained from June 1998 (immediately prior to commencing the *in-situ* anaerobic bioremediation treatment activities) through June 2006 (prior to initiating the *in-situ* aerobic bioremediation treatment program). Figure 4 depicts the potentiometric surface of the site's shallow hydrogeologic unit using the October

2012 data set. Site-wide groundwater elevations for this round of sampling were consistent with elevations measured since startup of the treatment system. The results and corresponding conclusions of the hydraulic process control monitoring are summarized below:

- A closed-loop hydraulic cell continues to be maintained in Area 3, as shown on Figure 4. This groundwater containment is an engineering control for the site.
- The groundwater withdrawal rate in Area 3 ranged from approximately 1.41 to 3.03 gallons per minute from July through December 2012.
- The withdrawal of groundwater continues to induce a hydraulic gradient in Area 3 from perimeter monitoring wells MW-23S, MW-25S, and MW-24SR toward the withdrawal trench.
- In Area 3, approximately 25 percent of the recovered groundwater continued to be introduced to the secondary infiltration trench "B", and the remaining 75 percent continued to be introduced to the primary infiltration trench "C" from July through December 2012.
- The hydraulic data that have been obtained to date, throughout the operating history of the treatment system in Area 3, have consistently indicated no discernable effect on the hydraulic gradient of the deep hydrogeologic unit.

The weekly conductivity measurements of groundwater pumped from the withdrawal trench in Area 3 ranged from approximately 1.47 to 2.30 milliSiemens per centimeter (mS/cm), which is consistent with the range of conductivity levels measured prior to system operation (1 to 4 mS/cm). These measurements are well below the measured conductivity of the deep unit, which is greater than the calibration range of the field instrument (10 mS/cm). These data indicate that operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench. This lack of upconing also indicates that the hydraulic gradient of the deep hydrogeologic unit has not been significantly impacted by withdrawal of groundwater in Area 3.

Institutional and Engineering Controls

A deed restriction was identified as an institutional control in the ROD for OU1. To date, the deed restriction has not been filed.

For the engineering controls identified for the site (i.e., fencing/access control and groundwater containment), the following statements are true:

- The engineering controls employed at the site are unchanged from the date the control was put in place, or last approved by the NYSDEC Division of Environmental Remediation (DER).
- Nothing has occurred that would impair the ability of such controls to protect public health and the environment.
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for these controls.
- Access to the site will continue to be provided to the DER to evaluate the remedy, including access to evaluate the continued maintenance of these controls.

Chemical of Concern Process Control and Biannual Groundwater Monitoring Program

The groundwater COCs for the site are acetone, BTEX, methanol, trichloroethene, aniline, N,N-dimethylaniline, and methylene chloride. The COC process control and Biannual Groundwater Monitoring Program activities were conducted from October 2 through 5, 2012 in accordance with the Site O&M Plan (BBL 1999a). Groundwater samples were analyzed by TestAmerica Laboratories, Inc. in Edison, New Jersey (Nationally Accredited Environmental Laboratory ID #12028) via Methods 8290B, 8270C, and 8015B. In addition, the following groundwater quality parameters were measured in the field during the October 2012 sampling events: pH, temperature, conductivity, DO, and oxidation/reduction potential. Table 1 lists the existing monitoring wells and piezometers used to conduct the long-term process control monitoring program and provides a schedule for implementing this program. The monitoring locations are shown on Figure 1.

In accordance with the requirements of the NYSDEC-approved monitoring program, ARCADIS validated laboratory analytical results for the October 2012 samples. COC groundwater analytical results are summarized in Table 3 and shown on Figures 5 and 6. These figures and table also summarize the COC groundwater analytical results obtained during the biannual monitoring events conducted from March 2009 through October 2012, which collectively represent the results obtained since the start of the modified *in-situ* aerobic bioremediation treatment activities. The COC groundwater analytical results obtained prior to March 2009 are summarized in Table 2 of Attachment A and presented on Figures 1 through 7 of Attachment A. Copies of the validated analytical laboratory reports associated with the October 2012 sampling event are presented in Attachment B. This PRR summarizes the COC analytical results and DO measurements for each of the three areas and the downgradient perimeter monitoring locations.

All COC groundwater analytical results are compared to the NYSDEC Groundwater Quality Standards, as presented in Technical and Operational Guidance Series 1.1.1 (NYSDEC 1998).

During the October 2012 sampling event, the presence or absence of nonaqueous phase liquid (NAPL) was assessed in existing monitoring wells and piezometers based on observations made during the process control monitoring event. NAPL was not identified in any of the monitoring wells or piezometers used during the process control monitoring program.

DO levels continued to be measured monthly at monitoring locations MW-8SR, MW-27, MW-28, MW-33, MW-36R, and TW-02RRR during this reporting period. Table 4 summarizes these DO measurements.

Additionally, the Mann-Kendall Test for Trends was run for the COC data obtained during the aerobic treatment between June 2006 and October 2012 at the monitoring locations sampled as part of the COC process control and Biannual Groundwater Monitoring Program activities. The Mann-Kendall Test for Trends was also run for the DO data obtained between August 2006[1] and December 2012 for monitoring locations MW-8SR, MW-27, MW-28, MW-33, MW-36R, and TW-02RRR.

The COC analytical results and DO measurements for the October 2012 groundwater sampling event are summarized below for each area and downgradient monitoring wells, along with Mann-Kendall Test for Trends results, which integrate the October 2012 data.

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[1] The Mann-Kendall Test for Trends was run for DO concentrations from June 2007 to December 2012 for monitoring location MW-36, and from November 2008 to December 2012 for monitoring locations TW-02RRR and MW-8SR.

Sentinel Wells. COCs were not detected at sentinel well MW-3S above their respective NYSDEC Groundwater Quality Standards (Table 3 and Figure 5). Sentinel well MW-4S was not sampled during the October 2012 groundwater sampling event because it is included in the sampling program every third biannual sampling event. The next sample will be collected during the second sampling event of 2013. COCs have not exceeded standards in sentinel wells since June 2005 (aniline in MW-3S).

Area 1

- COC concentrations detected in groundwater samples collected from Area 1 monitoring wells during October 2012 were generally low, ranging from non-detect to concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standards (Table 3 and Figure 5). Thirty-one out of 45 groundwater COCs from all monitoring wells in Area 1 were non-detect. The majority (38 out of 45) of COC concentrations detected were approximately equal to or below concentrations detected during the April 2012 sampling event.

- At TW-01, N,N-dimethylaniline (1.9 parts per billion [ppb]) was detected at a concentration slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb). All other COCs were not detected.

- At MW-9S, benzene (1.9 ppb), total xylenes (84 ppb), and N,N-dimethylaniline (3.9 ppb) were detected above their respective NYSDEC Groundwater Quality Standards (1, 5, and 1 ppb, respectively). All other COCs either were not detected (four of nine) or were detected below their respective NYSDEC Groundwater Quality Standards (two of nine).

- At MW-31, benzene (6.3 ppb) was detected at a concentration above its respective NYSDEC Groundwater Quality Standards (1 ppb). Results of the Man-Kendall Test for Trends show a statistically significant decreasing trend in benzene concentrations at MW-31. All other COCs either were not detected (four of nine) or were detected below their respective NYSDEC Groundwater Quality Standards (four of nine).

- At MW-32, N,N-dimethylaniline (2.2 ppb) was detected at a concentration greater than the NYSDEC Groundwater Quality Standard (1 ppb). All other COCs (eight of nine) were not detected.

- N,N-dimethylaniline (2.1 ppb) was detected at MW-33 at concentrations above its NYSDEC Groundwater Quality Standard (1 ppb). Results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in N,N-dimethylaniline concentrations at MW-33. Aniline was detected in MW-33 at a concentration of 940 ppb at the beginning of the aerobic bioremediation treatment in 2006 and has not been detected at MW-33 since November 2007. Results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in aniline concentrations since June 2006. All other COCs either were not detected (seven of nine) or were detected below their respective NYSDEC Groundwater Quality Standards (one of nine).

- DO levels measured at MW-33 from July through December 2012 ranged from 0.53 to 0.70 ppm (Table 4). Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Therefore, it does not appear that aerobic conditions have been established beyond the points of injection.

<u>Area 2</u>

- COC concentrations detected in groundwater samples collected from Area 2 monitoring wells were generally low, ranging from non-detect to concentrations slightly greater than their respective NYSDEC Groundwater Quality Standards (Table 3 and Figure 5). Twenty out of 36 COCs from all monitoring wells in Area 2 were non-detect. The majority (28 out of 36) of COC concentrations detected were approximately equal to or below concentrations detected during the April 2012 sampling event.

- At TW-02RRR, benzene (1.1 ppb; 0.98 ppb in duplicate sample) and N,N-dimethylaniline (2.2 ppb; 1.9 ppb in duplicate sample) were detected at concentrations above their respective NYSDEC Groundwater Quality Standards (both 1 ppb). Results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in benzene concentrations since June 2006. Since September 1998 (except in April 2011), aniline concentrations have been detected above the NYSDEC Groundwater Quality Standard (5 ppb). However, during the October 2012 sampling event, aniline concentrations were below the standard (<5.2 ppb; 3.2 ppb in duplicate sample). Overall, results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in aniline concentrations since June 2006. All other COCs were either not detected (three of nine) or were detected below their respective NYSDEC Groundwater Quality Standards (three of nine).

- At MW-34, acetone, benzene, and N,N-dimethylaniline (61, 1.6 and 2.7 ppb, respectively) were detected at concentrations above their respective NYSDEC Groundwater Quality Standards (50, 1 and1 ppb, respectively). All other COCs either were not detected (four of nine) or were detected below their respective NYSDEC Groundwater Quality Standard (two of nine).

- At MW-35, no COCs have exceeded the NYSDEC Groundwater Quality Standards since November 2004. During the October 2012 sampling event, all COCs (nine of nine) were not detected.

- At MW-36R, benzene (1.5 ppb), aniline (10 ppb), and N,N-dimethylaniline (3.1 ppb) were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standards (1, 5 and 1 ppb, respectively). Although aniline concentrations have historically been detected above the NYSDEC Groundwater Quality Standard since September 1998 (except in March 2001,October 2002, September 2005, and August 2008), concentrations were relatively low during the October 2012 sampling event (10 ppb) compared to previous sampling events. All other COCs either were not detected (four of nine) or were detected below their respective NYSDEC Groundwater Quality Standards (two of nine).

- DO levels measured in Area 2 (MW-36R and TW-02RRR) between July and December 2012 are summarized in Table 4. The DO levels ranged from 0.51 and 0.68 ppm at MW-36R and from 0.54 to 0.72 ppm at TW-02RRR. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Therefore, it does not appear that aerobic conditions have been established beyond the points of injection.

Area 3

- The majority of COC concentrations detected in groundwater samples collected from Area 3 monitoring wells during the October 2012 sampling event were non-detect or below their respective NYSDEC Groundwater Quality Standards (Table 3 and Figure 5). Thirty-three out of 45 COCs from all monitoring wells in Area 3 were non-detect. Most COC concentrations detected in Area 3 groundwater samples (42 out of 45) were generally consistent with or lower than the concentrations detected in the previous sampling event conducted in April 2012.

- Monitoring Well MW-8SR is located in the center of Area 3, an area that has been identified in the past as containing relatively higher concentrations of COCs (Table 2 of Attachment A). N,N-dimethylaniline concentrations (2.3 ppb; 2.7 ppb in duplicate sample) were detected above the NYSDEC Groundwater Quality Standard (1 ppb). Historically, benzene and total xylene concentrations were detected above their respective NYSDEC Groundwater Quality Standards (1 and 5 ppb, respectively), but during the October 2012 sampling event, both COCs were detected below the standards (benzene: 0.69 ppb; 0.70 ppb in duplicate sample; total xylenes: 1.4 ppb; 1.2 ppb in duplicate sample). Overall, benzene and total xylene concentrations show a statistically significant decreasing trend since June 2006. All other COCs were either not detected (four of nine), or were detected below their respective NYSDEC Groundwater Quality Standards (two of nine). One of the COCs not detected during this sampling event was aniline, which had last exceeded its NYSDEC Groundwater Quality Standard in April 2011. Aniline has not been detected during the past three sampling events, and the results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in aniline concentrations since June 2006. Similarly, ethylbenzene has been detected below the NYSDEC Groundwater Quality Standard during the past three sampling events, and toluene has not been detected above the NYSDEC Groundwater Quality Standard since September 2009. Both COCs show a statistically significant decreasing trend between June 2006 and December 2012.

- At MW-27, benzene (1.1 ppb) and N,N-dimethylaniline (2.2 ppb) slightly exceeded their respective NYSDEC Groundwater Quality Standards (1 ppb for each). Results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in benzene concentrations. Historically, aniline concentrations have exceeded its NYSDEC Groundwater Quality Standard (5 ppb); however, aniline has not been detected during the past two sampling events, and aniline concentrations show a statistically significant decreasing trend since June 2006 (Table 2 of Attachment A). All other COCs were either not detected (five of nine), or were detected below their respective NYSDEC Groundwater Quality Standard (one of nine). Ethylbenzene, toluene, and total xylenes have not been detected above NYSDEC Groundwater Quality Standards for the past three sampling events (since April 2011).

- At MW-28, benzene (1.9 ppb) was the only COC detected above its NYSDEC Groundwater Quality Standard (1 ppb). Results of the Mann-Kendall Test for Trends show a statistically significant decreasing trend in benzene concentrations. All other COCs were either not detected (six of nine), or were not detected above their NYSDEC Groundwater Quality Standards (two of nine). Monitoring well MW-28 has historically exhibited relatively higher concentrations of aniline (Table 2 of Attachment A). In October 2012, aniline was not detected, and has not been detected above the NYSDEC Groundwater Quality Standard (5 ppb) for six consecutive biannual sampling events (since April 2010). Aniline concentrations show a statistically significant decreasing trend between June 2006 and October 2012.

- At MW-29, all COCs were not detected. No COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since May 2003.

- At MW-30, no COCs have exceeded the NYSDEC Groundwater Quality Standards since April 2011 (Table 2 of Attachment A). All COCs were not detected, except benzene (0.099 ppb).

- DO levels measured at MW-8SR, MW-27, and MW-28 between July and December 2012 are summarized in Table 4. The DO levels at MW-8SR ranged from 0.52 to 0.68 ppm. The DO levels at MW-27 ranged from 0.55 to 0.74 ppm. The DO levels at MW-28 ranged from 0.67 to 0.98 ppm. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Therefore, it does not appear that aerobic conditions have been established beyond the points of injection.

Downgradient perimeter monitoring locations. No COCs were detected in three (MW-18, MW-23I, and MW-23S) of the downgradient perimeter monitoring locations during the October 2012 sampling event. In perimeter well MW-17R, no COCs were detected, except benzene (0.55 ppb), although concentrations did not exceed the NYSDEC Groundwater Quality Standard (1 ppb) during the October 2012 sampling event (Table 3 and Figure 6).

Conclusions

The process control monitoring data presented in this PRR were used to monitor and evaluate the effectiveness of the *in-situ* aerobic bioremediation treatment activities.

The following conclusions are based on the process control monitoring data obtained to date:

- COCs in groundwater in Area 3 continue to be contained in the Area 3 treatment system, thus achieving the OU2 remediation goal of "mitigate the potential for migration beyond the site boundary of groundwater that contains concentrations of COCs in excess of their respective NYSDEC Class GA Groundwater Quality Standard". This conclusion is supported by two lines of evidence:
  - A closed-loop hydraulic cell continues to be maintained in Area 3, indicating groundwater containment in this Area.
  - COCs were not detected at concentrations above the NYSDEC Groundwater Quality Standards at any perimeter sampling locations in October 2012.
- Operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench. The lack of upconing indicates that the hydraulic gradient of the deep hydrogeologic unit has not been significantly impacted by withdrawal of groundwater in Area 3.
- In accordance with the objectives of the OU2 ROD (NYSDEC 1997), COC concentrations within saturated soils have been reduced, controlled, or eliminated within Areas 1, 2, and 3, as indicated by the decrease in COC concentrations in groundwater samples collected from July 1998 to October 2012. Furthermore, COC concentrations in the October 2012 sampling event were mostly non-detect or below their respective NYSDEC Class GA Groundwater Quality Standards in each area, indicating that the *in-situ* bioremediation treatment activities starting in July 1998 have facilitated the reduction of COCs. These conclusions are supported by the following lines of evidence:
  - In October 2012, a majority of COC concentrations detected in Area 1 were non-detect or below their respective NYSDEC Groundwater Quality Standards. For more than 9 years, Area 1 has met the standards for acetone, toluene, trichloroethene, and methylene chloride. More recently, Area 1 has met the standards for ethylbenzene and aniline. These results suggest that the *in-situ* anaerobic and aerobic bioremediation treatment programs have worked to reduce a majority of COC concentrations to below their respective NYSDEC Groundwater Quality Standards. A few COCs (i.e., benzene, N,N-

dimethylaniline, and total xylenes) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards. Benzene concentrations appear to have decreased in some parts of Area 1 during the *in-situ* aerobic bioremediation treatment period between June 2006 and October 2012, but demonstrate no significant trend in other parts. No clear conclusions can be drawn as to whether N,N-dimethylaniline concentrations decreased or increased in Area 1 during the *in-situ* aerobic bioremediation treatment period. Total xylene concentrations only exceeded the NYSDEC Groundwater Quality Standard at one monitoring well location (MW-9S) in Area 1.

- During the October 2012 sampling event, aniline concentrations in Area 1 were below the NYSDEC Groundwater Quality Standard at all monitoring wells, including MW-33, located in the downgradient edge of Area 1. Aniline concentrations previously detected in MW-33 have been below the NYSDEC Groundwater Quality Standard for all sampling events conducted since November 2007, and aniline concentrations show a decreasing trend at MW-33 between June 2006 and October 2012, suggesting that the *in-situ* aerobic bioremediation treatment program facilitated the reduction of aniline.

- In October 2012, a majority of the COCs in Area 2 were non-detect or below their respective NYSDEC Groundwater Quality Standards. For more than 9 years, Area 2 has met the NYSDEC Groundwater Quality Standards for toluene, ethylbenzene, trichloroethene, and methylene chloride, suggesting that the *in-situ* anaerobic and aerobic bioremediation treatment programs facilitated the reduction of these COCs to levels below their respective standards. A few COCs (i.e., acetone, benzene, aniline, and N,N-dimethylaniline) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards. Of the three wells with benzene concentrations exceeding the NYSDEC Groundwater Quality Standard, two of the wells show either a decreasing (TW-02RRR) or non-significant trend (MW-36) over this time period. Acetone concentrations only exceeded the NYSDEC Groundwater Quality Standard at one monitoring well location (MW-34) in Area 2.

- In October 2012, aniline concentrations were below the NYSDEC Groundwater Quality Standard at all monitoring locations in Area 2, except at monitoring well MW-36R, located at the downgradient edge of Area 2. Since the start of the *in-situ* aerobic bioremediation treatment program, aniline concentrations have continuously exceeded the NYSDEC Groundwater Quality Standard at wells MW-36R and TW-02RRR (except in April 2011 and October 2012 at well TW-02RRR). Aniline concentrations in wells MW-35 and MW-34 have either been not detected (MW-35) or were sporadically detected above the NYSDEC Groundwater Quality Standard (MW-34) throughout the treatment program. Overall, aniline concentrations show a decreasing trend at monitoring wells MW-35 and TW-02RRR, and a non-significant trend at wells MW-34 and MW-36R, suggesting that the *in-situ* aerobic bioremediation treatment program facilitated the reduction of aniline in Area 2.

- In October 2012, a majority of the COCs in Area 3 were non-detect or below their respective NYSDEC Groundwater Quality Standards. For more than 6 years, Area 3 has met the standards for acetone, trichloroethene, and methylene chloride at all monitoring wells. Within the past year, Area 3 has met the standards for toluene, ethylbenzene, and aniline, and, in October 2012, Area 3 met the standards for total xylenes. These results suggest that the *in-situ* anaerobic and aerobic bioremediation treatment programs facilitated the reduction of these COCs to levels below their respective standards. A few COCs (i.e., benzene and N,N-dimethylaniline) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards. Overall, benzene concentrations show a decreasing trend in Area 3 during the *in-situ* aerobic bioremediation treatment period.

- Since June 2006, average aniline concentrations detected in Area 3 (MW-8SR, MW-27, and MW-28) have fluctuated, but overall have declined by several orders of magnitude. During the past two sampling events (April and October 2012), aniline concentrations have not been detected in any of the monitoring well samples. Furthermore, aniline concentrations in Area 3 show a decreasing trend from June 2006 to October 2012, suggesting that the *in-situ* aerobic bioremediation treatment program facilitated the reduction of aniline in Area 3.

- Oxygen was introduced into all three areas via hydrogen peroxide injections in Area 1 and oxygen gas infusion in Areas 2 and 3. In all three areas, DO concentrations show an increasing trend during the *in-situ* bioremediation treatment program, except at monitoring wells TW-02RRR (Area 2) and MW-8SR (Area 3), which showed decreasing trends. Although DO concentrations did not exceed 2 ppm (an indicator of aerobic conditions) in any of the areas during the current reporting period (July through December 2012), individual COC concentrations in addition to total COC concentrations decreased between June 2006 and October 2012 (refer to Table 5), suggesting that oxygen was used for biodegradation processes, which likely occurred soon after oxygen was introduced to groundwater. The result is that there was little surplus of oxygen to increase the groundwater DO levels.

- The OU2 remedy continues to be protective of public health and the environment and complies with the OU2 ROD (NYSDEC 1997).

Attainment of RAOs and Recommendations

Attainment of OU2 RAOs

The ROD identifies that, upon attainment of the RAO for groundwater quality and discontinuation of system operations, a post-remedial monitoring program will be implemented. In accordance with NYSDEC's OU2 ROD and DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC 1997, 2010a), Section 6.4(a) identifies that "a remedial process is considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document." DER-10 Section 6.4(a)(2) provides guidance for determining the appropriateness of site closures prior to compliance with standards, criteria, and guidance (SCGs), which include NYSDEC Groundwater Quality Standards (NYSDEC 1998).

While each of the three treatment areas has some COCs detected at concentrations exceeding their respective standards, DER-10 Section 6.4 (a) guidance identifies that site closure may be initiated before the SCGs have been met when it can be demonstrated that:

1) the remedy has achieved the bulk of reduction of groundwater contamination;

2) the remedy has been properly implemented, optimized to its fullest extent, and could not be otherwise modified to improve the required performance; and

3) protection of public health and the environment is maintained.

Each OU2 RAO is defined below, along with sufficient evidence to conclude that the RAOs have been met and the remedy has achieved the bulk of reduction of groundwater contamination. Each RAO is evaluated against the COC groundwater data collected since the initiation of the OU2 *in-situ* bioremediation treatment program in July 1998. RAO evaluations include the following technical analyses:

- Change in annual total COC molar concentration over time

- Statistical analyses that included first order decay functions and regression analyses between time (year) and percent COC reduction, fitted to each Area's annual total COC molar concentration.

RAO 1 - Reduce, control, or eliminate the concentrations of COCs present within the saturated soils at the site

As described in the process control monitoring results, the COC concentrations within saturated soils have been reduced, controlled, or eliminated. This is further supported by an evaluation of total COC concentration change during the *in-situ* bioremediation treatment program. Specifically, the change in total COC molar concentration (i.e., concentration normalized by its molecular weight) over time was calculated and graphed using data obtained since commencement of the *in-situ* bioremediation treatment program, including the data collected in October 2012. To calculate the percent change in COC concentration for each Area, each COC concentration (except methanol) was converted into its molar concentration, and the molar concentrations were summed for each sampling date and then averaged for the year. Methanol, as detailed in Attachment C, was excluded from the analysis to accurately portray the temporal trends in COC groundwater concentrations at each Area.

As shown in Table 5, the percent change in total COC molar concentration (1998 to 2012) is 98.6 percent for Area 1, 99.6 percent for Area 2, and 99.9 percent for Area 3. Additionally, the total COC molar concentrations for each Area have changed by several orders of magnitude, and each Area has a remaining total molar concentration in the micro molar level. Both the percent of change over time and the remaining total COC molar concentration levels demonstrate that: 1) the treatment programs have removed the bulk of the total COC mass in saturated soil and groundwater and 2) all three Areas meet RAO 1.

RAO 2 - Attain the NYSDEC Class GA Groundwater Quality Standards, to the extent practicable, for the COCs present in onsite groundwater

While some COCs remain above their respective NYSDEC Groundwater Quality Standards, the OU2 treatment program has removed the mass of COCs to the extent practicable in each of the three Areas, as demonstrated by the rate at which total COC concentrations have declined over the past several years. Figures 7, 8, and 9 illustrate the change in total COC molar concentrations over time since implementing the treatment program at Areas 1, 2, and 3, respectively. As each graph shows, changes in total molar concentrations have varied little over the past several years.

To evaluate if total COC molar concentrations have reached an asymptote (where COC levels are no longer decreasing or increasing) essentially that of approaching of 100 percent removal, first order decay functions and regression analyses between time (year) and percent COC reduction were fitted to each area's annual total COC molar concentration. For the purposes of this analysis, if the slope of the total COC molar concentration did not significantly change (as indicated by the statistical significance of the computed slope and its 95 percent upper and lower confidence interval), then the data indicate that the asymptote was effectively reached. Detailed descriptions of the statistical analyses and discussion of the associated results are provided in Attachment C. The data and results of the analyses for each Area are summarized below and on Figures 7 through 9.

Area 1

- The overall percent reduction in total COC levels from 1998 to 2012 was 98.9 percent (Figure 7).
    - Thus, COC levels approached asymptotic conditions of 100 percent total COC removal over a 15-year period.
- The total COC molar concentration decreased relatively quickly and consistently from 2002 to 2012 at a statistically significant decay rate of 32 percent per year, and 95 percent confidence interval ranging from 21 to 42 percent per year (Figure C-1).
    - This indicates that COC levels exhibited exponential decay over a 10-year period, approaching asymptotic conditions by 2012.
- A regression between time (2008 to 2012) and percent total COC reduction shows a non-significant (i.e., p value of 0.49 > confidence level of 0.05) mean slope of

0.77 percent COC reduction per year, with a 95 percent confidence interval ranging from -2.4 to 3.9 percent per year (Figure 7).

- This suggests that COC molar concentrations did not significantly decrease or increase within the last 5 years, indicating that COC levels effectively reached an asymptote by 2012.

Area 2

- The overall percent reduction in total COC levels from 1998 to 2012 was 99.6 percent (Figure 8).
  - Thus, COC levels approached asymptotic conditions of 100 percent total COC removal over a 15-year period.
- Total COC molar concentrations decreased rapidly from 2002 to 2012 at a statistically significant decay rate of 44 percent per year, and 95 percent confidence interval ranging from 35 to 51 percent per year (Figure C-2).
  - This indicates that COC levels exhibited exponential decay over a 10-year period, approaching asymptotic conditions by 2012.
- A regression between time (2008 to 2012) and percent total COC reduction shows a continuing slightly positive statistically significant (i.e., p value of 0.049< confidence level of 0.05) mean slope of 0.64 percent COC reduction per year, with a 95 percent confidence interval ranging from 0.0022 to 1.3 percent per year (Figure 8).
  - Despite this minor increase in the percent reduction in total COC molar concentrations, Area 2 appears to be approaching asymptotic conditions, as noted by the lower end of the 95 percent confidence interval approaching 0 percent COC reduction per year, the rapid decay rate, and the high degree of total COC removal within the last 3 years (>98.9 percent).

In Area 2, aniline contributions dominate the total COC molar concentration. The concentrations of COCs other than aniline quickly achieved 99 percent reduction or more in the first few years, while aniline data actually increased, reaching a maximum in 2002. At this point, aniline accounted for approximately 99.7 percent of the total COC molar concentration. Since 2002, Area 2 appears to be approaching the practical asymptote of 100 percent reduction, as noted by the decay function of total COCs from 2002 to 2012 (Attachment C). After this 10-year period, only 0.17 percent of the total COC concentration remains.

Area 3

- The overall percent reduction in total COC levels from 1999 to 2012 was 99.9 percent (Figure 9).
    - o Thus, COC levels approached asymptotic conditions of 100 percent total COC removal over a 14-year period.
- Total COC molar concentrations decreased rapidly from 2002 to 2012, at a statistically significant decay rate of 61 percent per year, and 95 percent confidence interval ranging from 53 to 67 percent per year (Figure C-3).
    - o This indicates that COC levels exhibited exponential decay over a 10-year period, approaching asymptotic conditions by 2012.
- The regression between time (2008 to 2012) and percent COC reduction shows a continuing slightly positive statistically significant (i.e., p value of 0.042 < confidence level of 0.05) slope of 0.53 percent COC reduction per year, with the 95 percent confidence interval ranging from 0.039 to 1.0 percent per year (Figure 9).
    - o Despite this minor increase in the percent reduction in total COC molar concentration, Area 3 appears to be approaching asymptotic conditions as noted by the rapid decay rate and high degree of removal within the last 3 years (>99.9 percent).

Based on these assessments, all three Areas achieve RAO 2 by attaining "to the extent practicable" the NYSDEC Class GA Groundwater Quality Standards.

RAO 3 - Mitigate the potential for migration beyond the site boundary of groundwater that contains concentrations of COCs in excess of their respective NYSDEC Class GA Groundwater Quality Standard

As demonstrated by the results of the hydraulic and COC monitoring programs, this RAO continues to be achieved. Groundwater samples collected from the sentinel wells downgradient from Area 1 (MW-3S) and Area 2 (MW-4S) have not exceeded standards since June 2005 and January 1989, respectively. For the sentinel and perimeter monitoring locations downgradient of Area 3, COCs typically have not been detected since commencement of the *in-situ* bioremediation treatment program, and the infrequent detections have been confirmed to be less than NYSDEC Groundwater Quality Standards with follow-up groundwater sampling and analysis. These COC data, combined with the slow, average linear groundwater velocity of approximately 3 feet per year, effectively support that post-remedial monitoring following discontinuation of the closed loop hydraulic cell, with defined steps to take further action if needed, would continue to achieve this RAO.

In summary, the site closure criteria set forth in the OU2 ROD and DER-10 guidance have clearly been met because:

1) Each of the three RAOs established in the OU2 ROD have been attained.

2) The remedy has achieved the bulk of reduction of groundwater contamination, as indicated by total COC molar concentrations exceeding 98.5 percent reduction in each area.

3) The remedy has been properly implemented and optimized to its fullest extent, as demonstrated by the rapid decay rate of total COC concentrations and COC levels approaching asymptotic conditions by 2012.

4) Public health and the environment are protected.

As presented in the ROD and DER-10, discontinuation of groundwater treatment and hydraulic control and implementation of a post-remedial monitoring program are the next steps.

__Recommendations__

It is recommended that the site proceed to site closure. In order to achieve site closure, DER-10 Section 6.4(a) requires details of an approach and a basis for discontinuing groundwater treatment and hydraulic control activities. To satisfy the regulatory requirements, a proposal for site closure is outlined here and further detailed below.

- Temporarily discontinue treatment programs at Areas 1, 2, and 3.
- In Areas 1, 2, and 3:
    - Monitor for potential rebound in COC groundwater concentrations.

- Monitor to confirm that COCs are not detected in sentinel and downgradient perimeter monitoring well groundwater samples.

- If COC concentrations remain low and public health and the environment remain protected, document the remedial program is complete and proceed with site closure.

- If COC concentrations become elevated during treatment shutdown at Areas 1, 2, and 3, evaluate potential reactivation of the prior treatment programs for Areas 1, 2, and 3, operation of the closed loop hydraulic system, or other remedial measures will be evaluated.

- Complete Deed Restriction Process required for the site to "prevent future use of and potential human exposure to site groundwater".

Temporarily Discontinue the Groundwater Treatment Programs.

Discontinue operation of the closed loop hydraulic system, oxygen infusion system and peroxide amendments following the April 2013 monitoring event.

Implement Post-Remedial Process Control Monitoring and Evaluation.

Conduct Post-Remedial Process Control Monitoring Program quarterly through April 2014: conduct quarterly groundwater monitoring at the three areas and downgradient perimeter wells/piezometers to determine whether COC concentrations continue to decrease and/or remain below their respective NYSDEC Groundwater Quality Standards, and to ascertain whether COC concentrations in excess of their respective NYSDEC Groundwater Quality Standards are migrating beyond the site boundary. The quarterly sampling would occur in approximately July and October 2013, and January and April 2014.

During the 1-year monitoring period, the process for evaluating the post-shutdown period data will be consistent with the current Process Control Monitoring Program. As such, the existing NYSDEC-approved Site O&M Plan will be proposed for continued use. The quarterly Post-Remedial Process Control Monitoring Program will measure groundwater COC concentrations for acetone, BTEX, trichloroethene, aniline, N,N-dimethylaniline, and methylene chloride. Monitoring locations will include:

- Area 1 (TW-01, MW-9S, MW-31, MW-32, and MW 33)
- Area 2 (MW-34, MW-35, MW-36R, and TW-02RRR)
- Area 3 (MW-8SR, MW-27, MW-28, MW-29, and MW-30)
- Sentinel wells (MW-3S and 4S)
- Downgradient perimeter wells (MW-18, MW-23I, MW-23S, MW-255, MW-250, and MW-17R).

The post remedial monitoring activities will continue in accordance with the site-specific Health and Safety Plan (ARCADIS 2010b).

Following the post-remedial monitoring period, the data will be graphically presented to illustrate the effectiveness of the current treatment system in Areas 1, 2, and 3. In the event that COC concentrations rebound unacceptably after the treatment systems are turned off and/or COCs have migrated downgradient toward the site boundary (i.e., detected in sentinel or downgradient perimeter wells above NYSDEC Groundwater Quality Standards), a total COC concentration limit has been set. Once COCs exceed the limit, evaluate potential reactivation of the prior treatment programs for Areas 1, 2, and 3, operation of the closed loop hydraulic system or other remedial measures will be evaluated. COC limits were calculated using the average total COC concentration (observed during asymptotic conditions) plus two standard deviations (approximately 95 percent confidence interval for that period). For each Area, some annual data were excluded because it significantly deviated from the overall mean and would have increased both the mean and standard deviation, and as a result greatly increase the calculated concentration limit (Note: therefore, the calculated concentration limits are conservative). These COC limits are based on the assumptions that the samples are collected from the same wells in each area, and that calculations are made using the same constituents at the same detection limits as previously used in past analyses.

Area 1 – Concentration Limit = 50 micromoles per liter (μm/L)

This target concentration was calculated using total COC concentrations from 2007 to 2012 and rounding to 50 μm/L. The total COC concentration from 2009 was not included in this calculation. At this concentration, the overall percent reduction in COC levels from 1998 levels is 98.2 percent.

Area 2 – Concentration Limit = 950 µm/L

This target concentration was calculated using total COC concentrations from 2009 to 2012 and rounding to 950 µm/L. At this concentration, the overall percent reduction in COC levels from 1998 is 98.4 percent.

Area 3 – Concentration Limit = 650 µm/L

This target concentration was calculated using total COC concentrations from 2010 to 2012 and rounding to 650 µm/L. At this concentration, the overall percent reduction in COC levels from 1998 levels is 99.3 percent.

Complete the Deed Restriction Process:

The OU1 ROD (NYSDEC 1994) identifies that a deed restriction (institutional control) is required for the site to "prevent future use of and potential human exposure to site groundwater". A draft deed restriction (Declaration of Covenant and Restrictions) was provided from NYSDEC to McKesson in August 2011. Based on site conditions, the next PRR will present modifications to the deed restriction language for NYSDEC's consideration. Upon approval of the language, the site Respondents will complete the deed restriction process as outlined in Section V.2.a.b.7 of DEC-33 (Institutional Controls: A Guide to Drafting and Recording Institutional Controls) (NYSDEC 2010c). Reclassification of the site to Class 4 Inactive Hazardous Waste Disposal Site (i.e., site properly closed – requires continued management) is anticipated after establishment of the deed restriction. The site will be reclassified to Class 5 as part of the site closure process.

Site Closure:

If the post-shutdown groundwater data and concentrations are not observed to rebound substantially above the pre-shutdown concentrations, continue to trend at asymptotic levels, and COCs are not migrating beyond the site boundary above acceptable levels (as determined by sampling from the sentinel and downgradient perimeter monitoring wells), the remedial programs for Areas 1, 2, and 3 will be considered complete.

Demobilization and Closure:

Hydraulic System. When it is determined that the treatment system is no longer required for Area 3, the treatment system will be dismantled and removed from the site. A deconstruction work plan and design, including the proper abandonment of wells and piping, will be developed when appropriate.

Amend the Site Operation and Maintenance Plan. Upon completion of the groundwater treatment program at OU2, the existing O&M Plan (BBL 1999) will be amended to meet the requirements of a Site Management Plan in accordance with NYSDEC's DER-10 Section 6.1 (a) Guidance (NYSDEC 2010a). The amended O&M Plan will, at a minimum, include an Institutional and Engineering Control Plan, periodic certification of the institutional control and engineering controls certification, and site O&M Plan.

Remove Equipment from Site. Upon final closure of the site, existing structures (e.g., sheds) and equipment will be removed.

Reclassify the Site to Class 5. Reclassification of the site to Class 4 is anticipated after establishment of the deed restrictions. Class 4 is assigned to a site that has been properly closed but that requires continued site management (6NYCRR Part 375-2.7(b)(3)(iv)). Reclassification from Class 4 to Class 5 is anticipated after completion of the post-remedial monitoring program. Class 5 sites require no further action and have been properly closed in a setting where a consequential amount of hazardous waste or its constituents remain (6NYCRR Part 375-2.7(b)(3)(v) and http://www.dec.ny.gov/chemical/8663.html).

Summary

The *in-situ* aerobic bioremediation treatment system operated properly during the July through December 2012 reporting period, and the OU2 remedy continues to be protective of public health and the environment.

Results of the Hydraulic Process Control Monitoring Program indicate that groundwater in Area 3 continues to be contained in the Area 3 treatment system, and the hydraulic gradient of the deep hydrogeologic unit has not been significantly impacted by groundwater withdrawal in Area 3.

Results of the COC Process Control and Biannual Groundwater Monitoring Program from the October 2012 sampling event indicate that COC concentrations within saturated soils have been reduced, controlled, or eliminated within Areas 1, 2, and 3. COC concentrations were mostly non-detect or below their respective NYSDEC Class GA Groundwater Quality Standards in each area. A few COCs (i.e., N,N-dimethylaniline, aniline, benzene, total xylenes, and acetone) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards, although only in specific wells.

The *in-situ* aerobic bioremediation treatment program activities and process control monitoring will continue over the next reporting period (January through June 2013).

Based on the results from the current (July through December 2012) reporting period, in conjunction with monitoring data collected since July 1998, ARCADIS proposes a basis and strategy for site closure, in accordance with NYSDEC's OU2 ROD and DER-10 Section 6.4(a). The site closure criteria set forth in these documents have clearly been met because:

1) Each of the three RAOs established in the OU2 ROD has been attained.

2) The remedy has achieved the bulk of reduction of groundwater contamination, as indicated by total COC molar concentrations exceeding 98.5 percent reduction in each area.

3) The remedy has been properly implemented and optimized to its fullest extent, as demonstrated by the rapid decay rate of total COC concentrations and COC levels approaching asymptotic conditions by 2012.

4) The remedy remains protective of public health and the environment.

The proposed strategy for site closure includes temporarily discontinuing the groundwater treatment program for 1 year, in conjunction with post-remedial process control monitoring, to ensure that no substantial rebound of COC concentrations would occur in the future. If COC concentrations rebound after the temporary treatment system shutdown, total COC concentrations will be evaluated against an established total COC concentration limit to determine if groundwater treatment should be resumed.

If the post-shutdown groundwater concentrations are not observed to rebound above the pre-shutdown concentrations or total COC concentration limit and continue to trend at asymptotic levels, and if COCs are not migrating beyond the site boundary at unacceptable levels, the remedial programs for Areas 1, 2, and 3 will be considered complete. The treatment systems will be permanently shut down, and a deconstruction work plan and design will be developed. Upon completion of the post-remedial monitoring program, the Site O&M Plan will be amended, and the site will be reclassified to Class 5.

If you have any questions or require additional information, please contact me at 315.671.9210.

Sincerely,

ARCADIS of New York, Inc.

David Ulm

David J. Ulm
Senior Vice President

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Enclosures:

Tables

Figures

Attachments

Attachment A

Table 2	Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
Figures 1 – 7	Groundwater Monitoring Data Summaries
Attachment B	Validated Analytical Laboratory Report
Attachment C	Statistical Analyses
Figure C-1	Area 1 Decay Function of Total COCs During In-Situ Bioremediation Treatment Program
Figure C-2	Area 2 Decay Function of Total COCs During In-Situ Bioremediation Treatment Program
Figure C-3	Area 3 Decay Function of Total COCs During In-Situ Bioremediation Treatment Program

Copies:

Ms. Susan Edwards, NYSDEC (w/out Attachment B)
Mr. Harry Warner, NYSDEC (w/out Attachment B)
Mr. Richard Jones, NYSDOH (w/out Attachment B)
Ms. Jean Mescher, McKesson Corporation (w/out Attachment B)
Mr. Douglas Morrison, Bristol-Myers Squibb Company (w/out Attachment B)
Mr. Christopher Young, P.G., de maximis, inc. (w/out Attachment B)

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Tables

Table 1. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Location	Annual Sampling Schedule		
	Shallow/Deep Well[2]	First Sampling Event	Second Sampling Event
Sentinel Wells			
MW-3S[1]	--	C	C
MW-4S[1]	--	C[3]	NM
Area 1			
TW-01	--	C	C
MW-9S	--	C	C
MW-31	--	C	C
MW-32	--	C	C
MW-33[1]	--	C	C
PZ-F	Shallow	H	H
PZ-G	Shallow	H	H
PZ-HR	Shallow	H	H
PZ-P	Shallow	H	H
PZ-Q	Shallow	H	H
PZ-R	Shallow	H	H
PZ-S	Shallow	H	H
Area 2			
TW-02RRR	--	C	C
MW-34	--	C	C
MW-35	--	C	C
MW-36R[1]	--	C	C
PZ-I	Shallow	H	H
PZ-J	Shallow	H	H
PZ-T	Shallow	H	H
PZ-U	Shallow	H	H
PZ-V	Shallow	H	H
Area 3			
MW-8SR[1]	--	C	C
MW-11S	Shallow	H	H
MW-27[1]	--	C	C
MW-28	--	C	C
MW-29[1]	--	C	C
MW-30[1]	--	C	C
PZ-A	Shallow	H	H
PZ-B	Shallow	H	H
PZ-C	Shallow	H	H
PZ-D	Shallow	H	H
PZ-E	Shallow	H	H
PZ-K	Shallow	H	H
PZ-L	Shallow	H	H
PZ-M	Shallow	H	H
PZ-N	Shallow	H	H
PZ-O	Shallow	H	H
Collection Sump	Shallow	H	H
Downgradient Perimeter Monitoring Locations			
MW-17R	--	C	C
MW-18	Deep	C	C
MW-23I	Deep	C	C
MW-23S	Shallow	C, H	C, H
PZ-4S[1]	--	C	NM
PZ-4D[1]	Shallow	C, H	H
Barge Canal	--	H	H

See notes on page 2.

Table 1. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Notes:

[1] Methanol not analyzed for in constituent of concern (COC) monitoring.
[2] As per potentiometric surface mapping.
[3] MW-4S is included in the sampling program every third biannual sampling event. The next samples will be collected during the second sampling event of 2013 (if applicable).

1. The hydraulic monitoring identified in this table will be conducted semiannually. The hydraulic monitoring also includes measuring the conductivity of groundwater recovered from Area 3 from a sampling port located before the equalization tank.
2. Field groundwater parameters including pH, temperature, conductivity, dissolved oxygen, and oxidation reduction potential are measured during each COC sampling event.
3. Each of the monitoring wells and piezometers used for hydraulic and COC monitoring during the semiannual monitoring event are checked for the presence (if any) of nonaqueous phase liquid.
4. Based on the results obtained, the scope and/or frequency for the hydraulic and/or COC components of the long-term process control monitoring program, as detailed herein, may be modified. Any modifications will be made in consultation with the New York State Department of Environmental Conservation (NYSDEC).
5. This table is based on the NYSDEC-approved Operation and Maintenance Plan (Blasland, Bouck & Lee 1999), including the NYSDEC-approved December 29, 1999 addendum with the modifications detailed in the October 2004 Biannual Process Control Monitoring Report and September 3, 2010 modification proposal letter to the NYSDEC.

H = Hydraulic monitoring (groundwater level measurements).
C = Monitoring for COCs.
NM = Not monitored.
-- = Not used for potentiometric surface mapping.

Table 2. Summary of Groundwater Level Measurements, Aerobic Bioremediation Treatment Program, October 2006 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	10/30/06	6/6/07	11/12/07	3/24/08	8/25/08	3/23/09	9/14/09	4/26/10	10/11/10	4/4/11	10/24/11	4/9/2012	10/1/2012
Canal	393.39	364.29	362.99	362.06	364.34	363.21	363.54	362.89	362.97	363.49	362.07	363.71	358.39	360.59
Collection Sump	372.81	363.18	362.26	361.86	363.81	362.14	362.20	362.18	362.18	360.72	359.90	361.33	360.95	361.70
MW-3S[1]	376.54	369.08	--	367.60	367.93	365.19	367.32	365.50	365.67	367.95	369.21	--	366.44	365.15
MW-11S	373.50	366.11	364.27	363.88	365.69	363.86	364.88	363.89	364.42	364.30	365.00	364.18	363.92	363.62
MW-18[1]	372.57	363.82	362.63	362.32	363.51	362.26	363.16	362.22	362.67	362.87	363.82	--	362.57	362.32
MW-23I[1]	372.77	366.43	365.02	364.74	366.12	364.64	365.69	364.67	365.19	365.38	366.57	--	364.99	364.73
MW-23S	372.61	365.28	362.98	362.56	364.81	362.62	363.50	362.63	362.99	362.71	364.57	362.66	362.23	362.29
MW-24SR	375.55	366.49	365.21	364.83	366.26	364.73	365.81	364.79	365.32	365.81	366.60	365.63	365.09	364.84
MW-25S	373.39	365.26	363.32	362.87	364.84	362.88	363.97	362.89	363.34	363.30	364.10	363.17	362.81	362.61
PZ-4D	376.11	366.64	365.29	364.98	366.39	364.90	365.96	364.94	365.49	366.02	366.74	365.78	365.24	364.94
PZ-5D	375.58	366.87	365.49	365.19	366.69	365.09	366.21	365.14	365.01	366.09	366.99	366.02	365.48	365.16
PZ-A	373.94	365.62	363.11	362.72	364.83	362.96	363.56	362.95	362.28	362.35	362.68	362.53	363.24	362.54
PZ-B	373.92	365.85	363.12	362.62	365.03	362.87	363.64	362.83	362.96	362.22	363.24	362.47	362.14	362.35
PZ-C	374.85	367.14	365.85	365.30	367.15	365.16	366.71	365.23	366.37	367.11	367.88	366.6	366.10	365.41
PZ-D	375.12	367.68	365.98	365.40	367.29	365.28	366.81	365.40	366.57	367.17	368.20	366.87	366.39	365.65
PZ-E	374.12	368.13	365.16	364.07	366.58	364.14	366.82	364.20	364.25	364.16	364.83	364.18	363.67	363.35
PZ-F	377.06	368.32	366.18	365.76	367.99	365.50	367.41	365.69	366.72	367.10	368.10[3]	367.04	366.46	365.44
PZ-G	377.16	368.64	366.28	365.82	368.14	365.94	367.29	367.22	367.32	367.36	368.12	367.17	366.53	365.48
PZ-HR	376.99	368.31	366.23	365.74	368.00	365.48	367.41	365.63	366.65	367.15	368.00[3]	367.04	366.40	365.38
PZ-I	375.15	369.00	366.49	365.92	368.55	365.50	367.97	365.71	367.04	367.49	368.60	367.47	366.77	365.36
PZ-J	374.89	367.96	366.16	365.82	367.69	365.55	367.20	365.70	366.55	367.05	367.81	366.94	366.30	365.55
PZ-K	373.19	365.58	363.36	362.91	364.96	363.08	363.80	363.04	363.33	363.34	361.94	362.97	362.65	362.75
PZ-L	374.62	365.23	362.94	362.63	364.64	362.79	363.39	362.80	363.80	362.36	362.52	362.54	362.16	362.42
PZ-M	374.35	365.60	363.54	363.11	365.13	363.30	364.00	363.31	363.62	363.04	363.47	363.22	362.86	362.87
PZ-N	376.94[2]	367.51	365.76	365.26	367.05	365.09	366.63	365.17	366.22	367.01	367.79	366.62	366.06	365.33
PZ-O	375.36	365.42	363.22	362.82	365.01	362.91	363.94	362.93	363.35	362.90	363.57	362.94	362.61	362.52
PZ-P	376.89	368.30	366.31	365.83	368.06	365.58	367.51	365.75	366.76	367.26	368.08	367.15	366.49	365.45
PZ-Q	377.61	368.61	366.33	365.83	368.23	365.57	367.61	365.77	366.78	367.26	368.13	367.21	366.52	365.44
PZ-R	377.05	368.51	366.19	365.79	368.20	365.55	367.57	365.73	366.74	367.24	368.10	367.15	366.48	365.45
PZ-S	378.13	372.48	366.51	365.81	368.21	365.55	367.60	365.74	366.76	367.13	369.67[3]	367.48	366.51	365.45
PZ-T	376.25	368.04	366.24	365.84	367.89	365.52	367.37	365.66	366.63	367.12	367.94	367.00	366.32	365.41
PZ-U	375.35	367.99	366.07	365.80	367.75	365.52	367.25	365.66	366.52	367.05	367.83	366.92	366.29	365.44
PZ-V	375.78	367.97	366.17	365.78	367.78	365.48	367.24	365.64	366.52	367.04	367.81	366.93	366.28	365.40

Notes:

[1]Well not used in potentiometric surface of the shallow hydrogeologic unit sand layer.

[2]The reference elevation for PZ-N was 376.02 feet AMSL prior to November 16, 2000. The new reference elevation is 376.94 feet AMSL

Abbreviations:

AMSL = above mean sea level (National Geodetic Vertical Datum of 1929).

-- = Not Measured

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-3S	3/09	365.1	350.1	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	0.17 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	0.35 J	<1.0	<3.0	<5.0	<1.0	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	10/12			<10	0.27 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.61 J	NA
MW-4S	10/10	365.5	350.5	<10 [<10]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	<5.0 [<5.0]	<1.0 [<1.0]	<500 J [<500 J]
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
MW-8SR[B]	3/09	362.7	352.7	6.5 J [5.8 J]	6.8 [6.8]	66 [63]	<1.0 [<1.0]	10 [10]	<1.0 [<1.0]	140 [140]	2,200 [1,800]	<12 [<12]	<500 [<500]
	6/09			NA	NA	NA	NA	NA	NA	NA	7,000	<50	NA
	9/09			<10 [8.3 J]	8.5 J [7.9]	44 J [38]	<1.0 [<1.0]	6.8 J [6.5]	<1.0 J [<1.0]	81 J [71]	4,000 [3,400]	<20 [<20]	<500 [<500]
	4/10			<10 [<10]	4.2 [3.5]	23 J [18]	<1.0 [<1.0]	4.6 [3.7]	<1.0 [<1.0]	41 [33]	370 J [720 J]	1.0 J [<5.0]	<500 [<500]
	10/10			<10	2.7	16	<1.0	2.0	<1.0	31	220	1.6	NA
	4/11			5.9 J [4.3 J]	3.2 [3.2]	10 [8.8]	<1.0 [<1.0]	2.8 [2.6]	<1.0 [<1.0]	32 [31]	57 J [64]	1.5 [1.6]	NA
	10/11			<10 [<10]	1.9 [2.0]	2.0 [2.1]	<1.0 [<1.0]	1.3 [1.3]	<1.0 [<1.0]	14 [15]	<5.0 [<5.0]	2.6 [<1.0]	NA
	4/12			8.7 J [6.7 J]	1.2 [1.7]	2.3 [3.3]	<0.18 [<0.18]	0.76 J [1.2]	<0.090 [<0.090]	9.5 [15]	<1.9 [<1.9]	2.4 [2.6]	NA
	10/12			<10 [<10]	0.69 J [0.70]	0.16 J [0.14 J]	<1.0 [<1.0]	0.36 J [0.39 J]	<1.0 [<1.0]	1.4 J [1.2 J]	<5.3 [<5.0]	2.3 [2.7]	NA
MW-9[C]	3/09	365.6	356	<10	1.2	27	<1.0	2.5	<1.0	65	<5.0	4.2	<500
(Replaced by MW-9S)	9/09			<10	1.7	20	<1.0	2.2	<1.0	70	<5.0	4.1	730
	4/10			<10	0.86 J	26	<1.0	2.1	<1.0	69	<5.0	6.5	<500
	10/10			<10	1.3	11	<1.0	1.9	<1.0	45	<5.1	7.5	<500 J
	4/11			<10	0.91 J	29	<1.0	2.6	<1.0	89	<5.3	5.4	<500
	10/11			<10	1.2	4.2	<1.0	1.8	<1.0	41 J	<5.0	7.6	<500
	4/12			7.5 J	1.1	18	<0.18	1.5	<0.090	67	<1.9	6.3	<500
	10/12			<10	1.9 J	4.7	<1.0	3.2	<1.0	84	<5.0	3.9	NA

See notes on Page 7.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-17[D]	3/09	365.7	356.1	<10	2.3	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
(Replaced by MW-17R)	9/09			<10 J	**0.86 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	**0.22 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	1.3	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	<500 J
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.19 J**	<1.0	<3.0 J	<5.0	<1.0	<500
	4/12			<2.7	**0.22 J**	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	**0.55 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
MW-18	3/09	325.15	316.15	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	33	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<500 J
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.23 J**	<1.0	<3.0 J	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	**0.27 J**	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA

See notes on Page 7.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-23S	3/09	364.1	354.1	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			**3.7 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.31 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
MW-23I	3/09	341.2	336.2	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	8.4	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.29 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	NA
MW-27	3/09	362.5	354.5	**14 J**	8.7	36	<1.0	9.4	<1.0	88	8,200 J	<50 J	<500
	6/09			NA	NA	NA	NA	NA	NA	NA	7,400	<50	NA
	9/09			**10**	6.2	5.9	<1.0	6.9	<1.0	23	2,100	<10	<500
	4/10			<10	4.5	6.1	<1.0	**2.4**	<1.0	10	1,300	<10	<500
	10/10			<10	2.7	**1.4**	<1.0	**1.3**	<1.0	**3.4**	220	2.5	NA
	4/11			**3.9 J**	3.1	5.1	<1.0	5.7	<1.0	9.1	1,000	<11	NA
	10/11			<10	2.1	**2.2**	<1.0	**1.3**	<1.0	**3.1**	36	2.7	NA
	4/12			<2.7	1.5	**1.4**	<0.18	**0.45 J**	<0.090	**2.2 J**	<1.9	2.7	NA
	10/12			<10	1.1	<1.0	<1.0	**0.22 J**	<1.0	<3.0	<5.0	2.2	NA
MW-28	3/09	363.6	355.6	<10	3.5	**0.8 J**	<1.0	**0.3 J**	<1.0	**1.1 J**	18	<0.5	**851**
	9/09			<10	3.1	**0.32 J**	<1.0	**0.25 J**	<1.0	**0.48 J**	6.7	<1.0	<500
	4/10			<10	2.8	**0.60 J**	<1.0	**0.23 J**	<1.0	**0.46 J**	<5.0	**0.49 J**	<500
	10/10			<10	1.8	<1.0	<1.0	<1.0	<1.0	<3.0	**2.4 J**	**0.60 J**	<500 J
	4/11			**4.3 J**	2.3	<1.0	<1.0 B	**0.11 J**	<1.0	<3.0	**3.9 J**	**0.75 J**	<500
	10/11			<10	1.8	<1.0	<1.0	**0.38 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	1.4	<0.10	<0.18	**0.22 J**	<0.090	<0.36	<1.8	**0.48 J**	<500
	10/12			<10	1.9	<1.0	<1.0	**0.16 J**	<1.0	<3.0	<5.0	**0.62 J**	NA

See notes on Page 7.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-29	3/09	362.9	345.9	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<3.0	<5.0	**0.29 J**	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	**0.22 J**	<1.0	<3.0 J	<5.0	**0.22 J**	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
MW-30	3/09	363.5	355.5	<10	**0.8 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	**0.78 J**	<1.0	<1.0	**0.17 J**	<1.0	<3.0	21	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10 J	**0.14 J**	<1.0	37	<1.0	<1.0	<3.0	<5.1	<1.0	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	**0.18 J**	<1.0	<3.0 J	<5.0	<1.0	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	10/12			<10	**0.099 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
MW-31	3/09	363.7	355.4	**9.4 J**	8.3	<1.0	<1.0	**0.6 J**	<1.0	**0.8 J**	<5.0	2.3	<500
	9/09			<10	10	<1.0	<1.0	**0.49 J**	<1.0	**2.0 J**	<5.0	2.5	**730**
	4/10			<10	4.8	<1.0	<1.0	**0.40 J**	<1.0	**1.3 J**	<5.0	2.3	<500
	10/10			<10	6.9	<1.0	<1.0	**0.50 J**	<1.0	**1.5 J**	<5.3	3.5	<500 J
	4/11			<10	8.3	<1.0	<1.0	**0.77 J**	<1.0	**2.5 J**	<5.3	2.3	<500
	10/11			<10	5.7	<1.0	<1.0	**0.62 J**	<1.0	**1.5 J**	<5.0	3.5	<500
	4/12			**6.5 J**	6.8	**0.16 J**	<0.18	**0.65 J**	<0.090	**2.7 J**	<1.9	2.1	<500
	10/12			<10	6.3 J	**0.16 J**	<1.0	**0.44 J**	<1.0	**2.3 J**	<5.0	**0.90 J**	NA
MW-32	3/09	364	356	<10	**0.5 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	1.1	**1,200**
	4/10			<10	**0.23 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**0.89 J**	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	**0.87 J**	<500 J
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.19 J**	<1.0	<3.0 J	<5.0	1.5	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	1.1	<500
	10/12			<10	<1.0 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	2.2	NA
MW-33	3/09	344.1	356.1	<10	3.2	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	2.4	<500
	9/09			<10	2.6	<1.0	<1.0	**0.20 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	1.6	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	2.0	<500
	10/10			<10	1.7	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	2.7	NA
	4/11			<10	**0.79 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	1.9	NA
	10/11			<10	**0.58 J**	<1.0	<1.0	**0.12 J**	<1.0	<3.0	<5.3	1.9	NA
	4/12			<2.7	**0.11 J**	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	1.3	NA
	10/12			<10	**0.33 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	2.1	NA

See notes on Page 7.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-34	3/09	362.7	354.7	14	1.4	<1.0	<1.0	**0.7 J**	<1.0	**1.5 J**	12	2.0	<500
	9/09			**24**	<1.0	<1.0	<1.0	**0.64 J**	<1.0	**1.7 J**	<5.0	2.5	**1,000**
	4/10			**50 J**	**0.82 J**	<1.0	<1.0	**0.42 J**	<1.0	**1.4 J**	<5.0	2.4	<500
	10/10			**20**	**1.0**	<1.0	<1.0	**0.44 J**	<1.0	**1.3 J**	**1.8 J**	2.9	<500 J
	4/11			**16**	1.7	<1.0	<1.0	**0.74 J**	<1.0	**2.0 J**	10	2.7	<500
	10/11			350	1.2	<1.0	<1.0	**0.71 J**	<1.0	**0.90 J**	<5.6	2.5	<500
	4/12			37 J	1.3	<0.10	<0.18	**0.59 J**	<0.090	**1.4 J**	2.1 J	2.4	<500
	10/12			61	1.6	<1.0	<1.0	**0.78 J**	<1.0	**2.2 J**	<5.2	2.7	NA
MW-35	3/09	363	355	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			**6.5 J**	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<3.0	<5.0	<1.0	**1,100**
	4/10			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<500
	4/12			**14 J**	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<36 B	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	NA
MW-36[E] (Replaced by MW-36R)	3/09	363.6	355.6	**28**	2.4	<1.0	<1.0	**0.8 J**	<1.0	**2.8 J**	150	2.8	<500
	6/09			NA	NA	NA	NA	NA	NA	NA	460	<5.0	NA
	9/09			**21**	3.1	<1.0	<1.0	**0.96 J**	<1.0	**3.2**	390	3.1	<500
	4/10			<10 J	3.3	**0.26 J**	<1.0	**1.1**	<1.0	5.4	77	2.6	<500
	10/10			**12**	3.9	**0.28 J**	<1.0	**1.2**	<1.0	**4.8**	620	<5.0	<500 J
	4/11			<10	4.3	<1.0	<1.0	**0.95 J**	<1.0	**4.4**	310	4.0	NA
	10/11			<10	1.8	<1.0	<1.0	**0.66 J**	<1.0	**1.4 J**	92	3.6	NA
	12/11			NA	NA	NA	NA	NA	NA	NA	120	NA	NA
	4/12			**6.3 J**	1.6	**0.16 J**	<0.18	**0.45 J**	<0.090	**1.9 J**	150	4.1	NA
	10/12			<10	1.5 J	<1.0	<1.0	**0.54 J**	<1.0	**2.2 J**	10	3.1	NA
TW-01	3/09	365.1	355.4	<10	1.9	<1.0	<1.0	<1.0	<1.0	**0.6 J**	<5.0	<0.5	**22,300**
	9/09			**2.9 J**	<1.0	<1.0	<1.0	**0.11 J**	<1.0	<3.0	<5.0	1.1	**970**
	4/10			<10	**0.32 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**1.0**	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	1.3	<500 J
	4/11			<10	**0.21 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0 J	<5.6	1.6	<500
	4/12			<2.7	**0.11 J**	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	1.7	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	1.9	NA

See notes on Page 7.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through October 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Screen Elev. (feet AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
TW-02RR[BE]	3/09	363.3	353.3	<10 [<10]	5.0 [4.6]	1.5 [1.6]	<1.0 [<1.0]	1.0 [1.0 J]	<1.0 [<1.0]	4.2 [4.1]	2,000 [1,600]	<10 [<10]	<500 [<500]
(Replaced by TW-02RRR)	6/09			NA	NA	NA	NA	NA	NA	NA	2,800	<20	NA
	9/09			<10 [<10]	4.3 [4.2]	1.2 [1.3]	<1.0 [<1.0]	0.79 J [0.81 J]	<1.0 [<1.0]	3.5 [3.6]	1,600 [1,500]	<10 [<10]	1,000 [1,200]
	4/10			9.5 J [12 J]	4.1 [4.0]	1.2 [1.2]	<1.0 [<1.0]	0.78 J [0.75 J]	<1.0 [<1.0]	4.2 [4.0]	2,800 J [3,100 J]	<20 J [<20 J]	<500 [<500]
	10/10			<10 [<10]	3.3 [3.0]	1.0 [0.91 J]	<1.0 [<1.0]	0.82 J [0.76 J]	<1.0 [<1.0]	3.6 [3.6]	760 [810]	<5.0 [2.2 J]	<500 J [<500 J]
	4/11			<10 [<10]	2.1 [2.0]	1.2 [1.3]	<1.0 [<1.0]	0.74 J [0.75 J]	<1.0 [<1.0]	5.2 [5.3]	1.9 J [2.1 J]	3.4 [3.3]	<500 [<500]
	10/11			<10 [<10]	1.2 [1.1]	0.67 J [0.69 J]	<1.0 [<1.0]	0.53 J [0.48 J]	<1.0 [<1.0]	1.5 J [1.4 J]	1,300 D [1,500 D]	5.5 [6.2]	<500 [<500]
	12/11			NA	NA	NA	NA	NA	NA	NA	1,400	NA	NA
	4/12			15 J [13 J]	1.6 [1.5]	0.73 J [0.76 J]	<0.18 [<0.18]	0.51 J [0.48 J]	<0.090 [<0.090]	1.6 J [1.6 J]	1,400 J [1,600 J]	<2.2 J [<2.2 J]	<500 [<500]
	10/12			<10 [<10]	1.1 J [0.98 J]	0.29 J [0.27 J]	<1.0 [<1.0]	0.26 J [0.27 J]	<1.0 [<1.0]	0.91 J [0.89 J]	<5.2 [3.2 J]	2.2 [1.9]	NA
PZ-4D	3/09	350.8	345.9	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	5.3 J	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/12			<2.7	<0.080	<0.10	<0.18	0.23 J	<0.090	<0.36	<1.8	<0.21	NA
PZ-4S	3/09	362.79	357.88	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	17	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA

See notes on Page 7.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

General Notes:

1. Concentrations are presented in micrograms per liter, which is equivalent to parts per billion.
2. Compounds detected are indicated by bold-faced type.
3. Detections exceeding New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards (TOGS 1.1.1; NYSDEC 1998) are indicated by shading.
4. Duplicate sample results are presented in brackets (e.g., [14]).
5. The sampling event in June 2010 was an interim sampling event to check for the presence of methylene chloride.

Superscript Notes:

[A] = Data presented is total xylenes (m- and p-xylenes and o-xylenes).
[B] = Wells MW-8S and TW-02R were abandoned in August 2004 and replacement wells MW-8SR and TW-02RR were installed in August 2004.
[C] = Well MW-9 was abandoned during OU1 soil remediation activities (1994).
[D] = Well/piezometer MW-17 was abandoned November 1997 through January 1998.
[E] = Wells/piezometers MW-36, PZ-5S, PZ-W, and TW-02RR were abandoned in November 2010. Replacement wells TW-02RRR (replaced TW-02RR) and MW-36R (replaced MW-36 and PZ-W) were installed in November 2010.

Abbreviations:

AMSL = above mean sea level (National Geodetic Vertical Datum of 1929).
NA = compound was not analyzed for in the sample
NS = standard not available
TOGS = Technical and Operational Guidance Series

Analytical Qualifiers:

B = The compound was found in associated method blank.
J = The compound was positively identified; however, the numerical value is an estimated concentration only.
< = Compound was not detected at the listed quantitation limit.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36R (Area 2)	TW-02RRR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
8/21/06	N/R	N/R	N/R	N/R	3.35	N/R
8/28/06	0.28	N/R	N/R	0.88	2.18	N/R
9/1/06	0.53	N/R	N/R	0.41	0.40	N/R
9/8/06	0.22	N/R	N/R	0.42	0.53	N/R
9/21/06	0.17	N/R	N/R	0.21	0.37	N/R
9/29/06	0.28	N/R	N/R	0.37	0.40	N/R
10/6/06	0.16	N/R	N/R	0.43	0.29	N/R
10/13/06	0.21	N/R	N/R	0.33	0.31	N/R
10/28/06	0.17	N/R	N/R	0.24	0.29	N/R
11/10/06	0.37	N/R	N/R	0.33	0.38	N/R
11/16/06	0.27	N/R	N/R	0.23	0.21	N/R
11/22/06	0.41	N/R	N/R	0.37	0.42	N/R
12/4/06	0.29	N/R	N/R	0.23	0.32	N/R
12/7/06	0.24	N/R	N/R	0.22	0.29	N/R
12/14/06	0.57	N/R	N/R	0.27	0.32	N/R
1/7/07	0.30	N/R	N/R	0.27	0.21	N/R
1/12/07	0.24	N/R	N/R	0.27	0.30	N/R
1/19/07	0.23	N/R	N/R	0.20	0.37	N/R
1/26/07	0.26	N/R	N/R	0.61	0.57	N/R
2/9/07	0.24	N/R	N/R	0.28	0.44	N/R
2/22/07	0.33	N/R	N/R	0.44	0.30	N/R
3/2/07	0.62	N/R	N/R	0.20	0.36	N/R
3/16/07	0.29	N/R	N/R	0.37	0.55	N/R
3/23/07	0.25	N/R	N/R	0.22	0.46	N/R
3/30/07	0.47	N/R	N/R	0.45	0.79	N/R
4/5/07	0.31	N/R	N/R	0.59	0.91	N/R
4/19/07	0.32	N/R	N/R	0.27	0.73	N/R
4/26/07	0.26	N/R	N/R	0.49	0.48	N/R
5/11/07	0.50	N/R	N/R	0.43	0.58	N/R
5/25/07	0.22	N/R	N/R	0.53	0.81	N/R
6/1/07	0.30	N/R	N/R	0.32	0.70	N/R
6/29/07	0.48	0.90	N/R	1.87	2.76	N/R
7/3/07	0.21	0.48	N/R	0.43	0.66	N/R
7/13/07	0.38	0.38	N/R	0.68	1.18	N/R
7/19/07	0.36	0.22	N/R	0.52	0.98	N/R
7/27/07	0.24	0.32	N/R	0.50	0.86	N/R
8/3/07	0.47	0.47	N/R	0.57	0.79	N/R
8/9/07	0.63	0.31	N/R	0.42	0.70	N/R
8/16/07	0.37	0.31	N/R	0.40	0.85	N/R
8/24/07	0.38	0.33	N/R	0.50	0.88	N/R
8/31/07	0.54	0.40	N/R	0.52	0.77	N/R
9/7/07	0.47	0.40	N/R	0.35	0.52	N/R
9/14/07	0.40	0.38	N/R	0.39	0.83	N/R
9/21/07	0.36	0.31	N/R	0.34	0.46	N/R
9/28/07	0.28	0.43	N/R	0.57	0.71	N/R
10/5/07	0.38	0.41	N/R	0.41	0.68	N/R
10/12/07	0.41	0.44	N/R	0.65	1.03	N/R
10/19/07	0.44	0.52	N/R	0.59	1.02	N/R
10/26/07	0.32	0.50	N/R	0.71	1.04	N/R
11/2/07	0.38	0.48	N/R	0.44	0.90	N/R
11/9/07	0.43	0.43	N/R	0.68	1.04	N/R
11/16/07	0.50	0.64	N/R	0.33	0.38	N/R
11/21/07	0.56	0.32	N/R	0.44	1.24	N/R
11/30/07	0.42	0.51	N/R	0.84	1.28	N/R
12/7/07	0.44	0.41	N/R	0.54	0.66	N/R
12/14/07	0.49	0.55	N/R	0.55	1.02	N/R
12/20/07	0.45	0.44	N/R	0.89	0.90	N/R
12/28/07	0.42	0.46	N/R	0.56	1.10	N/R
1/4/2008	0.46	0.39	N/R	0.77	0.89	N/R
1/11/2008	0.48	0.36	N/R	0.64	0.91	N/R
1/18/2008	0.45	0.44	N/R	0.74	1.02	N/R
1/25/2008	0.42	0.33	N/R	0.96	0.92	N/R
2/1/2008	0.43	0.38	N/R	0.89	1.00	N/R

See notes on page 3.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36R (Area 2)	TW-02RRR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
2/8/2008	0.42	0.61	N/R	0.63	0.77	N/R
2/15/2008	0.46	0.54	N/R	0.86	0.99	N/R
2/22/2008	0.53	0.51	N/R	0.84	0.71	N/R
2/29/2008	0.44	0.45	N/R	0.73	0.92	N/R
3/7/2008	0.61	0.45	N/R	0.74	1.01	N/R
3/14/2008	0.65	0.34	N/R	0.77	0.82	N/R
3/21/2008	0.65	0.46	N/R	0.63	0.81	N/R
3/28/2008	0.62	0.33	N/R	0.71	0.87	N/R
4/4/2008	0.66	0.44	N/R	0.68	0.98	N/R
4/9/2008	0.77	0.35	N/R	0.54	0.79	N/R
4/20/2008	0.68	0.44	N/R	0.64	0.77	N/R
4/25/2008	0.48	0.61	N/R	0.43	0.76	N/R
5/2/2008	0.44	0.48	N/R	0.66	0.79	N/R
5/9/2008	0.46	0.41	N/R	0.67	0.81	N/R
5/16/2008	0.49	0.44	N/R	0.79	0.97	N/R
5/22/2008	0.38	0.40	N/R	0.43	0.59	N/R
5/30/2008	0.44	0.34	N/R	0.72	0.55	N/R
6/6/2008	0.31	0.33	N/R	0.40	0.67	N/R
6/13/2008	0.38	0.37	N/R	0.48	0.58	N/R
6/20/2008	0.41	0.70	N/R	0.40	0.58	N/R
6/27/2008	0.68	0.90	N/R	0.69	1.02	N/R
7/2/2008	0.97	0.88	N/R	1.03	1.18	N/R
7/10/2008	1.07	0.86	N/R	1.24	1.40	N/R
7/18/2008	2.06	1.89	N/R	2.03	2.31	N/R
7/23/2008	1.94	1.75	N/R	1.98	2.42	N/R
8/1/2008	1.29	1.12	N/R	1.27	1.48	N/R
8/8/2008	1.21	1.38	N/R	1.43	1.71	N/R
8/15/2008	1.29	1.53	N/R	1.68	1.94	N/R
8/22/2008	1.06	1.05	N/R	1.07	1.40	N/R
8/29/2008	1.18	0.98	N/R	1.04	1.32	N/R
9/5/2008	0.90	0.78	N/R	1.02	1.17	N/R
9/12/2008	0.85	0.83	N/R	0.87	1.00	N/R
9/19/2008	0.91	1.03	N/R	0.97	1.07	N/R
9/25/2008	0.74	0.68	N/R	0.74	0.96	N/R
10/3/2008	0.77	0.54	N/R	0.81	0.92	N/R
10/10/2008	0.71	0.58	N/R	0.77	1.03	N/R
10/17/2008	0.69	0.62	N/R	0.70	0.98	N/R
10/23/2008	0.66	0.89	N/R	0.91	0.71	N/R
10/31/2008	0.47	0.50	N/R	0.62	0.68	N/R
11/7/2008	0.42	0.58	0.43	0.53	0.53	0.60
11/14/2008	0.55	0.66	1.15	0.74	0.63	0.70
11/21/2008	0.90	0.81	0.90	1.02	1.20	1.02
11/25/2008	0.90	0.78	0.88	0.80	1.12	0.88
12/4/2008	0.74	0.78	0.76	0.94	1.02	0.92
12/12/2008	0.77	0.79	0.79	0.96	1.09	0.88
12/18/2008	0.80	0.83	0.80	0.84	1.03	0.86
12/22/2008	0.78	0.82	0.79	0.91	1.09	0.87
12/29/2008	0.83	0.80	0.86	0.84	0.98	0.93
1/9/2009	1.01	0.97	0.96	1.00	1.33	1.02
1/13/2009	1.12	0.96	0.94	0.98	1.28	1.01
1/23/2009	1.18	0.85	0.96	1.04	1.35	1.00
1/30/2009	1.16	0.88	0.91	0.99	1.19	0.98
2/6/2009	1.07	1.28	1.30	1.67	3.30	2.34
2/13/2009	1.08	1.03	0.97	1.07	2.04	1.23
2/20/2009	1.08	1.10	0.96	1.34	2.38	1.29
2/26/2009	0.80	0.97	0.86	1.20	1.44	1.12
3/6/2009	0.73	0.96	0.93	0.97	1.20	1.01
3/13/2009	0.81	1.26	1.05	1.16	1.68	1.16
3/20/2009	0.83	1.00	2.34	1.05	1.32	1.10
3/27/2009	0.50	0.56	0.55	0.80	0.95	0.76
4/2/2009	0.55	0.55	0.94	0.53	0.82	0.60
4/7/2009	0.68	0.71	0.87	0.77	0.91	0.78
4/19/2009	0.77	0.68	0.93	0.81	0.98	0.77
4/24/2009	0.43	0.48	0.39	0.60	0.73	0.74
5/1/2009	0.43	0.46	0.43	0.81	0.87	1.02
5/8/2009	0.40	0.54	0.43	0.58	1.03	0.55
5/15/2009	0.41	0.38	0.34	0.60	0.88	0.51
5/22/2009	0.43	0.44	0.40	0.53	0.70	0.65
5/29/2009	0.41	0.46	0.38	0.58	0.81	0.55
6/5/2009	0.38	0.58	0.62	0.34	0.60	0.48
6/12/2009	0.28	0.40	0.31	0.60	0.44	0.44

See notes on page 3.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36R (Area 2)	TW-02RRR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
6/26/2009	0.34	0.43	0.34	0.52	0.45	0.42
6/29/2009	0.33	0.42	0.57	0.50	0.83	0.60
7/7/2009	0.31	0.44	0.48	0.55	0.81	0.64
7/16/2009	0.30	0.37	0.27	0.37	0.73	0.43
7/24/2009	0.30	0.30	0.22	0.44	0.53	0.37
7/29/2009	0.33	0.36	0.28	0.41	0.55	0.41
8/7/2009	0.30	0.46	0.35	0.36	0.92	0.39
8/12/2009	0.31	0.41	0.28	0.42	0.41	0.34
8/20/2009	0.33	0.32	0.27	0.44	0.53	0.40
8/28/2009	0.25	0.31	0.34	0.52	0.77	0.47
9/3/2009	0.31	0.37	0.35	0.48	0.68	0.44
9/25/2009	0.45	0.58	0.35	0.52	0.73	0.50
10/2/2009	0.44	0.55	0.33	0.54	0.78	0.51
10/9/2009	0.41	0.53	0.32	0.58	0.95	0.77
10/15/2009	0.48	0.55	0.37	0.61	0.71	0.58
10/23/2009	0.43	0.51	0.54	0.80	0.74	0.61
11/17/2009	0.48	0.55	0.56	0.78	0.84	0.68
12/4/2009	0.42	0.53	0.48	0.76	0.88	0.71
1/20/2010	0.62	0.59	0.55	0.81	0.90	0.67
2/26/2010	0.57	0.51	0.47	0.77	0.91	0.74
3/12/2010	0.85	0.90	0.74	1.11	0.91	1.02
4/9/2010	0.78	0.94	0.68	0.98	0.87	0.86
5/7/2010	0.84	0.91	0.73	0.84	1.97	0.96
6/22/2010	0.52	0.47	0.60	0.47	0.82	0.58
7/8/2010	0.78	0.56	0.71	0.87	1.67	0.55
8/26/2010	0.64	0.40	0.35	0.67	1.70	0.98
9/23/2010	0.33	0.46	0.30	0.50	0.98	0.40
10/19/2010	0.30	0.37	0.46	0.48	0.85	0.48
11/23/2010	0.38	N/R	0.58	0.61	0.88	0.56
12/20/2010	0.41	N/R	0.48	0.54	0.81	0.40
1/12/2011	0.36	N/R	0.44	0.68	1.13	0.61
2/172011	0.58	N/R	0.36	0.55	1.30	0.75
3/2/2011	0.61	N/R	0.42	0.68	1.28	0.71
4/29/2011	0.34	N/R	0.35	0.76	1.31	0.77
5/20/2011	0.50	0.51	0.47	0.94	1.26	0.76
6/24/2011	0.40	0.35	0.25	0.15	0.36	0.12
7/13/2011	0.36	0.20	0.21	0.56	0.57	0.25
8/2/2011	0.37	0.22	0.26	0.36	0.47	0.25
9/19/2011	0.38	0.33	0.34	0.40	0.42	0.51
10/14/2011	0.36	0.36	0.55	0.42	0.52	0.66
11/7/2011	0.49	1.57	0.42	0.47	0.61	0.62
12/14/2011	0.42	0.43	0.47	0.79	0.85	0.52
1/10/2012	0.37	0.67	0.51	0.63	0.96	0.61
2/9/2012	0.56	0.50	0.54	0.50	0.70	0.50
3/7/2012	0.54	0.40	0.46	0.50	0.77	0.73
4/30/2012	0.44	0.38	0.49	0.55	0.93	0.51
5/18/2012	0.67	0.44	0.51	0.67	0.62	0.44
6/8/2012	0.61	0.51	0.54	0.69	0.79	0.66
7/20/2012	0.60	0.65	0.72	0.64	0.67	0.57
8/14/2012	0.67	0.62	0.67	0.69	0.71	0.59
9/24/2012	0.70	0.63	0.71	0.74	0.98	0.66
10/9/2012	0.53	0.54	0.56	0.55	0.71	0.52
11/9/2012	0.66	0.6	0.69	0.63	0.67	0.68
12/13/2012	0.68	0.68	0.67	0.60	0.82	0.64

Notes:

1. No readings were taken at MW-36 between 8/21/2006 and 6/1/2007 and 11/23/2010 and 4/29/2011.
2. DO readings were taken at TW-02RR and MW-8SR beginning 11/7/2008, just after the installation of the oxygen infusion system in Areas 2 and 3.
3. TW-02RR was replaced by TW-02RRR and MW-36 was replaced by MW-36R in 11/2010.

Abbreviations:

DO = dissolved oxygen.
N/R = no reading was taken.
ppm = parts per million.

Table 5. Summary of Groundwater COC Molar Concentrations and Percent COCs Removed (1998 - 2012)
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Year	Area 1		Area 2		Area 3	
	COC Molar Concentration (mol/L)	Percent Removed	COC Molar Concentration (mol/L)	Percent Removed	COC Molar Concentration (mol/L)	Percent Removed
1998	2.9E-05	0.0	6.1E-04	0.0	--	--
1999	2.2E-05	25.4	4.0E-04	34.6	4.1E-03	0.0
2000	7.7E-06	73.9	2.3E-04	63.0	5.5E-03	--
2001	7.8E-06	73.4	1.8E-04	70.7	3.5E-03	14.0
2002	1.0E-05	64.2	--	--	5.0E-03	--
2003	1.0E-05	65.1	3.4E-04	43.8	2.9E-03	28.8
2004	6.4E-06	78.3	2.1E-04	65.7	2.6E-03	35.7
2005	6.1E-06	79.2	3.4E-05	94.4	1.9E-04	95.3
2006	1.6E-06	94.7	2.2E-05	96.3	1.8E-04	95.5
2007	4.4E-07	98.5	1.9E-05	96.9	5.9E-05	98.6
2008	4.7E-07	98.4	2.0E-05	96.7	9.0E-05	97.8
2009	2.3E-06	92.2	8.0E-06	98.7	4.2E-05	99.0
2010	3.4E-07	98.9	6.3E-06	99.0	4.5E-06	99.9
2011	3.5E-07	98.8	4.3E-06	99.3	2.3E-06	99.9
2012	3.2E-07	98.9	2.6E-06	99.6	1.7E-07	99.99

Notes:

1. Constituents of Concern (COC) molar concentrations (moles per liter [mol/L]) were calculated from the sum of the COCs for each sampling date and averaging all COC sums for each year.

2. -- = molar concentrations or percent removed could not be calculated due to data outliers that were inconsistent with historical data.

OU2 = Operable Unit 2

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Figures

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SITE PLAN

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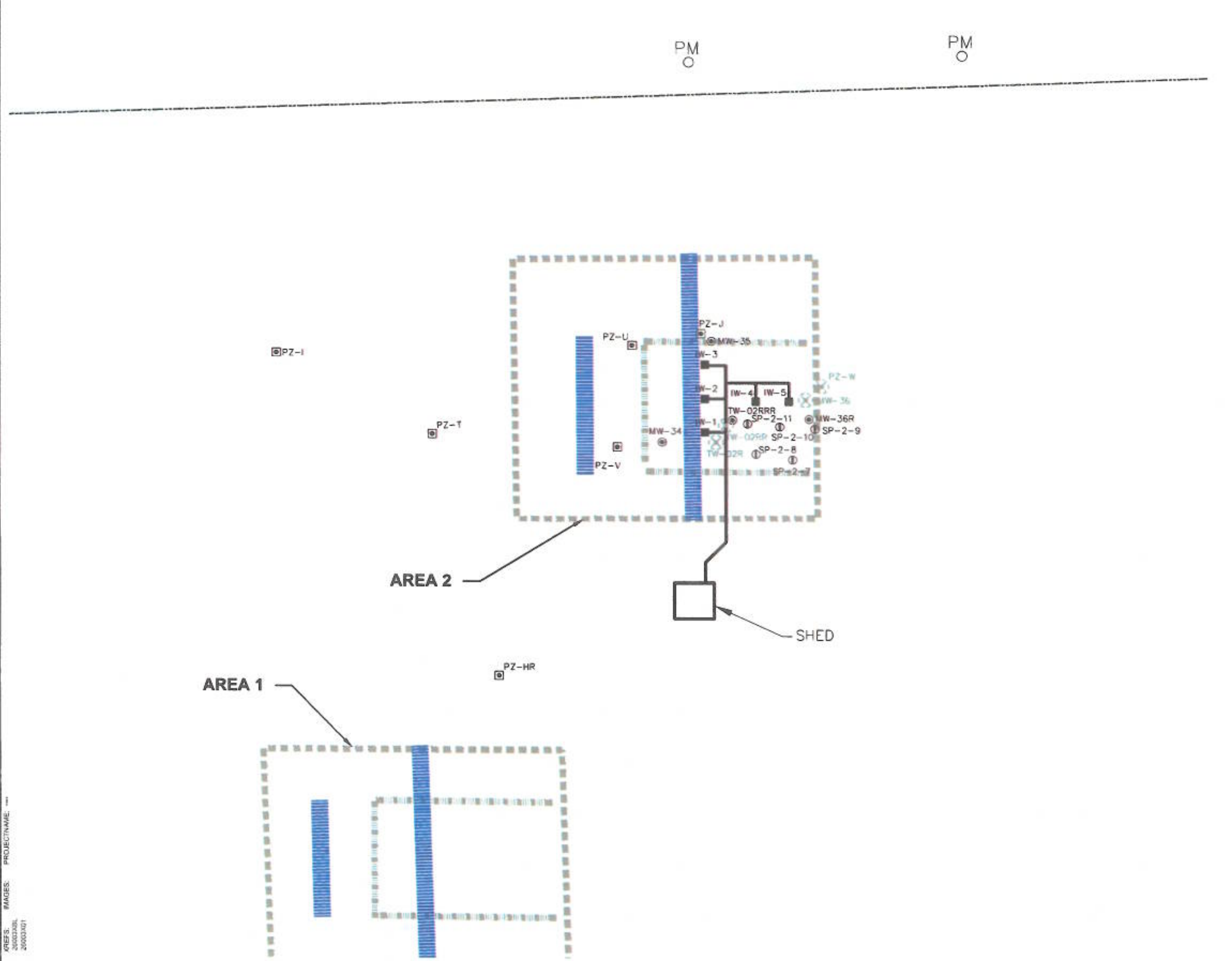
FIGURE 1



LEGEND:

- PROPERTY LINE
- PM PETROLUEM PIPE LINE MARKER
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- TW-02R REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- IW-3 OXYGEN INFUSION WELL
- SP-2-7 STANDPIPE LOCATION
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH
- PVC CONDUIT CARRYING POLYURETHANE TUBES
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. LOCATIONS ARE APPROXIMATE.

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OXYGEN INFUSION SYSTEM LAYOUT AREA 2

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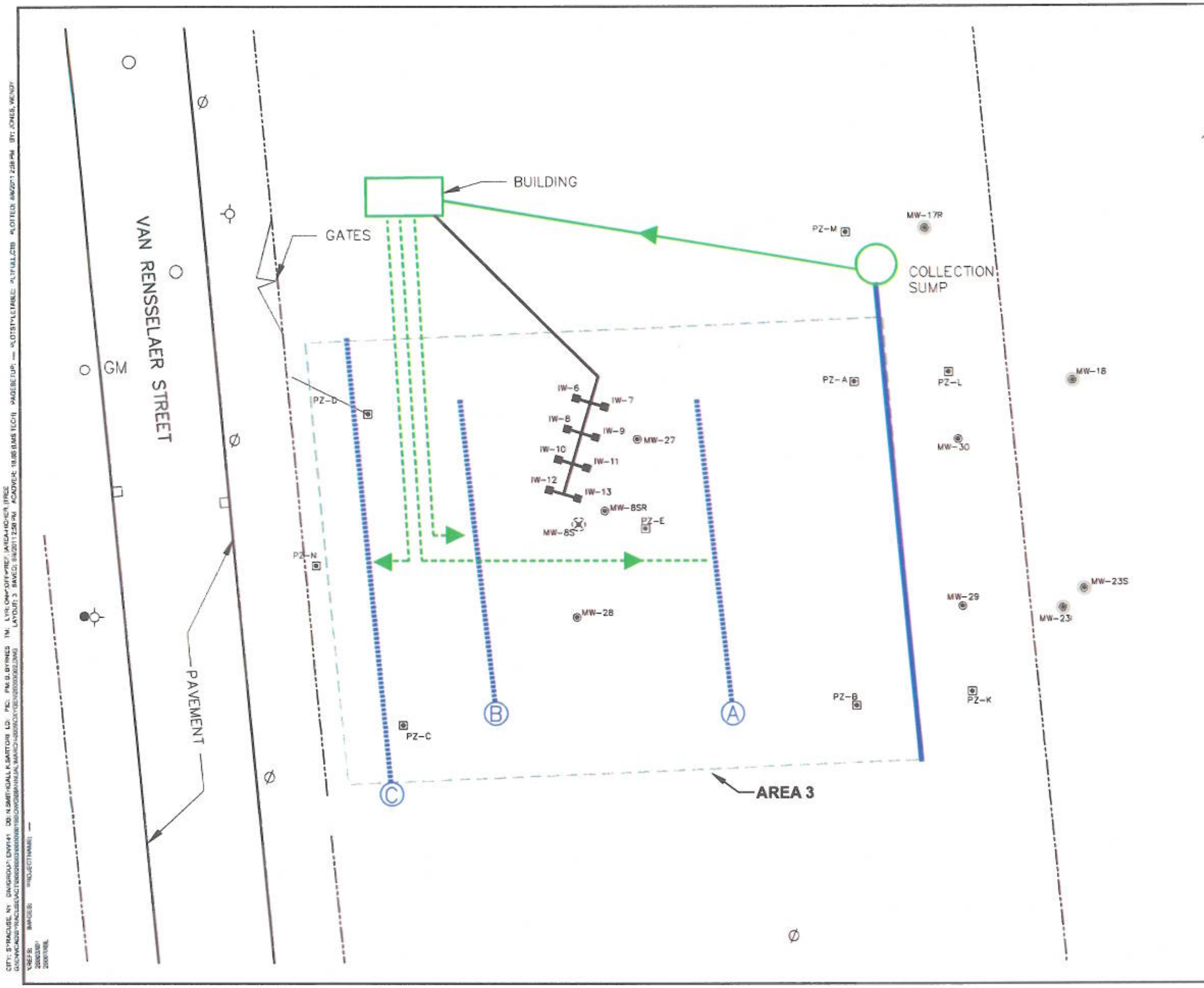
FIGURE 2



NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. LOCATIONS ARE APPROXIMATE.

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OXYGEN INFUSION SYSTEM LAYOUT AREA 3

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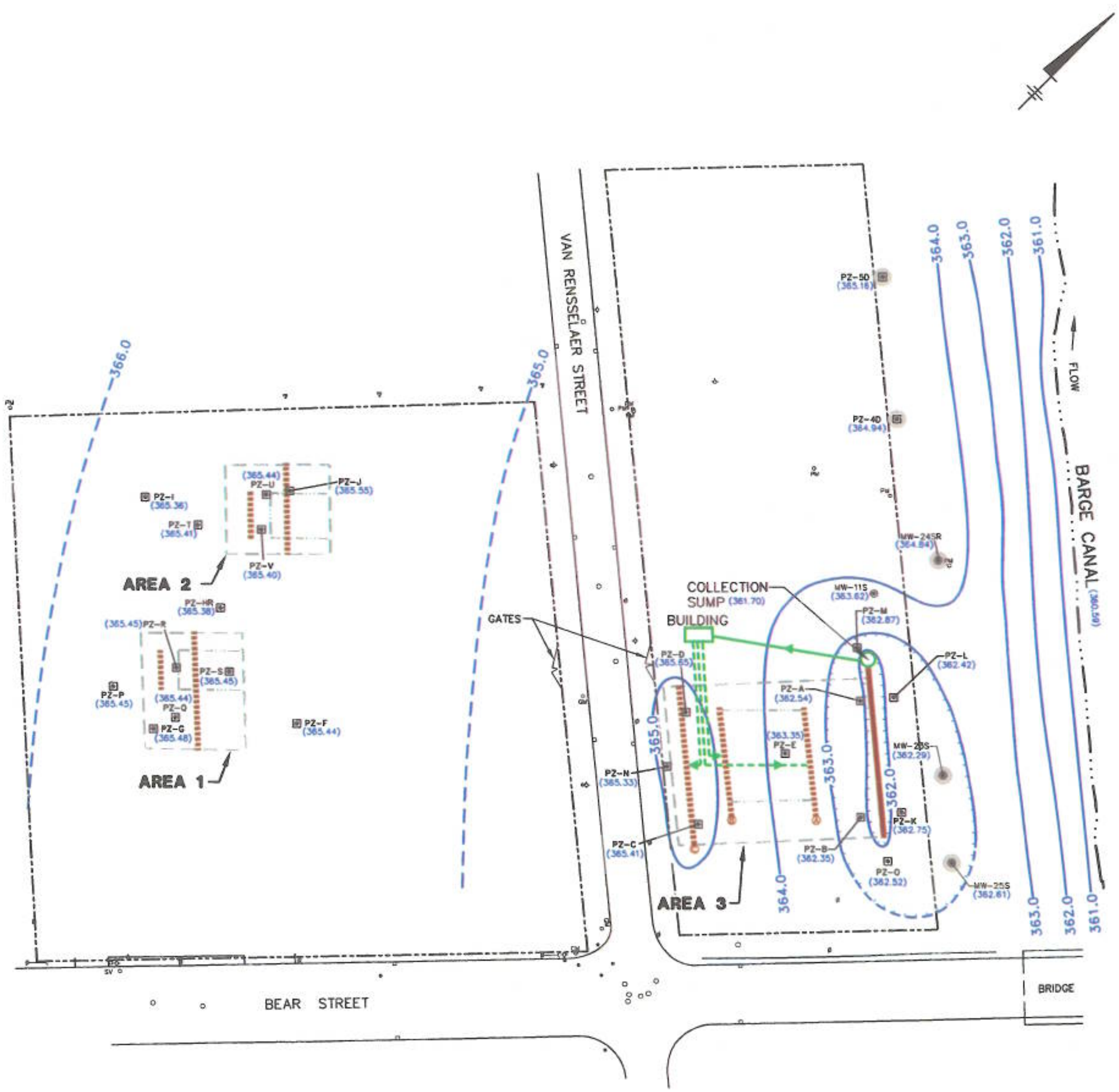
FIGURE 3



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- TREE LINE
- EDGE OF BARGE CANAL
- PROPERTY LINE
- MW-11S — GROUNDWATER MONITORING WELL
- OR — BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A — PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- Ⓐ GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- (365.63) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL)
- 361.0 GROUNDWATER ELEVATION CONTOUR (FEET AMSL) DASHED WHERE INFERRED
- [362.75] GROUNDWATER ELEVATION NOT USED FOR CONTOURING PURPOSES
- CLOSED DEPRESSION

NOTES:

1. ONLY THE HYDRAULIC MONITORING LOCATIONS USED TO DRAW THIS MAP ARE SHOWN.
2. REPLACED MONITORING WELLS AND PIEZOMETERS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
3. ELEVATIONS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
4. THE BARGE CANAL ELEVATION WAS MEASURED FROM A MARKED POINT ON THE BEAR STREET BRIDGE.
5. CONTOUR INTERVAL = 1 FOOT.

0 100' 200'
GRAPHIC SCALE

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POTENTIOMETRIC SURFACE OF THE SHALLOW HYDROGEOLOGIC UNIT SAND LAYER OCTOBER 1, 2012

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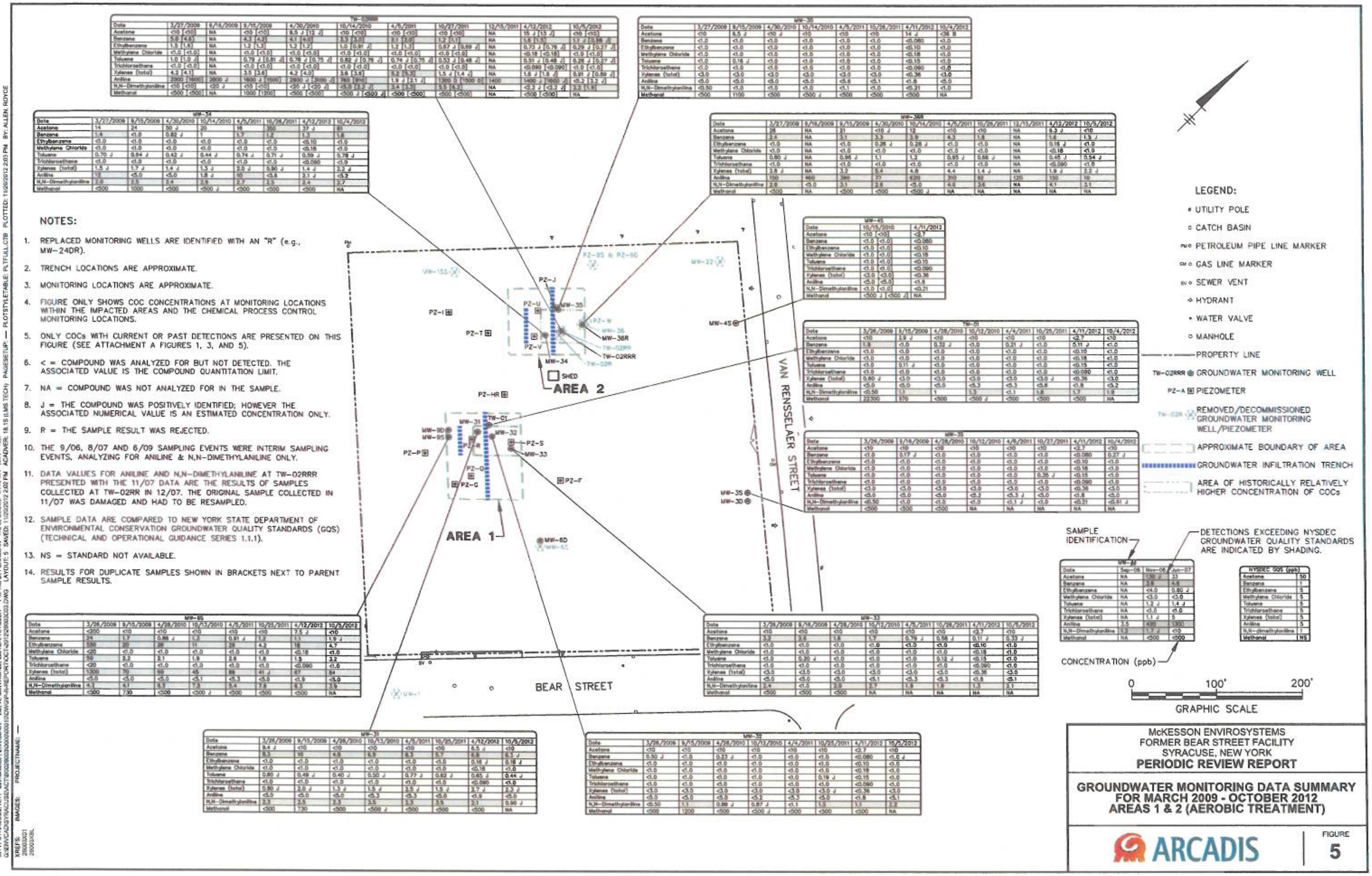
FIGURE
4



NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COCs WITH CURRENT OR PAST DETECTIONS ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 1, 3, AND 5).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY.
11. DATA VALUES FOR ANILINE AND N,N-DIMETHYLANILINE AT TW-02RRR PRESENTED WITH THE 11/07 DATA ARE THE RESULTS OF SAMPLES COLLECTED AT TW-02RR IN 12/07. THE ORIGINAL SAMPLE COLLECTED IN 11/07 WAS DAMAGED AND HAD TO BE RESAMPLED.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS = STANDARD NOT AVAILABLE.
14. RESULTS FOR DUPLICATE SAMPLES SHOWN IN BRACKETS NEXT TO PARENT SAMPLE RESULTS.

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GROUNDWATER MONITORING DATA SUMMARY FOR MARCH 2009 - OCTOBER 2012 AREAS 1 & 2 (AEROBIC TREATMENT)

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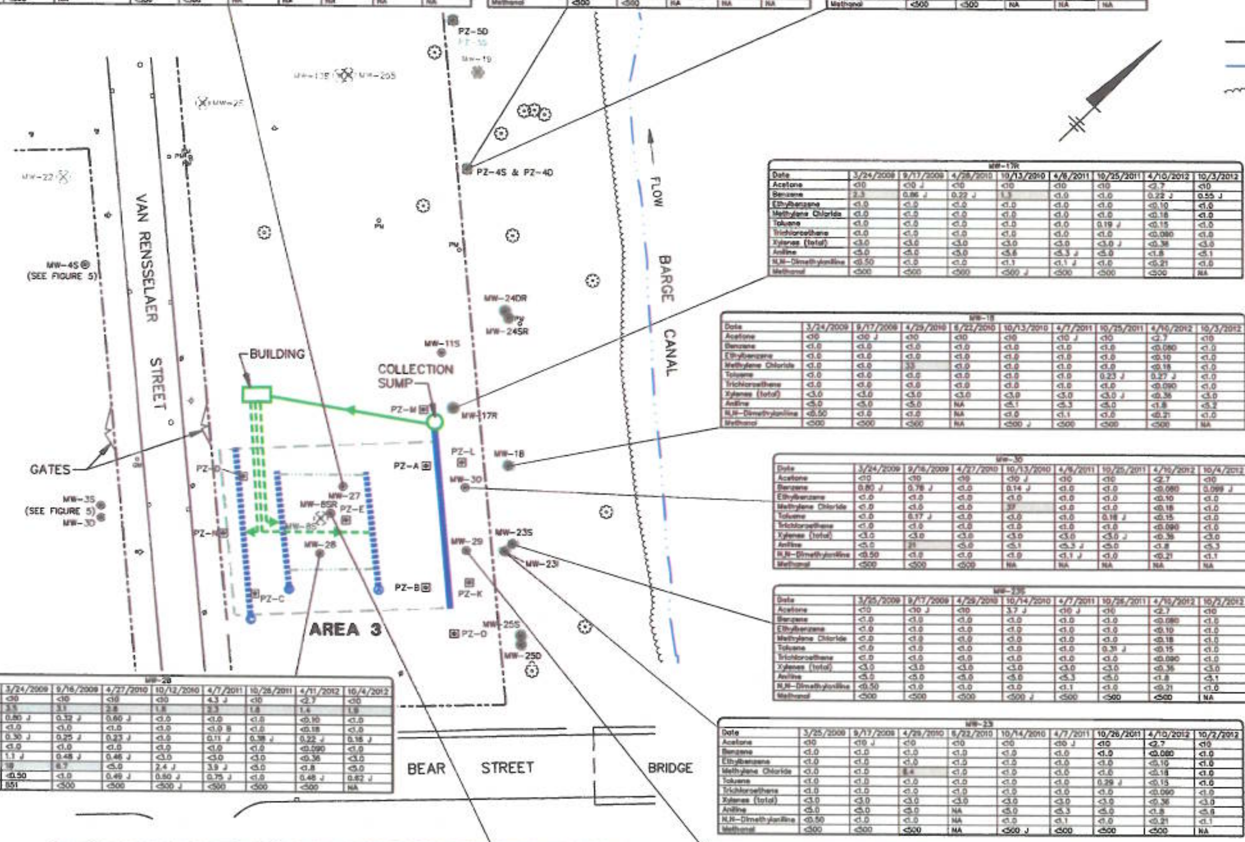
FIGURE 5



MW-27									
Date	3/24/2009	6/15/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011	4/12/2012	10/4/2012
Acetone	14 J	NA	10 J	<10	<10	3.9 J	<10	<2.7	<10
Benzene	8.7	NA	8.2	4.5	2.7	3.1	2.1	1.5	1.1
Ethylbenzene	38	NA	5.9	8.1	1.4	5.1	2.2	1.4	<1.0
Methylene Chloride	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18	<1.0
Toluene	8.4	NA	6.9	2.4	1.3	3.7	1.3	0.45 J	0.22 J
Trichloroethene	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	88	NA	23	10	3.4	8.1	3.1	2.2 J	<3.0
Aniline	6200 J	7900 J [10000 J]	2100	1300	220	1000	36	<1.9	<5.0
N,N-Dimethylaniline	<50 J	<50 J [<100 J]	<10	<10	2.5	<11	2.7	2.7	2.2
Methanol	<500	NA	<500	<500	NA	NA	NA	NA	NA

PZ-4S					
Date	3/25/2009	4/29/2010	6/22/2010	4/7/2011	4/10/2012
Acetone	<10	<10	<10 [<10]	<10 J	<2.7
Benzene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.10
Methylene Chloride	<1.0	17	<1.0 [<1.0]	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.15
Trichloroethene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0 [<3.0]	<3.0	<0.36
Aniline	<5.0	<5.0	NA	<5.3	<1.8
N,N-Dimethylaniline	<0.50	<1.0	NA	<1.1	<0.21
Methanol	<500	<500	NA	NA	NA

PZ-4D					
Date	3/25/2009	4/29/2010	6/22/2010	4/7/2011	4/10/2012
Acetone	<10	<10	<10	<10	<2.7
Benzene	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	3.3 J	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	0.23 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	NA	<5.3	<1.8
N,N-Dimethylaniline	<0.50	<1.0	NA	<1.1	<0.21
Methanol	<500	<500	NA	NA	NA

MW-17R								
Date	3/24/2009	9/17/2009	4/28/2010	10/13/2010	4/6/2011	10/25/2011	4/10/2012	10/3/2012
Acetone	<10	<10 J	<10	<10	<10	<10	<2.7	<10
Benzene	2.3	0.86 J	0.22 J	1.3	<1.0	<1.0	0.22 J	0.55 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.19 J	<0.15	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36	<3.0
Aniline	<5.0	<5.0	<5.0	<5.6	<5.3 J	<5.0	<1.8	<5.1
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.1	<1.1 J	<1.0	<0.21	<1.0
Methanol	<500	<500	<500	<500 J	<500	<500	<500	NA

MW-18									
Date	3/24/2009	9/17/2009	4/29/2010	6/22/2010	10/13/2010	4/7/2011	10/25/2011	4/10/2012	10/3/2012
Acetone	<10	<10 J	<10	<10	<10	<10 J	<10	<2.7	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	33	<1.0	<1.0	<1.0	<1.0	<0.18	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.23 J	0.27 J	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36	<3.0
Aniline	<5.0	<5.0	<5.0	NA	<5.1	<5.3	<5.0	<1.8	<5.2
N,N-Dimethylaniline	<0.50	<1.0	<1.0	NA	<1.0	<1.1	<1.0	<0.21	<1.0
Methanol	<500	<500	<500	NA	<500 J	<500	<500	<500	NA

MW-30								
Date	3/24/2009	9/16/2009	4/27/2010	10/13/2010	4/6/2011	10/25/2011	4/10/2012	10/4/2012
Acetone	<10	<10	<10	<10 J	<10	<10	<2.7	<10
Benzene	0.80 J	0.78 J	<1.0	0.14 J	<1.0	<1.0	<0.080	0.099 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	37	<1.0	<1.0	<0.18	<1.0
Toluene	<1.0	0.17 J	<1.0	<1.0	<1.0	0.18 J	<0.15	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36	<3.0
Aniline	<5.0	21	<5.0	<5.1	<5.3 J	<5.0	<1.8	<5.3
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1 J	<1.0	<0.21	<1.1
Methanol	<500	<500	<500	NA	NA	NA	NA	NA

MW-23S								
Date	3/25/2009	9/17/2009	4/29/2010	10/14/2010	4/7/2011	10/26/2011	4/10/2012	10/2/2012
Acetone	<10	<10 J	<10	3.7 J	<10 J	<10	<2.7	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.31 J	<0.15	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36	<3.0
Aniline	<5.0	<5.0	<5.0	<5.0	<5.3	<5.0	<1.8	<5.1
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1	<1.0	<0.21	<1.0
Methanol	<500	<500	<500	<500 J	<500	<500	<500	NA

MW-23									
Date	3/25/2009	9/17/2009	4/29/2010	6/22/2010	10/14/2010	4/7/2011	10/26/2011	4/10/2012	10/2/2012
Acetone	<10	<10 J	<10	<10	<10	<10 J	<10	<2.7	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	8.4	<1.0	<1.0	<1.0	<1.0	<0.18	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.29 J	<0.15	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36	<3.0
Aniline	<5.0	<5.0	<5.0	NA	<5.0	<5.3	<5.0	<1.8	<5.6
N,N-Dimethylaniline	<0.50	<1.0	<1.0	NA	<1.0	<1.1	<1.0	<0.21	<1.1
Methanol	<500	<500	<500	NA	<500 J	<500	<500	<500	NA

MW-29								
Date	3/24/2009	9/18/2009	4/27/2010	10/12/2010	4/6/2011	10/25/2011	4/11/2012	10/3/2012
Acetone	<10	<10	<10	<10	<10	<10	<2.7	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18	<1.0
Toluene	<1.0	0.16 J	<1.0	<1.0	<1.0	0.22 J	<0.15	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36	<3.0
Aniline	<5.0	<5.0	<5.0	<5.2	<5.3 J	<5.0	<1.8	<5.1
N,N-Dimethylaniline	<0.50	0.29 J	<1.0	<1.0	<1.1 J	0.22 J	<0.21	<1.0
Methanol	<500	<500	<500	NA	NA	NA	NA	NA

MW-28								
Date	3/24/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011	4/11/2012	10/4/2012
Acetone	<10	<10	<10	<10	4.3 J	<10	<2.7	<10
Benzene	3.5	3.1	2.8	1.8	3.3	1.8	1.6	1.9
Ethylbenzene	0.80 J	0.32 J	0.60 J	<1.0	<1.0	<1.0	<0.10	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0 B	<1.0	<0.18	<1.0
Toluene	0.30 J	0.25 J	0.23 J	<1.0	0.11 J	0.38 J	0.22 J	0.16 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090	<1.0
Xylenes (total)	1.1 J	0.48 J	0.46 J	<3.0	<3.0	<3.0	<0.36	<3.0
Aniline	18	6.7	<5.0	2.4 J	3.9 J	<5.0	<1.8	<5.0
N,N-Dimethylaniline	<0.50	<1.0	0.49 J	0.80 J	0.75 J	<1.0	0.48 J	0.82 J
Methanol	851	<500	<500	<500 J	<500	<500	<500	NA

MW-8SR									
Date	3/24/2009	6/15/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011	4/12/2012	10/4/2012
Acetone	6.5 J [5.8 J]	NA	<10 [8.3 J]	<10 [<10]	<10	5.9 J [4.3 J]	<10 [<10]	8.7 J [6.7 J]	<10 [<10]
Benzene	6.8 [6.8]	NA	8.5 J [7.9]	4.2 [3.5]	2.7	3.1 [3.3]	1.9 [2.0]	1.2 [1.7]	0.69 J [0.70 J]
Ethylbenzene	68 [63]	NA	44 J [38]	23 J [18]	18	10 [8.8]	2.0 [2.1]	2.3 [3.3]	0.16 J [0.14 J]
Methylene Chloride	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]	<0.18 [<0.18]	<1.0 [<1.0]
Toluene	10 [10]	NA	8.8 J [6.5]	4.8 [3.7]	2.0	2.8 [2.8]	1.3 [1.3]	0.76 J [1.2]	0.36 J [0.39 J]
Trichloroethene	<1.0 [<1.0]	NA	<1.0 J [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]	<0.090 [<0.090]	<1.0 [<1.0]
Xylenes (total)	140 [140]	NA	89 J [71]	41 [33]	30	32 [31]	14 [15]	9.5 [15]	1.4 J [1.2 J]
Aniline	2200 [1800]	7000 J	4000 [3400]	370 J [720 J]	220	57 J [64]	<5.0 [<5.0]	<1.9 [<1.9]	<5.3 [<5.0]
N,N-Dimethylaniline	<12 [<12]	<50 J	<20 [<20]	1.0 J [<5.0]	1.8	1.5 [1.6]	2.6 [<1.0]	2.4 [2.6]	2.3 [2.7]
Methanol	<500 [<500]	NA	<500 [<500]	<500 [<500]	NA	NA	NA	NA	NA

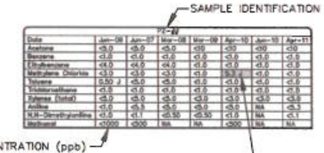
LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY
- LINE EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COCs WITH CURRENT OR PAST DETECTIONS ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 2, 4, AND 6).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. B = COMPOUND WAS FOUND IN ASSOCIATED METHOD BLANK.
11. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY. THE 6/10 SAMPLING EVENT WAS AN INTERIM SAMPLING EVENT ANALYZING FOR VOLATILE ORGANIC COMPOUNDS ONLY.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS = STANDARD NOT AVAILABLE.
14. RESULTS FOR DUPLICATE SAMPLES SHOWN IN BRACKETS NEXT TO PARENT SAMPLE RESULTS.

SAMPLE IDENTIFICATION



CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

NYSDEC GQS (ppb)	
Acetone	50
Benzene	1
Ethylbenzene	5
Methylene Chloride	5
Toluene	5
Trichloroethene	5
Xylenes (total)	5
Aniline	5
N,N-dimethylaniline	1
Methanol	NS

0 100' 200'

GRAPHIC SCALE

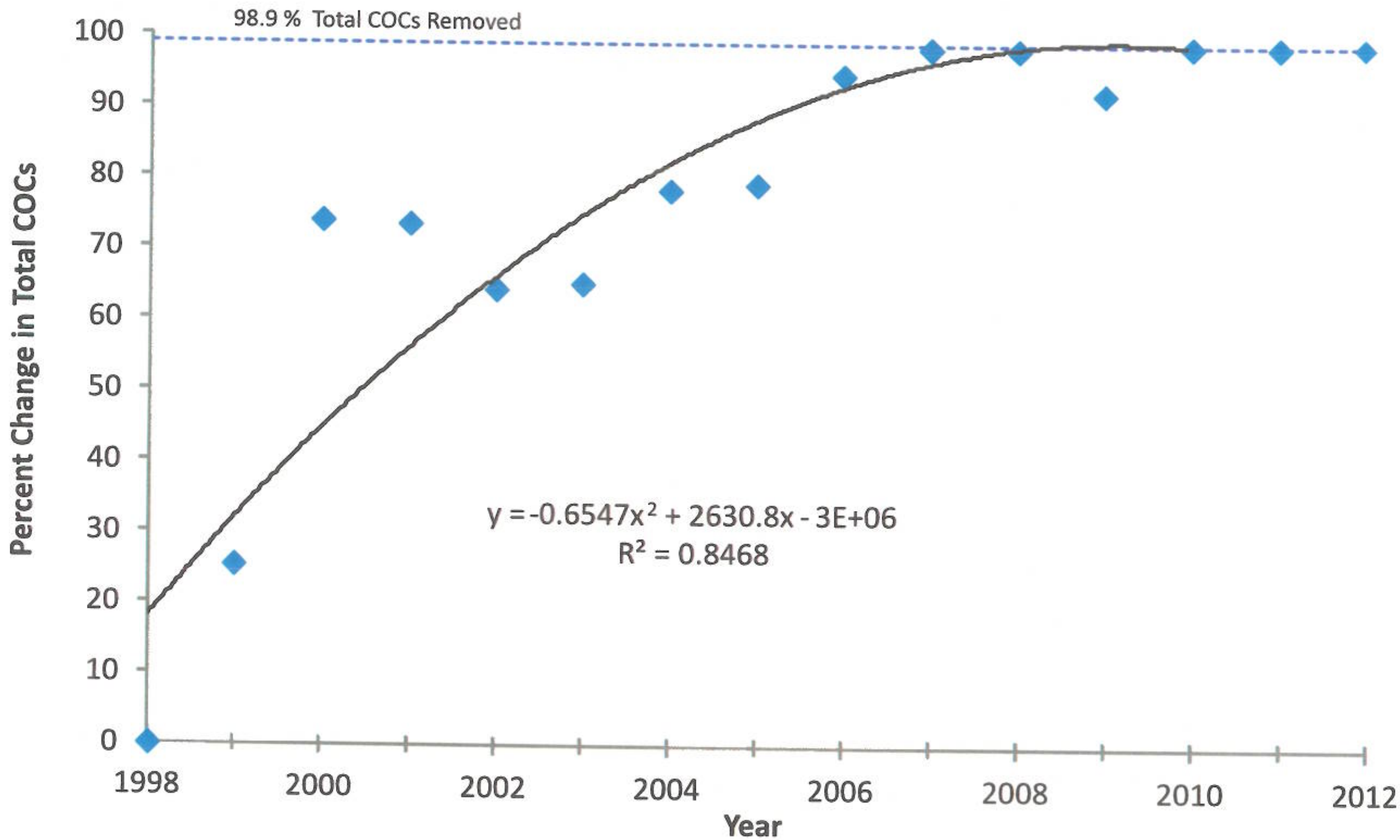
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR MARCH 2009 - OCTOBER 2012 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE 6

01/08/2013 SYRACUSE, NY-ENV/CAD- DJHOWES
B0026003/0000/00190/CDR/PRR/26003G01.CDR



Notes:

1. Data from monitoring wells MW-9S, MW-31, MW-32, MW-33, and TW-01 located in Area 1 were used to calculate change in percent total constituents of concern (COCs) removed.
2. The regression between time (2008-2012) and percent reduction indicates a non-significant mean slope of 0.77%/yr ($p=0.49$, $\alpha=0.05$, $r^2= 0.17$), with the 95% confidence interval ranging from -2.4 to 3.9%/yr.

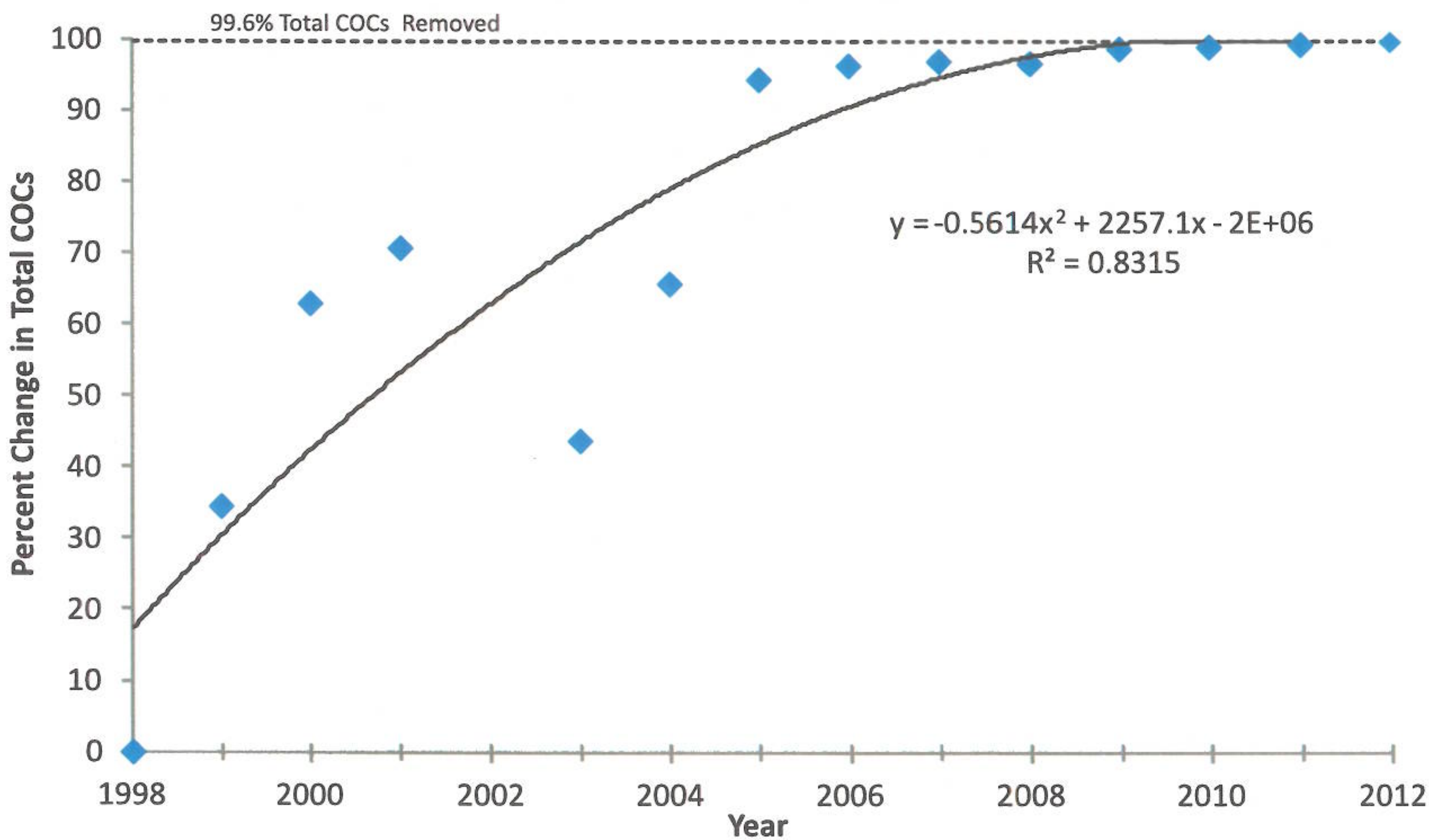
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY,
SYRACUSE N.Y.
PERIODIC REVIEW REPORT

AREA 1 PERCENT CHANGE IN TOTAL COCs DURING IN-SITU BIOREMEDIATION TREATMENT PROGRAM

ARCADIS

FIGURE
7

01/08/2013 SYRACUSE, NY-ENV/CAD- DJHOWES
B0026003/0000/00190/CDR/PRR/26003G02.CDR



Notes:

1. Data from monitoring wells MW-34, MW-35, MW-36, and TW-02RRR located in Area 2 were used to calculate change in percent total constituents of concern (COCs) removed.
2. The regression between time (2008-2012) and percent reduction indicates a slight positive statistically significant mean slope of 0.64%/yr ($p=0.050$, $\alpha=0.05$, $r^2= 0.77$), with the 95% confidence interval ranging from 0.0022 to 1.3%/yr.

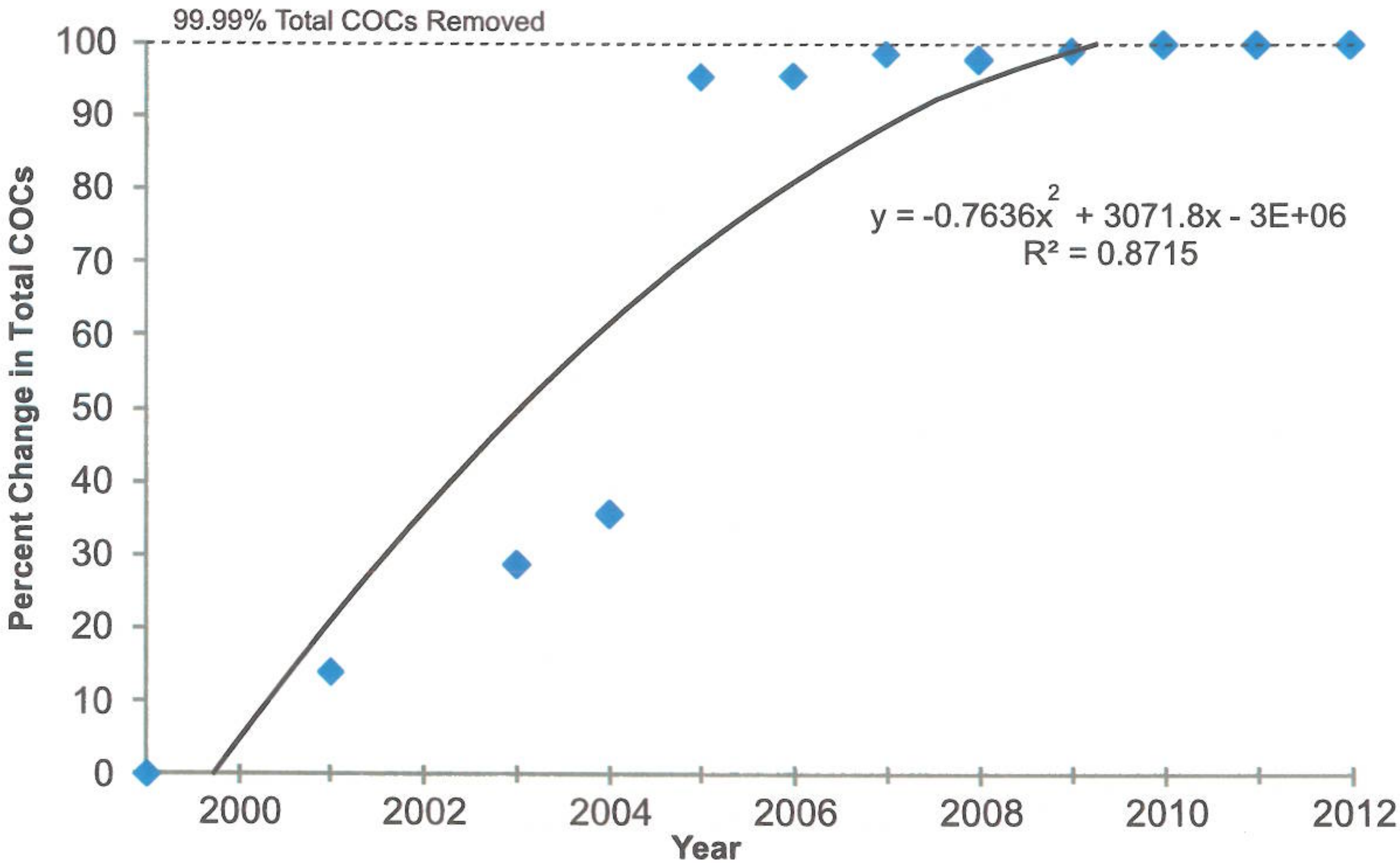
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY,
SYRACUSE N.Y.
PERIODIC REVIEW REPORT

AREA 2 PERCENT CHANGE IN TOTAL COCs DURING IN-SITU BIOREMEDIATION TREATMENT PROGRAM

ARCADIS

FIGURE
8

01/08/2013 SYRACUSE, NY-ENV/CAD- DJHOWES
B0026003/0000/00190/CDR/PRR/26003G03.CDR



Notes:

1. Data from monitoring wells MW-8SR, MW-27, and MW-28 located in Area 3 were used to calculate change in percent total constituents of concern (COCs) removed.
2. The regression between time (2008-2012) and percent reduction indicates a slight positive statistically significant mean slope of 0.53%/yr ($p=0.042$, $\alpha=0.05$, $r^2= 0.80$), with the 95% confidence interval ranging from 0.039 to 1.0%/yr.

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY,
SYRACUSE N.Y.
PERIODIC REVIEW REPORT

AREA 3 PERCENT CHANGE IN TOTAL COCs DURING IN-SITU BIOREMEDIATION TREATMENT PROGRAM

ARCADIS

FIGURE
9

ARCADIS

Attachment A

Table 1. Summary of Historical Groundwater Level Measurements

Table 2. Summary of Historical Groundwater Monitoring Data

Figures 1 – 7. Groundwater Monitoring Data Summaries

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	6/10/98 Static	6/22/98	7/6/98	7/20/98 Week 1	7/27/98 Week 2	8/5/98 Week 3	8/10/98 (morning) Week 4	8/10/98 (afternoon) Week 4	8/11/98 (morning) Week 4	8/11/98 (afternoon) Week 4	8/12/98 (morning) Week 4	8/12/98 (afternoon) Week 4	10/16/98 Week 13	11/17/98 Week 18
Canal	393.39*	362.91	363.37	363.72	363.08	363.08	362.94		362.78	362.94			362.84	363.27	
Collection Sump	372.81	364.33	363.08	363.68	362.50	361.31	361.83	361.89	362.14	361.00	361.71	361.95	362.31	362.01	361.48
MW-3S	376.54	365.93	366.26	367.82	366.20			365.29							365.25
MW-3D	375.56	365.63	365.87	366.16			364.97	364.85						365.08	365.00
MW-6D	377.07	365.75	366.01	366.29										365.25	365.15
MW-8D	374.68	365.51	365.74	366.05			364.80		364.67	364.79	364.88	364.87	364.87	364.93	364.83
MW-9D	376.76**	365.78					365.14	365.10						365.25	365.16
MW-11D	373.68	365.46	365.67	365.29			364.62	364.49	364.50	364.62		364.69	364.67	364.77	364.68
MW-11S	373.50	364.88	364.62	365.11	364.12	363.70	363.58	363.52	363.58	363.73		363.69	363.74	363.74	363.69
MW-18	372.57	362.64													361.90
MW-19	376.00	362.42													361.78
MW-23I	372.77	365.04	365.34	365.72			364.34		364.45	364.16			364.43	364.43	364.34
MW-23S	372.61	363.99	363.43	364.04	362.92	362.50	362.41		362.40	362.66		362.54	362.67	362.68	362.56
MW-24DR	375.14	365.41													364.63
MW-24SR	375.55	365.15	365.32	365.66	364.91	364.45	364.27		364.20				364.36	364.47	364.37
MW-25D	373.67	365.43													364.74
MW-25S	373.39	363.91	363.64	364.14	363.21	362.95	362.75		362.75			362.89	362.96	363.01	362.89
PZ-4D	376.11	365.46	365.73	366.01	365.21	364.83	364.63		364.54	364.67	364.75	364.74	364.70	364.80	364.69
PZ-5D	375.58	365.66	365.91	366.18	365.36	365.07	364.84		364.76	364.88	364.94	364.93	364.91	364.99	364.89
PZ-8D	375.83	365.90	366.11	366.35			365.25	365.13	365.83					365.35	365.27
PZ-9D	377.29	365.73					365.47	365.28						365.12	365.03
PZ-A	373.94	364.49	363.69	364.28	363.13	362.58	362.56	362.62	362.76	363.39	362.82	362.64	363.02	362.75	362.56
PZ-B	373.92	364.49	363.60	364.21	363.02	362.62	362.50	363.26	362.71	363.00	362.97	362.59	363.01	362.67	362.54
PZ-C	374.85	365.69	366.29	367.02	365.93	365.97	365.47	365.38	365.30	365.54	365.99	365.53	365.54	365.56	365.52
PZ-D	375.12	365.78	366.25	366.99	365.99	365.91	365.53	365.37	365.30	365.53	366.06	365.58	365.67	365.59	365.55
PZ-E	374.12	364.75	364.25	364.86	363.73	364.00	363.41	363.61	363.54	364.22	364.67	364.67	364.08	363.57	363.67
PZ-F	377.06	366.17					365.56	365.50						365.37	365.27
PZ-G	377.16	366.21					365.66	365.60						365.46	365.36
PZ-HR	376.99	366.16					365.54							365.44	365.34
PZ-I	375.15	366.56					365.86	365.64						365.88	365.57
PZ-J	374.89	366.15					365.53	365.40						365.53	365.39
PZ-K	373.19	364.53	363.78	364.35	363.27	362.69	362.69	362.71	362.75	362.92	362.80	362.78	362.98	362.82	362.66
PZ-L	374.62	364.25	363.59	364.18	363.04	362.42	362.48	362.44		362.88	362.63	362.57	362.84	362.65	362.40
PZ-M	374.35	364.70	364.09	364.64	363.52	362.96	362.96	362.96	363.09	363.29	363.15	363.05	363.30	363.12	362.93
PZ-N	376.94***	365.79	366.37	367.06	365.99	365.91	365.53	365.39	365.33	365.55	365.97	365.58	365.59	365.59	365.55
PZ-O	375.36	364.29	363.68	364.29	363.21	362.84	362.72	362.87	362.78	363.05	362.97	362.80	363.03	362.81	362.74
PZ-P	376.89	366.25					365.65	365.60						365.52	365.39
PZ-Q	377.61	366.23					365.64	365.57						365.45	365.35
PZ-R	377.05	366.23		366.94			365.65	365.57						365.50	365.38
PZ-S	378.13	366.19					365.57	365.52						365.43	365.35
PZ-T	376.25	366.14					365.54	365.43						365.52	365.38
PZ-U	375.35	365.99		366.81			365.50	365.33						365.37	365.30
PZ-V	375.78	366.07					365.48	365.35						365.43	365.29
PZ-W	375.78	366.07					365.46	365.31						365.41	365.28

See notes on page 4.

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	12/16/98 Week 22	12/22/98 Week 23	1/6/99 Week 25	1/13/99 Week 26	4/14/99 Week 39	6/3/99 Week 46	7/13/99 Week 52	3/27/00	6/1/00	9/18/00	11/14/00	3/19/01	9/24/01
Canal	393.39*	363.14	362.21	363.11			363.22	362.78	363.73	363.75	362.75^	363.24	363.01	362.96
Collection Sump	372.81	361.75	363.09	361.93	361.73	363.17	362.45	361.87	362.99	361.48	361.69	361.66	361.59	362.04
MW-3S	376.54	365.67	366.81	365.67	365.25		365.26		357.10					
MW-3D	375.56	365.04		365.04	364.91	365.41	364.92	364.57	355.64	365.57	364.81	355.16	365.40	364.54
MW-6D	377.07	365.23	365.36	365.23	365.06	365.62	365.12	364.79	365.85	365.77	364.97	365.34	365.64	364.75
MW-8D	374.68	364.86		364.88	364.74	365.22	364.77	364.35	365.42	365.36	364.62	364.94	365.18	364.34
MW-9D	376.76**	365.22	365.36	365.26	365.08	365.65	365.17	364.83	365.88	365.80	365.01	365.36	365.68	364.76
MW-11D	373.68	364.73		364.73	364.57	365.02	364.60	364.18	365.24	365.18	364.46	364.81	364.96	364.18
MW-11S	373.50	363.69	364.27	363.79	363.61	364.50	363.88	363.39	364.72	364.35	363.55	363.86	364.48	363.33
MW-18	372.57	361.93	362.05	362.05	361.84	362.18	361.79	361.38	362.43	361.77	361.71	362.08	362.17	361.50
MW-19	376.00	361.84	361.98	361.87	361.89	362.15	361.80	361.46	362.58	361.88	361.90	362.25	362.44	361.82
MW-23I	372.77	364.36		364.47	364.26	364.69	364.28	363.83	364.99	364.93	364.25	364.58	364.73	363.99
MW-23S	372.61	362.52	363.35	362.66	362.46	363.64	362.94	362.42	363.85	363.17	362.64	362.87	363.59	362.36
MW-24DR	375.14	364.67	364.81	364.69	364.54	364.96	364.49	364.09	365.19	364.60	364.39	364.77	364.91	364.16
MW-24SR	375.55	364.44	364.66	364.50	364.33	364.87	364.41	363.95	365.12	365.55	364.30	364.60	364.86	364.05
MW-25D	373.67	364.76		364.77	364.64	365.07	364.64	364.20	365.28	365.20	364.51	364.84	364.97	364.22
MW-25S	373.39	362.87	363.48	362.96	362.79	363.89	363.20	364.75	364.12	363.69	362.94	363.23	364.14	362.61
PZ-4D	376.11	364.73	364.87	364.72	364.55	365.02	364.60	364.22	365.28	365.21	364.49	364.82	365.03	364.22
PZ-5D	375.58	364.93	365.09	364.94	364.78	365.28	364.86	364.47	365.57	365.48	364.71	365.10	365.36	364.46
PZ-8D	375.83	365.33	365.48	365.33	365.19	365.78	365.08	365.00						
PZ-9D	377.29	365.08	365.24		364.94	365.50	365.04	364.68	365.70	365.72	364.87	365.16	365.55	364.60
PZ-A	373.94	362.60	364.04	362.72	362.56	363.81	363.12	362.61	363.95	363.15	362.75	362.91	363.56	362.58
PZ-B	373.92	362.51	364.27	362.62	363.45	363.91	363.19	362.67	364.08	363.32	362.79	362.94	363.94	362.55
PZ-C	374.85	365.52	365.97	365.18	365.02	365.79	365.10	364.75	366.04	366.04	365.03	365.35	366.39	364.54
PZ-D	375.12	365.53	366.06	365.25	365.12	365.79	365.18	364.89	366.09	366.10	365.10	365.46	366.36	364.65
PZ-E	374.12	363.53	366.41	363.57	363.52	364.93	364.20	363.81	365.16	365.03	363.92	364.40	365.90	363.49
PZ-F	377.06	365.52	365.73	365.62	365.27	366.36	365.53	365.11	366.89	366.72	365.27	365.70	367.06	364.93
PZ-G	377.16	365.60	365.76	365.71	365.44	366.44	365.61	365.17	366.89	366.80	365.36	365.75	367.11	364.93
PZ-HR	376.99	365.54	365.84	365.60	365.39	366.34	365.55	365.11	366.80	366.68	365.33	365.66	367.02	364.91
PZ-I	375.15	365.90	366.59	366.05	365.76	366.93	365.79	365.23	367.30	367.23	365.55	366.08	367.81	364.91
PZ-J	374.89	365.55	365.93	365.59	365.47	366.21	365.53	365.14	366.55	366.50	365.32	365.64	366.69	364.96
PZ-K	373.19	362.66	363.70	362.78	362.58	363.87	363.13	362.59	363.97	363.19	362.69	362.86	363.53	362.49
PZ-L	374.62	362.51	363.59	362.65	362.45	363.69	363.00	362.47	363.84	363.03	362.61	362.68	363.42	362.47
PZ-M	374.35	363.01	364.07	363.13	362.94	364.06	363.40	362.90	364.22	363.54	363.05	363.24	363.86	362.90
PZ-N	376.94***	365.56	366.09	365.31	365.12	365.87	365.19	364.87	366.17	366.12	NM	365.35	366.43	364.47
PZ-O	375.36	362.75	363.74	362.87	362.68	364.01	363.25	362.73	364.22	363.57	362.86	363.06	364.22	362.64
PZ-P	376.89	365.61	365.78	365.73	365.44	366.43	365.59	365.18	366.85	366.73	365.34	365.77	367.02	364.93
PZ-Q	377.61	365.59	365.70	365.71	365.42	366.44	365.60	365.16	366.93	366.78	365.26	365.76	367.21	364.89
PZ-R	377.05	365.61	365.81	365.67	365.47	366.46	365.61	365.20	366.89	366.81	365.37	365.72	367.21	364.93
PZ-S	378.13	365.57	365.94	365.65	365.40	366.39	365.56	365.15	366.84	366.73	365.32	365.71	367.12	364.90
PZ-T	376.25	365.58	365.96	365.64	365.47	366.34	365.53	365.10	366.71	366.65	365.29	375.70	366.90	364.90
PZ-U	375.35	365.49	365.91	365.55	365.40	366.17	365.46	365.08	366.55	366.49	365.22	365.60	366.75	364.85
PZ-V	375.78	365.47	365.90	365.52	365.37	366.20	365.44	365.06	366.54	366.50	365.25	365.58	366.76	364.83
PZ-W	375.78	365.44	365.78	365.53	365.33	366.15	365.41	365.02	366.49	366.41	365.20	365.59	366.63	364.85

See notes on page 4.

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	4/15/02	6/3/02	6/18/02	10/7/02	1/20/03	5/5/03	10/27/03	6/14/04	11/1/04	6/6/05	10/31/05	6/5/06
Canal	393.39*	364.59	363.64	364.17	362.19	^^	363.34	363.34	363.39	363.39	364.39^^^	363.84	363.69
Collection Sump	372.81	362.27	361.50	361.42	362.05	361.90	361.91	361.86	362.11	362.00	361.49	362.96	361.70
MW-3S	376.54	367.70	366.26	367.50	364.26	366.27	366.38	366.98	366.65	365.54	365.82	368.11	368.19
MW-3D	375.56	364.16	364.55	365.10	363.92	365.10	365.53	365.05	365.59	365.27	365.36	366.25	366.07
MW-6D	377.07	364.22	364.62	365.21	364.07	365.31	365.75	365.24	365.80	365.46	365.59	366.45	366.29
MW-8D	374.68	364.13	364.51	365.01	363.82	^^	365.30	364.83	365.39				
MW-9D	376.76**	364.05	364.47	365.10	364.00	365.31	365.79	365.26	365.85	365.51	365.64	366.47	366.34
MW-11D	373.68	364.07	364.44	364.92	363.73	364.81	365.17	364.75	365.26	364.93	364.00	365.94	365.78
MW-11S	373.50	363.57	363.89	364.33	363.09	364.15	364.38	363.89	364.34	363.98	364.12	365.06	365.04
MW-18	372.57	361.65	362.09	362.50	361.37	362.26	362.69	362.26	362.62	362.29	362.37	363.17	363.07
MW-19	376.00	361.83	362.11	362.57	361.51	362.52	361.91	362.46	362.89	362.59	362.69	363.50	363.38
MW-23I	372.77	363.99	364.34	364.80	363.62	364.60	365.01	364.56	364.99	364.67	364.77	365.66	365.47
MW-23S	372.61	363.97	363.38	363.68	362.50	362.26	363.31	362.81	363.04	362.77	362.80	364.05	363.80
MW-24DR	375.14	364.06	364.43	364.90	363.71	364.75	365.13	364.69	365.19	364.86	364.94	365.90	365.74
MW-24SR	375.55	364.00	364.40	364.86	363.64	364.69	365.03	364.62	365.12	364.78	364.88	365.81	365.66
MW-25D	373.67	364.19	364.57	365.02	363.82	364.82	365.24	364.74	365.26	364.93	365.00	364.49	365.77
MW-25S	373.39	364.39	363.83	364.21	362.74	363.61	363.67	363.19	363.49	363.08	363.14	365.63	364.13
PZ-4D	376.11	364.06	364.43	364.94	363.73	364.81	365.23	364.78	365.28	364.96	365.07	365.96	365.85
PZ-5D	375.58	364.12	364.47	365.03	363.81	365.05	365.49	365.02	365.53	365.20	365.29	365.19	365.98
PZ-8D	375.83												
PZ-9D	377.29	363.75	364.14	364.79	363.71	365.08	365.64	365.09	365.68	365.35	365.48	366.33	366.19
PZ-A	373.94	363.92	363.05	363.22	362.59	^^	363.40	363.57	363.18	362.89	362.96	364.20	364.14
PZ-B	373.92	364.44	363.24	363.40	362.65	363.39	363.47	363.89	363.21	362.92	362.92	364.32	364.32
PZ-C	374.85	365.68	365.38	366.26	364.19	365.65	365.76	365.44	366.07	365.50	365.65	366.65	366.45
PZ-D	375.12	365.58	365.41	366.21	364.21	365.65	365.84	365.53	366.11	365.62	365.75	366.75	366.57
PZ-E	374.12	366.51	364.63	364.77	363.47	364.94	365.00	366.92	364.58	364.07	364.47	365.25	366.51
PZ-F	377.06	365.50	365.51	366.29	364.29	366.25	366.41	365.46	366.65	365.75	366.13	367.59	367.16
PZ-G	377.16	365.39	365.53	366.22	364.36	366.35	366.46	365.43	366.68	365.81	366.14	367.76	366.97
PZ-HR	376.99	365.39	365.46	366.19	364.24	366.22	366.41	365.50	366.62	365.81	366.12	367.56	367.14
PZ-I	375.15	366.29	366.16	367.05	364.22	366.58	366.90	365.97	367.01	365.26	366.41	368.02	367.82
PZ-J	374.89	365.10	365.18	365.89	364.21	365.96	366.73	365.61	366.45	365.86	366.07	367.29	367.04
PZ-K	373.19	363.82	363.19	363.48	362.56	363.25	363.36	363.12	363.13	362.84	362.97	364.21	364.01
PZ-L	374.62	363.44	362.96	363.26	362.53	363.42	363.25	363.06	363.04	362.79	362.91	364.02	363.89
PZ-M	374.35	363.93	363.37	363.62	362.82	363.60	363.77	363.66	363.61	363.31	363.45	364.53	364.40
PZ-N	376.94***	366.60	365.29	366.13	364.09	365.54	365.74	364.48	365.95	365.47	365.53	366.56	366.41
PZ-O	375.36	364.47	363.63	363.98	362.75	363.61	363.53	363.36	363.43	363.04	363.13	364.36	364.26
PZ-P	376.89	365.31	365.48	366.19	364.25	366.25	366.45	365.53	366.65	365.87	366.20	367.63	367.19
PZ-Q	377.61	366.11	365.70	366.41	364.41	366.40	366.55	365.38	366.77	365.85	366.21	367.80	367.16
PZ-R	377.05	365.40	365.58	366.31	364.31	366.34	366.46	365.31	366.72	365.85	366.17	367.73	367.15
PZ-S	378.13	365.27	365.53	366.29	364.31	366.29	366.42	365.42	367.18	367.10	366.31	367.83	367.20
PZ-T	376.25	365.34	365.37	366.10	364.20	366.16	366.38	365.74	366.54	365.85	366.13	367.48	367.15
PZ-U	375.35	365.18	365.23	365.96	364.18	366.00	365.83	365.66	366.43	365.82	366.05	367.33	367.07
PZ-V	375.78	365.30	365.24	365.97	364.15	365.98	366.71	365.84	366.44	365.76	365.99	367.33	367.06
PZ-W	375.78	365.05	365.12	365.86	364.09	365.88	366.18	365.49	366.36	365.72	365.98	367.21	366.94

See notes on page 4.

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Notes:

1. Weeks 1, 2, 3, 4, 13, 18, 22, 23, 25, 26, 39, 46 and 52 are weeks after the initial introduction of Revised Anaerobic Mineral Media (RAMM) into the three impacted areas.
2. 8/10, 8/11, and 8/12/98 water level measurements were taken during the initial discrete RAMM injection event.
3. AMSL = above mean sea level (NGVD of 1929)
4. The groundwater level in PZ-8D was not measured on 3/27/00 and 6/1/00 because this piezometer was damaged and subsequently decommissioned on August 30, 2000.
5. ^ = The canal water-level measurement for the third quarter of the first year of the long-term process control monitoring program was obtained on September 29, 2000.
6. * = The reference elevation for canal gauging point was 363.06 feet AMSL prior to 11/16/00. The canal gauging point was re-marked and re-surveyed 11/16/00. The new reference elevation is 393.39 feet AMSL.
7. NM = The groundwater level in PZ-N was not measured on 9/18/00 because this piezometer was damaged. This piezometer was repaired and subsequently resurveyed on 11/16/00. The new reference elevation for PZ-N is 376.94 feet AMSL.
8. 376.76** = The reference elevation for MW-9D as of 9/19/01.
9. *** = The reference elevation for PZ-N was 376.02 feet AMSL prior to 11/16/00 and, as noted above, the new reference elevation is 376.94 feet AMSL.
10. ^^ = Due to frigid weather conditions, the groundwater level in PZ-A and MW-8D could not be measured on 1/20/03, because the locks were frozen. The canal water level for the 1/03 resampling event could not be measured due to strong winds and ice on the water surface.
11. Monitoring location MW-8D was decommissioned on August 3, 2004.
12. The canal water level measurement for the 2005 second quarter long-term process control monitoring program was obtained on November 1, 2005.
13. ^^^ = The water level measurement of the canal collected during the first 2005 monitoring was not measured from the correct measuring point. The spring 2005 measurement was taken approximately 3 feet higher than the surveyed measuring point. This value reflects the corrected canal water level for the spring 2005 monitoring event.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-1[K]	3/88	370.3	355.3	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			**0.7 JN**	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			**8 J**	<10 J	**3 J**	<10 J	**5.0 J**	<1,000	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	10
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	4/02			<12	<5.0	<5.0	<5.0	<10	**990 J**	<5	<5	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**2 J**	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	**0.2 J**	<1.0	<3.0
	11/05			<1.3 J	<0.3	<0.4	<0.5	<0.5	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0 J	<1.0 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	<1.0 J	<3.0 J
	11/06			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0	<3.0
	6/07			<5	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			**7.4**	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-2S	3/88	368.1	353.1	<1,000	1,900	110	610	2,800	<1,000	<10	<10	<10	<10
	1/89			<1,000	2,000	65	330	1,200	<1,000	<10	<11	<11	<10
	11/89			<1,000	1,800	<100	360	810	**38,000**	<100	<100	<100	<100
MW-3S	3/88	365.1	350.1	<100	<1	<1	<1	<1	<1,000	50	<10	<10	110
	1/89			<10,000	<100	120	<100	<100	<1,000	1,100	<11	5,570	4,700
	11/89			<10,000	<100	<100	<100	<100	<1,000	100	<52	440	2,700
	11/91			2,900	10	10	**4.0**	31	<1,000	<10	790	170	<10
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5.0	15	2.0 J	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10	**1 J**	**0.7 J**	<10	<10	<1,000	<10	9 J	<10	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	9/00			<10 J	**1 J**	**2 J**	<10 J	<10 J	<1,000	<10 J	**2 J**	**1 J**	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	3 J	8 J	**1 J**	**2 J**	<1,000 J	<10	690 D (69)[B]	4 J	<10
	4/02			<12	<5	<5	<5	<10	**370 J**	<5.0	**1.7 J**	<5	<5

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Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-3S	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
(cont'd)	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			6.0 J	<10	<10	<10	<20	<1,000	<10	0.8 J	<6	<10
	11/04			<25	<10	<10	<10	<20	150 J	<10	4 J	<5.0	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	15	<1.0	<3.0
	11/05			<1.3 J	<0.3	<0.4	<0.5	<0.4	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-3D	8/95	343.8	339	<1,000	<25 D	<25 D	<25 D	<25 D	<1,000	<25 D	1 J	5 J	200 D
MW-4S	3/88	365.5	350.5	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	<11	19	280
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-5[C]	3/88	363.3	348.3	<100	<1	<1	<1	<1	<1,000	<1	230	130	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	34	<11	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	17	<10	<1
MW-6[D]	1/89	365.5	355.9	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
(Replaced by MW-6S)	11/89			<10	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
MW-7[D]	1/89	367	357.4	<100	<1	<1	<1	2	<1,000	<1	<11	<11	100
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-8[D]	1/89	364.7	355.1	<1,000,000	<10,000	<10,000	<10,000	<10,000	430,000	<10,000	2,900	24,000	3,200,000
(Replaced by MW-8S)[E]	11/89			470,000	<10,000	<10,000	<10,000	<10,000	300,000	<10,000	8,500	52,000	2,800,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	150,000	<10,000	8,000	33,000	1,600,000
	8/95			<1,000	<250,000D	<250,000D	<250,000D	<250,000D	22,000	60,000 JD	<25,000D	380,000 D	7,700,000 D
	9/98			<10,000 J	<10,000	<10,000	<10,000	<10,000	7,900	3,300 J	1,200 J	26,000 D	140,000
	2/99			<20,000	<20,000	<20,000	<20,000	<20,000	16,000JN	11,000 J	30,000 D	120,000 D	650,000 DB
	7/99			10 J	22 J	240 J	58 J	220 J	17,000	11,000 J	24,000	77,000	450,000 D
	3/00			<100,000	<100,000	<100,000	<100,000	<100,000	30,000 J	<100,000	62,000	270,000 D	1,300,000
	9/00			<50,000 J	<50,000 J	<50,000 J	<50,000 J	<50,000 J	14,000 J	9,200 J	42,000 J	59,000	540,000 BJ
	3/01			<50,000	<50,000	<50,000	<50,000	<50,000	53,000	11,000 J	90,000 D	120,000 D	990,000
	9/01			<400	<400	430	170 J	680	8,900 J	18,000 JD	21,000	29,000	440,000 BD
	4/02			2,100	50 J	410	100 J	400	<1,000	9,600 J	793,000 D	773,000 D	660,000 D
	10/02			120 J	23	310	73	267	<1,000	3,100	80,000	21,000 J	320,000
	5/03			<12	20 J	600 D	81	300	<1,000	6,700 D	79,000 D	29 J	910,000 D
	10/03			21	25	330 D	93	360	1,200 J	3,100 D	67,000 D	24,000 D	400,000 D
	6/04			<25	40	330 EJ	110	400	<1,000	5,900 D	56,000	51,000	1,200,000 D

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-8SR[B]	11/04	362.7	352.7	<1,200	<500	100 DJ	<500	164 DJ	<1,000	<500	35,000 D	5,300 D	10,000 D
(cont'd)	6/05			81 J	13	100	53	180	<1,000	<1.0	30,000	<200	<3.0
	11/05			15 J	13	130	66	260	<1,000	<1.0	32,000	<260 J	<3.0
	6/06			48	15	120	79	260	<1,000	<1.0	23,000	<200	<3.0
	9/06			NA	NA	NA	NA	NA	NA	NA	52,000 [51,000]	<520 [<520]	NA
	11/06			28	16	100	84	270	<500	<1.0	28,000	<200	<3.0
	6/07			58	14	110	83	250	<500	<2.0	2,700	<22	<6.0
	8/07			NA	NA	NA	NA	NA	NA	NA	17,000	<100	NA
	11/07			<5.0 J	12	22	73	210	<500	<1.0	22,000 J	<100 J	<3.0
	3/08			<10 [9.6 J]	5.5 [5.7]	22 [22]	70 [68]	160 [160]	<500 [<500]	<2.0 [<2.0]	5,800 [5,200]	<25 [<50]	<6.0 [<6.0]
	8/08			8.2 J [<10]	11 [11]	24 [22]	70 [70]	190 [190]	<500 [<500]	<2.0 [<2.0]	32,000 [25,000]	<250 [<250]	<6.0 [<6.0]
MW-9[D]	1/89	365.6	356	1,600	NA	64	130	270	<1,000	<10	660	1,200	1,500
(Replaced by MW-9S)	11/89			<1,000	48	25	60	60	<1,000	<10	670	150	<10
	11/91			<100	<10	9	19	30	<1,000	<1.0	95	18	<1
	8/95			<1,000	11 JD	26 JD	69 D	226 JD	<1,000	<50	50	28	110 D
	7/99			<10	4 J	2 J	9 J	18	<1,000	<10	<10	5.0 J	<10
	3/00			<10	2 J	2 J	11	21	<1,000 J	<10	2.0 J	9.0 J	<10
	9/00			<10 J	11 J	2 J	6.0 J	18 J	<1,000	<10 J	1.0 J	6.0 J	<10 J
	3/01			<10	1 J	3 J	17	61	<1,000	<10	2.0 J	11	<10
	9/01			<10	10	3 J	7.0 J	35	<1,000 J	<10	<10	10	<10
	4/02			<23	10	2 J	6	17 J	370 J	<5	9	43	<5
	10/02			16 J	38	40	2 J	15 J	<1,000	<10	<5.0	2.0 J	<10
	5/03			<12	11	<5	7	18	<1,000	<5.0	0.9 J	3.0 J	<5
	10/03			<12	2 J	<5	5	19	<1,000	<5.0	1.0 J	<5.0	<5
	6/04			14 J	6 J	2.0 J	8 J	19 J	<1,000	<10	<5.0	<5.0	<10
	11/04			<25	4 J	2 J	9 J	30 J	<1,000	<10	<5.0	<5.0	<10
	6/05			44 J	1.9	3.2 J	24	64	<1,000	<1.0	2.6	1.9	<3.0
	11/05			<1.3 J	3.5	3.8	11	33	<1,000	<0.4	1.4	6.1 J	<0.5
	6/06			<5.0 J	1.1 J	2.3 J	25 J	60 J	<1,000 J	<1.0 J	<1.1 J	3.8 J	<3.0 J
	11/06			<5.0	1.4	3.5 J	23	63	<500	<1.0	0.5 J	3.3 J	<3.0
	6/07			<5.0	1.4	3.3 J	42	110	<500	<1.0	<5.0	4.1	<3.0
	11/07			<5.0	0.9 J	2.0 J	11	58	<500 J	<1.0	1.7 J	8.6	<3.0
	3/08			<5.0 J	1.1	3.0 J	37	73	<500	1.2	0.7 J	6.8	<3.0
	8/08			24	3.7	3.3 J	21	72	<500	<1.0	<5.5	5.1	<3.0
MW-10[D]	1/89	355.5	345.9	<1,000,000	<10,000	<10,000	<10,000	<10,000	210,000	<10,000	720	9,400	520,000
(Replaced by MW-9D)	11/89			<100,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	900	2,400	28,000
	11/91			<100	<1	3.0	2.0	<3.0	<1,000	<1	230	<10	41
	8/95			<1,000	<25 UD	<25 UD	<25 UD	<25 UD	<1,000	<25 UD	<5.0	<10	350 D
MW-11[D]	1/89	355.1	345.5	<100	<1	<1	<1	<1	8,400	<1	<12	<12	1
(Replaced MW-6D)	11/89			<100	<1	<1	<1	<1	<1,000	<1	230	<52	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-11S	12/94	359.9	354.9	<380	<10	<10	<10	<10	**880**	<10	<5	<10	<10
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<26
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
MW-11D	12/94	349.8	344.8	<310	<5	<5	<5	<5	**2,100**	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
MW-12D[D]	1/89	354.8	345.2	<100,000	<1,000	<1,000	<1,000	<1,000	**12,000**	<1,000	67	410	120,000
(Replaced MW-8D)[E]	11/89			69,000	<1,000	<1,000	<1,000	<1,000	**39,000**	<1,000	<1,000	4,900	360,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	<10,000	<10,000	750	5,800	220,000
	8/95			<1,000	450 JD	430 JD	430 JD	1,250 JD	<1,000	<1,300 D	30 D	230 D	<13,000 D
	8/96			**13**	<10	<10	<10	<10	<1,000	**2.0 J**	<5	<10	40
MW-13S	11/89	368.7	359.1	<100	3	<1	<1	<1	<1,000	<1.0	<52	<52	<1.0
	11/90			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/91			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/92			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
MW-14D[C]	1/89	359	349.4	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<10	<10	<1.0
MW-15S	1/89	370	360.25	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<52	<52	<1.0
MW-16D[C]	1/89	350.8	341.2	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<10	<10	<1.0
MW-17[C]	11/90	365.7	356.1	<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
(Replaced by MW-17R)	11/91			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/92			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<11
	10/95			NA	<5	<5	<5	<5	NA	**2 J**	NA	NA	<5
	8/96			**11**	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	1 J	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	8 J	<10	<10	<10	<1,000 J	<10	<5.0	<10	<10
	9/00			<10 J	15 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	24 J	4 J	1 J
	3/01			<10	8 J	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	5 J	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	6	<5	<5	<10	**620 J**	<5	150 (<5)[F]	110 (<5)[F]	<5
	10/02			<25 J	14	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	8	<5	<5	<5	<1,000	<5	<5	<5	<5
	11/03			<12	7	<5	<5	<10	<1,000	<5	<5	<5	<5

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-17[D]	6/04			<25	5 J	<10	<10	<20	<1,000	<10	<5	<5	<10
(cont'd)	11/04			--	--	--	--	--	**200 J**	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	**0.8 J**	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	**0.7 J**	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			**2.3 J**	**1.8**	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
MW-18	11/89	325.15	316.15	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<10	<10	<10	<20	**720 J**	<10	**280 D (<5)[F]**	**200 D (<5)[F]**	<10
	10/02			**6 J**	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	**280 J**	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.7 J**	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	R	R	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-18	8/08			5.5	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-19[K]	11/89	318.45	309.45	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<12
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	5 J	<11
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	10/03			<11	<5	<5	<5	<10	<1,000	<5	51 J	16 J	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.5	<1.1	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-20[C]	11/89	329.85	320.85	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
MW-21[C]	11/89	323.65	314.65	<100	<5	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-22[L]	11/89	368.55	359.55	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
MW-23S	12/94	364.1	354.1	<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-23S	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	7	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	11	<10	<10
	8/97			12	<10	<10	<10	<10	<1,000	<10	92	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	56[H]	7 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	10	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	2 J	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	2 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	2 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<62	<25	<25	<25	<50	380 J	<25	<5	<5	<25
	10/03			<12	<5	<5	<5	<10	<1,000	<5	60	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.2	<1.2	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-23I	12/94	341.2	336.2	<10	<5.0	<5	<5.0	<5.0	<200	<5.0	<5.0	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<11	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			4 J	<10	<10	<10	2 J	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	2 J
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-23I	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
(cont'd)	6/04			<25	<10	<10	<10	<20	<1,000	<10	**1 J**	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	**0.6 J**	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
MW-24S[CL]	12/94	358.4	352.4	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<5
(Replaced by MW-24SR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02[F]			NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	16	<6	<5
	6/04[J]			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.7	<0.6	<3.0
	9/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-24D[CL]	12/94	334.4	341.2	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<5
(Replaced by MW-24DR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02[F]			NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-24D[DL] (cont'd)	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.5 J**	<5	<5
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5 J	<1	<5	<4	<5	<1,000	<1	<1	<1	<3
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.7	<0.6	<3.0
	9/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-25S[L]	8/95	361.2	356.2	<1,000	<5	<5	<5	<5	<1,000	<5	<5	**0.7 J**	<10
	10/95			NA	<5	<5	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	**130**	<10	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	**110 J**	**21 J**	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	**5 J**	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	11/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.2	<0.5	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-25D[L]	8/95	349.55	344.55	<1,000	<5	<5	<5	<5	<1,000	<5	<5	**1 J**	<5
	10/95			NA	<5	<5	<5	<5	NA	**3 J**	<5	<10	<5
	8/96			**15**	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<11	<10

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Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-25D[L]	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
(cont'd)	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	**5 J**	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0 J	<1.0	**0.7 J**	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/07			**12 J**	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-26	12/96	365	355.3	<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
MW-27	9/98	362.5	354.5	**23**	3 J	**4 J**	<10	3 J	<1,000	<10	340 DJ	<10	<10
	7/99			<10 J	4 J	**2 J**	3 J	8 J	<1,000	<10	740 D	<10	<10
	3/00			<10	6 J	<10	8 J	2 J	<1,000 J	<10	110 D	**1 J**	<10
	9/00			<10 J	4 J	<10 J	3 J	1 J	<1,000 J	<10 J	16 J	2 J	**1 J**
	3/01			<10	5 J	<10	**5 J**	**2 J**	<1,000	<10	260 D	2 J	<10
	9/01			<10	5 J	<10	**2 J**	<10	<1,000 J	<10	26	<10	<10
	4/02			<18	7	11	12	26	<1,000	<5	176,000 DJ	19 J	<5
	10/02			**9 J**	3 J	<10	<10	<20	<1,000	**4 J**	2,700 D	100 J	60 JN
	5/03			<12	8	11	23	51	<1,000	<5	15,000 DJ	11	43
	10/03			170	5	<5	<5	3 J	<1,000	<5	3,700 D	<5	240 D
	6/04			**23 J**	5 J	4 J	2 J	6 J	<1,000	<10	3,700 D	20 J	<10
	11/04			<120 (28)	<50 (4 J)	<50 (2 J)	<50 (<10)	<100 (<20)	<1,000	<50 (<10)	1,100 DJ	<5	310 (490 D)
	6/05			**31 J**	6.1	15	5.8	15	<1,000	<1.0	5,200	<23	<3.0
	11/05			**35 J (37 J)**	11 (12)	77 (78)	26 (26)	86 (88)	<1,000 (<1,000)	<1.0 (<1.0)	37,000 (38,000)	<270 J (<260 J)	<3.0 (<3.0)
	6/06			**5.3 J (5.8 J)**	9.5 J (8.9 J)	50 J (48 J)	25 J (25 J)	66 J (63 J)	<1,000 J (<1,000 J)	<1.0 J (<1.0 J)	14,000 J (12,000 J)	<100 J (<100 J)	<3.0 J (<3.0 J)
	9/06			NA	NA	NA	NA	NA	NA	NA	1,700	<10	NA
	11/06			**31 [24]**	14 [14]	71 [71]	42 [45]	91 [110]	<500 [<500]	<1.0 [<1.0]	33,000 [33,000]	<210 [<200]	<3.0 [<3.0]
	6/07			**21**	8.4	9.5	14	24	<500	<1.0	1,100	<10	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	<10 J [4,300 J]	<1.0 [<20]	NA
	11/07			<5.0 J [<5.0]	6.6 [5.9]	**4.7 J [4.1 J]**	8.6 [7.2]	24 [21]	<500 [<500]	<1.0 [<1.0]	3,000 J [3,800 J]	<25 J [<25 J]	<3.0 [<3.0]
	3/08			**21**	9.4	23	43	68	<500	<2.0	13,000	<100	<6.0
	8/08			**3.8 J**	5	**2.2 J**	**1.8 J**	10	<500	<1.0	2,400	<25	<3.0
MW-28	9/98	363.6	355.6	<5,000 J	<5,000	<5,000	<5,000	<5,000	**2,200**	<5,000	546 D[H]	54	64,000 J
	7/99			<500 J	<500	<500	<500	<500	<1,000	<500	1,100 D	40	39,000 D
	3/00			<10,000	<10,000	<10,000	<10,000	<10,000	<1,000 J	<10,000	1,300 D	30	130,000 J
	9/00			<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	540 DJ	<10	8,100 BJ
	3/01			<400	<400	<400	<400	<400	<1,000	<400	3,200 D	7 J	5,900 B
	9/01			<400	<400	<400	<400	<400	<1,000 J	<400	1,000 D	<10	4,700 B

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Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-28 (cont'd)	4/02			<49	8	6	9	10 J	<1,000	<5	33,400 D	57	4,600 D
	10/02			**14 J**	8 J	6 J	11	12 J	<1,000	<10	2,700 D	R	<10
	5/03			**13**	4 J	2 J	2 J	8 J	<1,000	<5	1,000 DJ	3 J	52
	10/03			**24**	11	6	12	13 J	<1,000	<5	1,900 D	<5	<5
	6/04			**20 J**	4 J	**2 J**	**5 J**	**4 J**	<1,000	<10	910 D	<5	<10
	11/04			<120 (<25)	<50 (4 J)	<50 (<10)	<50 (5 J)	<100 (3 J)	**190 J**	<50 (<10)	640 DJ	<5	<50 (<10)
	6/05			**5.2 J**	4.5	**1.2 J**	**4.6**	**3.9 J**	<1,000	<1.0	630	<5.0	<3.0
	11/05			**6.8 J (7.8 J)**	6.1 (5.8)	<5.0 (<5.0)	4.7 (4.7)	<5.0 (<5.0)	<1,000 (<1,000)	<1.0 (<1.0)	380 J (350 J)	<2.2 (<2.1)	<3.0 (<3.0)
	6/06			<5.0 J (<5.0 J)	6.0 J (6.3 J)	**1.2 J (1.3 J)**	5.3 J (5.4 J)	**4.2 J (4.3 J)**	<500 J (<1,000 J)	<1.0 J (<1.0 J)	430 J (530 J)	<2.1 J (<5.0 J)	<3.0 J (<3.0 J)
	9/06			NA	NA	NA	NA	NA	NA	NA	280	<2.2	NA
	11/06			**12**	8.2	**1.4 J**	5.6	**4.4 J**	<500	<1.0	1,000	<5.2	<3.0
	6/07			**13**	4.6	**0.4 J**	0.8 J	**0.6 J**	<500	<1.0	60	<1.0	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	40	<1.0	NA
	11/07			<5.0 J	4.5	**0.5 J**	**1.4 J**	**0.8 J**	<500	<1.0	29 J	<0.5 J	<3.0
	3/08			<5.0	4.0	**0.5 J**	**1.6 J**	**1.3 J**	<500	<1.0	81	**0.9**	<3.0
	8/08			<5.0	3.8	<5.0	<4.0	<5.0	<500	<1.0	0.7 J	<0.5	<3.0
MW-29	9/98	362.9	345.9	<10	<10	<10	<10	**2 J**	<1,000	<10	<10	13	<10
	2/99			**7 J**	<10	<10	<10	**1 J**	<1,000	<10	5 J	4 J	<10
	7/99			<10	<10	<10	<10	<10	<1,000	<10	2 J	4 J	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	450 D	6 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	24 J	4 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	30	4 J	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	7 J	2 J	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	3 J	9	<6
	10/02			<25 J	<10	<10	<10	<20	<1,000	<10	8	R	**4 JN**
	5/03			<12	<5	<5	<5	<10	<1,000	<5	19	**1 J**	<3
	10/03			<12	<5	<5	<5	<10	<1,000	<5	2 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	**3 J**	<5	<10
	11/04			<120	<50	<50	<50	<100	**420 J**	<50	<5	<5	<50
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			**5.4**	<1.0	<5.0	<4.0	<5.0	<500	<1.0	**0.4 J**	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	**0.5 J**	<500	<1.0	<5.5	<1.1	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0 J	<0.5 J	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
MW-30	9/98	363.5	355.5	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	2/99			**7 J**	<10	<10	<10	<10	<1,000	<10	<10	2 J	<10
	7/99			<10	**0.7 J**	<10	<10	<10	<1,000	**0.5 J**	<10	**1 J**	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	18	2 J	**4 J**
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	9 J	2 J	**2 J**

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene^A	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-30	3/01			<10	<10	<10	<10	<10	<1,000	<10	8 J	2 J	<10
(cont'd)	9/01			4 J	2 J	<10	<10	<10	<1,000 J	<10	8 J	1 J	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	250	210	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	R	R	<10
	5/03			<62	<25	<25	<25	<50	<1,000	<25	18	0.6 J	8 J
	10/03			<12	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<120	<50	<50	<50	<100	<1,000	<50	<5	<5	<50
	6/05			<5.0 J	0.3 J	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	0.7 J	0.6 J	<4.0	0.5 J	<1,000	<1.0	240	<1.0 J	<3.0
	6/06			<5.0	0.6 J	0.4 J	<4.0	<5.0	<1,000	<1.0	29	<1.0	<3.0
	11/06			11	1.0	<5.0	<4.0	<5.0	<500	<1.0	200	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	30	<1.1	<3.0
	11/07			<5.0 J	0.8 J	<5.0	<4.0	<5.0	<500	<1.0	49	<0.5	<3.0
	3/08			<5.0	0.6 J	<5.0	<4.0	0.2 J	<500	<1.0	3.0 J	0.7	<3.0
	8/08			<5.0	0.7 J	<5.0	<4.0	<5.0	<500	<1.0	31	<0.5	<3.0
MW-31	9/98	363.7	355.4	<10	12	<10	<10	<10	<1,000	<10	34	4 J	<10
	7/99			<10	16	<10	<10	<10	<1,000	<10	230 D	3 J	<10
	3/00			<10	16	<10	<10	<10	<1,000 J	<10	3 J	4 J	<10
	9/00			<10 J	12 J	<10 J	<10 J	<10 J	<1,000	<10 J	10	6 J	<10 J
	3/01			21	11	<10	<10	<10	<1,000	<10	<10	5 J	<10
	9/01			<10	14	<10	<10	<10	<1,000 J	<10	91 D	3 J	<10
	4/02			<14	9	<5	<5	<10	<1,000	<5	804 D	21	<5
	10/02			<25	11	<10	<10	<20	<1,000	<10	560 D	1 J	<10
	5/03			<12	9	<5	<5	<10	<1,000	<5	0.9 J	3 J	<5
	10/03			1,200 D	13	<5	<5	<5	<1,000	<5	88	<5	<5
	6/04			15 J	12	<10	<10	<20	<1,000	<10	3 J	<5	<10
	11/04			<25	9 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	11	<5.0	<4.0	1.3 J	<1,000	<1.0	3.2	2.7	<3.0
	11/05			<1.3 J	6.7	<0.4	<0.5	0.6	<1,000	<0.4	16	<1.0 J	<0.5
	6/06			<5.0 J	11 J	0.6 J	<4.0 J	1.7 J	<1,000 J	<1.0 J	<1.0 J	2.4 J	<3.0 J
	9/06			NA	NA	NA	NA	NA	NA	NA	1.6	3.4	NA
	11/06			R	6.9	<5.0	<4.0	<5.0	<500	<1.0	0.4 J	1.1 J	<3.0
	6/07			<5.0	14	0.7 J	<4.0	1.3 J	<500	<1.0	<5.0	2.0	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	0.5 J	2.7	NA
	11/07			<5.0 [<5.0]	12 [10]	<5.0 [0.4 J]	<4.0 [<4.0]	1.1 J [1.4 J]	<500 J [<500 J]	<1.0 [<1.0]	<5.0 [0.3 J]	2.3 [2.8]	<3.0 [<3.0]
	3/08			<5.0 J	2.0	<5.0	<4.0	<5.0	<500	<1.0	0.2 J	1.6	<3.0
	8/08			22	13	0.4 J	<1.0	2.2 J	<500	<1.0	<5.6	2.4	<3.0
MW-32	9/98	364	356	<10	16	2 J	5 J	3 J	<1,000	<10	6,300 D	4 J	<10
	7/99			3 J	14	2 J	4 J	<10	<1,000	56	<10	3 J	<10
	3/00			<10	5 J	<10	<10	<10	<1,000 J	<10	800 D	<10	<10

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-32	9/00			<10 J	12 J	<10 J	<10 J	<10 J	<1,000	<10 J	4,500 D	<10	<10 J
(cont'd)	3/01			<10	5 J	<10	<10	<10	<1,000	<10	1,900 D	2 J	<10
	9/01			<10	10	<10	<10	<10	<1,000 J	<10	1,100 D	2 J	<10
	4/02			<15	4 J	<5	<5	<10	<1,000	<5	4,620 D	11	<5
	10/02			<25	4 J	<10	<10	<20	<1,000	<10	50	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	0.6 J	0.7 J	<5
	10/03			20	2 J	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04			6 J	1 J	<10	<10	<20	<1,000	<10	1 J	<5	<10
	11/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	1.0	<5.0	<4.0	<5.0	<1,000	<1.0	0.4 J	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	<1.0 J	<3.0 J
	11/06			R	<1.0	0.8 J	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.1 J	0.8	<3.0
	3/08			<5.0 J	0.8 J	<5.0	<4.0	<5.0	<500	<1.0	<5.0	0.8	<3.0
	8/08			5.8	0.3 J	<5.0	<4.0	<5.0	<500	<1.0	<5.7	<0.6	<3.0
MW-33	9/98	344.1	356.1	<10	<10	<10	<10	<10	<1,000	<10	9 J	6 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	120	6 J	<10
	7/99			5 J	2 J	0.7 J	<10	<10	<1,000	<10	150	8 J	<23
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	51	7 J	11
	9/00			45 J	4 J	1 J	<10 J	<10 J	<1,000	<10 J	540 D	23	330 DJ
	3/01			17 J	<20	<20	<20	<20	<1,000	<20	1,300 D	16	370 B
	9/01			21	5 J	<10	<10	<10	<1,000 J	<10	1,900 D	12	<18
	4/02			<18	3 J	<5	<5	<10	<1,000	<5	2,780 D	21	19
	10/02			11 J	4 J	<10	<10	<20	<1,000	<10	290 D	3 J	4 J
	5/03			88	13	<5	<5	<10	<1,000	<5	2,000	35 J	2,800 D
	10/03			22	2 J	<5	<5	<10	<1,000	<5	1,900 D	<6	<5
	6/04			9 J	12 J	<10 J	<10 J	<20 J	<1,000	<10 J	2,700 D	5 J	<10 J
	11/04			--	--	--	--	--	<1,000	--	2,700 D	5 J	--
	6/05			<5.0 J	11	1.0 J	<4.0	<5.0	<1,000	<1.0	1,800	<10	<3.0
	11/05			<5.0 J	16	1.8 J	<4.0	<5.0	<1,000	<1.0	3,500	<25 J	<3.0
	6/06			<5.0 J	6.7 J	0.7 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	370 J	3.5 J	<3.0 J
	9/06			NA	NA	NA	NA	NA	NA	NA	940	8.0	NA
	11/06			17 J	8.6	0.7 J	<4.0	<5.0	<500	<1.0	84	2.9 J	<3.0
	6/07			<5.0	5.7	0.4 J	<4.0	<5.0	<500	<1.0	46	2.6	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	46	4.2	NA
	11/07			<5.0	4.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.1 J	3.5	<3.0
	3/08			<5.0 J	4.1	<5.0	<4.0	<5.0	<500	<1.0	<5.0	4.1	<3.0
	8/08			<5.0	3.2	<5.0	<4.0	<5.0	<500	<1.0	<5.9	2.8	<3.0

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-34	9/98	362.7	354.7	<10	<10	<10	<10	<10	<1,000	<10	83	<10	<10
	7/99			2 J	0.9 J	1 J	<10	<10	<1,000	<10	380 D	2 J	<10
	3/00			<10 J	1 J	2 J	<10	<10	<1,000 J	<10	200 D	3 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	320 D	4 J	<10 J
	3/01			<10	<10	2 J	<10	2 J	<1,000	<10	700 D	5 J	<10
	9/01			7 J	2 J	2 J	<10	2 J	<1,000 J	<10	76	3 J	<10
	4/02			<32	<5	<5	<5	<10	<1,000	<5	640 D	15	<5
	10/02			37 J	<10	<10	<10	<20	<1,000	<10	380 DJ	2 J	<10
	5/03			16	<5	<5	<5	<10	<1,000	<5	140	3 J	<5
	10/03			9 J	<5	<5	<5	<10	<1,000	<5	18	<5	<5
	6/04			24 J	<10	<10	<10	<20	<1,000	<10	30	<5	<10
	11/04			<25	<10	<10	<10	<20	180 J	<10	14	<5	<10
	6/05			5.6 J	0.7 J	0.9 J	<4.0	1.2 J	<1,000	0.4 J	16	2.5	<3.0
	11/05			20 J	<0.3	0.9	<0.5	1.1	<1,000	<0.4	12	2 J	<0.5
	6/06			6.4	0.6 J	0.5 J	<4.0	<5.0	<1,000	<1.0	16	2.3	<3.0
	11/06			49 J	<1.0	0.6 J	<4.0	0.6 J	<500	<1.0	9.9	1.2 J	<3.0
	6/07			22	0.9 J	0.5 J	<4.0	0.6 J	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	0.8 J	0.6 J	<4.0	1.1 J	<500 J	<1.0	0.3 J	1.5	<3.0
	3/08			16	1.0 J	0.5 J	<4.0	1.1 J	<500	<1.0	24	1.3	<3.0
	8/08			12	0.8 J	0.5 J	<4.0	1.1 J	<500	<1.0	0.6 J	1.6	<3.0
MW-35	9/98	363	355	<10	<10	<10	<10	<10	<1,000	<10	6 J	5 J	<10
	7/99			<10	0.7 J	<10	<10	<10	<1,000	<10	3 J	4 J	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	3 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	4/02			<13	<5	<5	<5	<10	<1,000	<5	3 J	4 J	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	2 J	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	1,000	<100	<5
	10/03			5 J	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	30	4 J	<10
	11/04			<25	<10	<10	<10	<20	240 J	<10	82	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	0.4 J	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	1.1	<1.0 J	<3.0
	6/07			13	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			5.4	<1.0	<5.0	<4.0	<5.0	<500	<1.0	1.1 J	<0.5	<3.0
MW-36[E]	9/98	363.6	355.6	<10	<10	<10	<10	<10	<1,000	<10	290 D	6 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	860 D	4 J	<10
	7/99			8 J	0.8 J	<10	<10	<10	<1,000	<10	250	<10	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	60	7 J	<10
	9/00			5 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	8 J	6 J	<5
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			54	<10	<10	<10	<10	<1,000 J	<10	350 D	5 J	<10
	4/02			<20	<5	<5	<5	<10	<1,000	<5	9	41	<5
	10/02			12 J	<10	<10	<10	<20	<1,000	<10	2 J	2 J	<10

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-36[E]	5/03			9 J	<5	<5	<5	<10	<1,000	<5	67	4 J	<5
	10/03			580 D	<5	<5	<5	<10	<1,000	<5	100	<5	<5
	6/04			22 J	<10 J	<10 J	<10 J	<20 J	<1,000	<10 J	33	7	<10 J
	11/04			13 J	<10	<10	<10	<20	<1,000	<10	22	<5	<10
	6/05			24 J	2.1	<5.0	<4.0	1.0 J	<1,000	<1.0	1,200	<5.4	<3.0
	11/05			77 J	3.6	2.0 J	0.6 J	2.8 J	<1,000	<1.0	1,600	<10 J	<3.0
	6/06			25	1.6	0.7 J	<4.0	1.2 J	<1,000	<1.0	76	1.9	<3.0
	9/06			NA	NA	NA	NA	NA	NA	NA	3.5	1.2	NA
	11/06			130 J	3.6	1.2 J	<4.0	1.1 J	<500	<1.0	420	1.7 J	<3.0
	6/07			33	4.6	1.4 J	0.8 J	5.0	<500	<1.0	1,300	<10	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	740	<5.0	NA
	11/07			10	4.5	1.7 J	0.9 J	5.3	<500 J	<1.0	480 J	3.4 J	<3.0
	3/08			8.0 J	4.2	1.5 J	0.8 J	5.5	<500	<1.0	130	3.0	<3.0
	8/08			27	3.7	1.4 J	0.6 J	5.7	<500	<1.0	4.5 J	3.2	<3.0
TW-01	12/96	365.1	355.4	<10	82	4 J	6 J	4 J	<1,000	<10	2,090 D	13	4 J
	9/98			<10	15	<10	4 J	<10	<1,000	<10	4,400 DEJ	4 J	<10
	2/99			<10	24	2 J	2 J	2 J	<1,000	<10	9,000 D	5 J	<10
	7/99			<10	16	1 J	3 J	<10	<1,000	<10	4,400 D	4 J	<10
	3/00			<10	16	<10	<10	<10	<1,000 J	<10	280 D	4 J	<10
	9/00			<10 J	11 J	<10 J	<10 J	<10 J	<1,000	<10 J	15	2 J	<10 J
	3/01			<10	5 J	<10	<10	<10	<1,000	<10	<10	3 J	<10
	9/01			<10	10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	4/02			<14	3 J	<5	<5	<10	<1,000	<5	8	13	<5
	10/02			<25	7 J	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	7	<5	<5	<10	<1,000	<5	<5	1 J	<5
	10/03			<12	6	<5	<5	<10	<1,000	<5	0.6 J	<5	<5
	6/04			6 J	3 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<25	2 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	1.8	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<1.3 J	1.9	<0.4	<0.5	<0.4	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0 J	1 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	0.8 J	<3.0 J
	11/06			R	0.7 J	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			7.8	0.5 J	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.2 J	1.1	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	1.0	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
TW-02[C] (Replaced by TW-02R)[E]	12/96	363.3	353.3	53	10	77	16	65	<1,000	585 D	15,900 JD	3,920 D	42,449 D
	9/98			<500 J	<500 J	<500 J	<500 J	53,000	5,000	300 J	38,000 D	61,000 D	86,000 D
	2/99			<1,000	<1,000	190 J	<1,000	150 J	14,000JN	<1,000	83,000 D	7,900	14,000 B
	7/99			630	37	240 J	31	150	<1,000	55	100,000 D	3,500 J	9,700 D
	3/00			<1,000 J	<1,000	160 J	<1,000	240 J	<1,000 J	<1,000	64,000 D	3,900	13,000
	9/00			190 J	28 J	95 J	35 J	160 J	<1,000	6 J	79,000	<10,000	390 J
	3/01			81	19	68	28	130	<1,000	<10	67,000 D	650 J	400 D
	9/01			57	25	70	31	140	<1,000 J	<20	63,000 D	32	48 B
	4/02			240	19	65	23	96	<1,000	<5	1,090,000 D	<5,300	14
	10/02			110 J	15	19	23	65	<1,000	<10	80,000 D	10 J	<10
	5/03			240	30	130	49	226	<1,000	<5	160,000 D	230	97
	10/03			68	28	75 J	<5	<10	<1,000	2 J	92,000 D	<260	91
	6/04			140 J	19 J	39 J	31 J	111 J	<1,000	<10 J	82,000	<5,200	4 J

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
2012 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
TW-02RR[BE]	11/04	363.3	353.3	18 J	4 J	8 J	4 J	16 J	<1,000	<10	7,100 D	<5	<10
	6/05			7.2 J	3.6	2.1 J	3.6 J	9.6	<1,000	0.3 J	8,400	<50	<3.0
	11/05			26 J	6	4.1	3.6	11	<1,000	<0.4	14,000	<110 J	<0.5
	6/06			16	4.4	1.3 J	2.7 J	6.7	<1,000	<1.0	10,000	<100	<3.0
	9/06			NA	NA	NA	NA	NA	NA	NA	7,600	<52	NA
	11/06			78 J	4.9	1.4 J	2.2 J	6.2	<500	<1.0	2,100	<10 J	<3.0
	6/07			17	5.5	1.3 J	4.0	8.8	<500	<1.0	6,800	<100	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	4,000 J	<20	NA
	11/07			5.5	5.8	1.2 J	3.0 J	7.6	<500 J	<1.0	3,700	<25	<3.0
	3/08			6.4 [5.2]	4.5 J [2.3 J]	1.3 J [0.7 J]	3.8 J [1.9 J]	10 [4.8 J]	<500 [<500]	<1.0 [<1.0]	7,500 [5,400]	<50 [<50]	<3.0 [<3.0]
	8/08			9.0 [9.6]	4.4 [4.6]	1.0 J [1.1 J]	2.3 J [2.4 J]	6.7 [7.0]	<500 [<500]	<1.0 [<1.0]	9,600 [7,000]	<71 [<56]	<3.0 [<3.0]
PZ-4D	11/89	350.8	345.9	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	0.8 J	<5
	10/95			NA	<5	<5	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<6	<12	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0	<1.0	0.5 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.5	<1.1	<3
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
PZ-4S	11/89	362.79	357.88	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<18
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<10 J	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	3 J	<10
	4/02			<14	<5	<5	<5	<10	<1,000	<5	8 (<5)[F]	<5 (<5)[F]	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0	<1.0	0.6 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.5	<1.1	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
PZ-5D[L]	11/89	353.5	348.6	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<12
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	46	<5	<5
	6/04[J]			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	0.7 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.1	<0.5	<3.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
PZ-5S[KL]	11/89	361.42	356.52	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			5 J	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<12
	6/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			7 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.3	<0.5	<3.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
PZ-8S[I]	9/98	362.6	357.7	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
PZ-11D[D]	11/89	352.09	347.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-11S[D]	11/89	359.09	354.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-12D[D]	11/89	350	345.1	<100	<1	<1	<1	<1	<1,000	<1	<53	<53	<1
	11/90			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<1	3	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
PZ-12S[D]	11/89	360	355.1	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	6	<1	<10	<10	5
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
PZ-13D[C]	11/89	349.4	344.4	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-13S[C]	11/89	359.5	354.5	<100	<1	2	<1	2	<1,000	<1	<11	<11	<1

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General Notes:

1. Concentrations are presented in micrograms per liter, which is equivalent to parts per billion.
2. Compounds detected are indicated by bold-faced type.
3. Detections exceeding New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards (Part 700) are indicated by shading.
4. Replacement wells for MW-6, MW-8, MW-9, MW-10, MW-11 and MW-12D were installed 8/95.
5. Replacement wells for MW-17, MW-24S, MW-24D and TW-02 were installed 11/97 - 12/97.
6. The laboratory analytical results for the duplicate sample collected from monitoring well MW-23S during the 7/99 sampling event indicated the presence of methanol at 5.1 milligrams per liter. Because methanol was not detected in the original sample, the duplicate results were determined, based on the results of the data validation process, to be unacceptable. Furthermore, methanol has not been previously detected in groundwater samples collected from this monitoring well. Accordingly, the detection of methanol appears to be the result of a laboratory error and not representative of actual groundwater quality in the vicinity of monitoring well MW-23S.
7. N,N-dimethylaniline data for 10/02 sampling event for MW-1, MW-3S, MW-28, MW-29, MW-32, MW-35 and TW-01 were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. Aniline and N,N-dimethylaniline data for 10/02 sampling event for MW-30 were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. These wells and piezometers are not perimeter monitoring locations and were not resampled.
8. Aniline and N,N-dimethylaniline results of nondetect for the 6/04 sampling event at MW-18 were rejected due to the deviation from a surrogate recovery that was below 10%. This well was not resampled.
9. Volatile organic compound (VOC) results for the 11/04 sampling event were inadvertently lost due to laboratory equipment failure for monitoring locations MW-1, MW-17R, MW-18, MW-23I, MW-23S, MW-24DR, MW-24SR, MW-25, MW-33, PZ-5D and PZ-5S. In addition, the initial VOC results were also irretrievable due to laboratory equipment failure for monitoring locations MW-27, MW-28, MW-29 and MW-30; however, results for subsequent dilutions of these groundwater samples were valid, but the detection limits were high. The duplicate sample VOC results for MW-27 and MW-28 have lower detection limits and are presented in parentheses. These wells were not resampled.

Superscript Notes:

[A] = Data presented is total xylenes (m- and p-xylenes and o-xylenes). For the 1995 data, the listed quantitation limit applies to the analyses conducted for m- and p-xylenes and o-xylenes.

[B] = Because aniline was detected at monitoring well MW-3S at a concentration of 690 ug/l during the September 2001 sampling event, this well was resampled for aniline on November 8, 2001. Aniline was detected in MW-3S during the November 8, 2001 resampling event at a concentration of 69 ug/l.

[C] = Wells/piezometers MW-5, MW-14D, MW-16D, MW-17, MW-20, MW-21, MW-24S, MW-24D, TW-02, PZ-13S, and PZ-13D were abandoned 11/97 - 1/98.

[D] = Wells/piezometers MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12D, PZ-11D, PZ-11S, PZ-12D, and PZ-12S were abandoned during OU No.1 soil remediation activities (1994).

[E] = Wells MW-8S, MW-8D, and TW-02R were abandoned in 8/04 and replacement wells MW-8SR and TW-02RR were installed in 8/04.

[F] = MW-17R, MW-18, and PZ-4S wells/piezometers were resampled for aniline and N,N-dimethylaniline on June 18, 2002 because N,N-dimethylaniline and/or aniline was detected during the April 2002 sampling event. The results of this additional sampling event are shown in parenthesis. MW-24SR and MW-24DR were also sampled for aniline and N,N-dimethylaniline on June 18, 2002, because N,N-dimethylaniline and/or aniline was detected at nearby perimeter monitoring locations during the April 2002 sampling event.

[G] = MW-17R, MW-18, MW-19, MW-23S, MW-23I, MW-24DR, MW-24SR, MW-25S, PZ-4S, PZ-5S and PZ-5D wells/peizometers were resampled for aniline and N,N-dimethylaniline during 1/03, because the 10/02 results were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. These wells and piezometers are perimeter monitoring locations.

[H] = MW-18, MW-19, MW-23I, MW-23S, MW24DR, MW-24SR, MW-28, PZ-5S and PZ-5D wells/piezometers were resampled for aniline during 12/98, because the 9/98 results were rejected due to laboratory error.

[I] = Piezometer PZ-8S was decommissioned 8/00.

[J] = MW-24SR and PZ-5D well and piezometer were sampled during the June 2004 sampling event because N,N-dimethylaniline and/or aniline was detected at nearby perimeter monitoring locations during the October 2003 sampling event.

[K] = Wells/piezometers MW-1, MW-19, and PZ-5S were abandoned 11/10.

[L] = Wells/piezometers, MW-22, MW-24S, MW-24D, MW-25S, MW-25D, PZ-5S and PZ-5D were eliminated from the groundwater monitoring program after the 10/10 sampling event; therefore all data for these locations are presented in this table.

Abbreviations:

AMSL = Above mean sea level (NGVD of 1929).
NA = Parameter not analyzed for.
ND = Not detected.
NS = Standard not available.

Analytical Qualifiers:

D = Indicates the presence of a compound in a secondary dilution analysis.
J = The compound was positively identified; however, the numerical value is an estimated concentration only.
E = The compound was quantitated above the calibration range.
JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
B = The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
< = Compound was not detected at the listed quantitation limit.
U = Undetected.
R = The sample results were rejected.
-- = Sample results are not available. (See Note 9.)

MW-35									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<10	0.7 J	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6 J	3 J	<10	<10	<10	<10	3 J	2 J	1,000
N,N-dimethylaniline	5 J	4 J	2 J	3 J	<10	2 J	4 J	R	<100
Acetone	<10	<10	<10 J	<10 J	<10	<10	<13	<25	<12

TW-02R											
Date	12/96	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	53	<500 J	<1,000	630	<1,000 J	190 J	81	57	240	110 J	240
Benzene	10	<500 J	<1,000	37	<1,000	28 J	19	25	19	15	30
Toluene	77	<500 J	190 J	240 J	180 J	95 J	68	70	65	19	130
Ethylbenzene	16	<500 J	<1,000	31	<1,000	35 J	28	31	23	23	49
Xylene	65	140 J	150 J	150	240 J	160 J	130	140	96	65	226
Methanol	<1,000	5,000	14,000 JN	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000
Trichloroethene	585 D	300 J	<1,000	55	<1,000	6 J	<10	<20	<5	<10	<5
Aniline	15,900 JD	38,000 D	83,000 D	100,000 D	64,000 D	79,000	67,000 D	63,000 D	1,090,000 D	80,000 D	160,000 D
N,N-dimethylaniline	3,920 D	61,000 D	7,900	3,500 J	3,900	<10,000	650 J	32	<5,300	10 J	230
Methylene Chloride	42,449 D	86,000 D	14,000 B	9,700 D	13,000	390 J	400 D	48 B	14	<10	97

MW-34									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	2 J	<10 J	<10 J	<10	7 J	<32	37 J	16
Benzene	<10	0.9 J	1 J	<10 J	<10	2 J	<5	<10	<5
Toluene	<10	1 J	2 J	<10 J	2 J	2 J	<5	<10	<5
Xylene	<10	<10	<10	<10 J	2 J	2 J	<10	<20	<10
Aniline	83	380 D	200 D	320 D	700 D	76	640 D	380 DJ	140
N,N-dimethylaniline	<10	2 J	3 J	4 J	5 J	3 J	15	2 J	3 J

TW-01											
Date	12/96	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	82	15	24	16	16	11 J	5 J	10	3 J	7 J	7
Toluene	4 J	<10	2 J	1 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	6 J	4 J	2 J	3 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	4 J	<10	2 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Aniline	2,090 D	4,400 DEJ	9,000 D	4,400 D	280 D	15	<10	<10	8	<5	<5
N,N-dimethylaniline	13	4 J	5 J	4 J	4 J	2 J	3 J	2 J	13	R	1 J
Methylene Chloride	4 J	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Acetone	<10	<10	<10	<10	<10	<10 J	<10	<10	<14	<25	<12

MW-31									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	<10	<10 J	21	<10	<14	<25	<12
Benzene	12	16	16	12 J	11	14	9	11	9
Aniline	34	230 D	3 J	10	<10	91 D	804 D	560 D	0.9 J
N,N-dimethylaniline	4 J	3 J	4 J	6 J	5 J	3 J	21	1 J	3 J

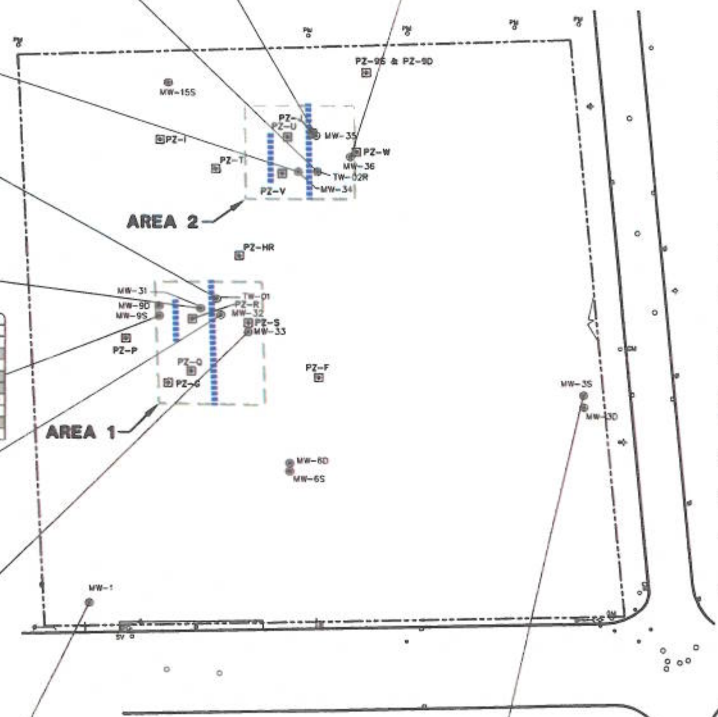
MW-9S												
Date	1/89	11/89	11/91	8/95	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	1,600	<1,000	<100	<1,000	<10	<10	<10 J	<10	<10	<23	16 J	<12
Benzene	NA	48	<10	11 JD	4 J	2 J	11 J	1 J	10	10	39	11
Toluene	64	25	9	26 JD	2 J	2 J	2 J	3 J	3 J	2 J	40	<5
Ethylbenzene	130	60	19	69 D	9 J	11	6 J	17	7 J	6	2 J	7
Xylene	270	60	30	226 JD	18	21	18 J	61	35	17 J	15 J	18
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Aniline	660	670	95	50	<10	2 J	1 J	2 J	<10	9	<5	0.9 J
N,N-dimethylaniline	1,200	150	18	28	5 J	9 J	6 J	11	10	43	2 J	3 J
Methylene Chloride	1,500	<10	<1	110 D	<10	<10	<10 J	<10	<10	<5	<10	<5

MW-32									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	3 J	<10	<10 J	<10	<10	<15	<25	<12
Benzene	16	14	5 J	12 J	5 J	10	4 J	4 J	<5
Toluene	2 J	2 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	5 J	4 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	3 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Trichloroethene	<10	56	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6,300 D	<10	800 D	4,500 D	1,900 D	1,100 D	4,620 D	50	0.6 J
N,N-dimethylaniline	4 J	3 J	<10	<10	2 J	2 J	11	R	0.7 J

MW-33										
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	5 J	<10 J	45 J	17 J	21	<18	11 J	88
Benzene	<10	<10	2 J	<10	4 J	<20	5 J	3 J	4 J	13
Toluene	<10	<10	0.7 J	<10	1 J	<20	<10	<5	<10	<5
Aniline	9 J	120	150	58	540 D	1,300 D	1,800 D	2,780 D	290 D	2,000
N,N-dimethylaniline	6 J	6 J	8 J	7 J	23	16	12	21	3 J	35 J
Methylene Chloride	<10	<10	5 J	11	330 DJ	370 B	<18	19	4 J	2,800 D

MW-1															
Date	3/88	1/89	11/89	11/90	11/91	11/92	8/95	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<100	<100	<100	<100	<100	<1,000	<10	0.7 JN	<10	8 J	<10	<10	<12	<25	<12
Toluene	<1	<1	<1	<1	<1	<1	<5	<10	<10	<10	3 J	<10	<10	<5	<10	<5
Xylene	<1	<1	<1	<3	<3	<3	<5	<10	<10	<10	5 J	<10	<10	<10	<20	<10
Methylene Chloride	<1	<1	<1	<1	<1	<1	<10	<10	<10	<10	<10 J	10	<10	<5	<10	<5
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	990 J	<1,000	<1,000
Aniline	<10	<11	<10	<10	<10	<10	<5	<10	<10	<5	<10 J	<10	<10	<5	<5	<5

MW-36										
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	8 J	<10 J	5 J	<10	54	<20	12 J	9 J
Benzene	<10	<10	0.8 J	<10	<10 J	<10	<10	<5	<10	<5
Aniline	290 D	860 D	250	60	8 J	<10	350 D	9	2 J	67
N,N-dimethylaniline	6 J	4 J	<10	7 J	6 J	<10	5 J	41	2 J	4 J
Methylene Chloride	<10	<10	<10	<10	2 J	<10	<10	<5	<10	<5



MW-3S														
Date	3/88	1/89	11/89	11/91	8/95	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<10,000	<10,000	2,900	<1,000	<10	<10	<10 J	<10 J	<10	<10	<12	<25	<12
Benzene	<1	<100	<100	10	<5	<10	1 J	<10	1 J	<10	3 J	<5	<10	<5
Toluene	<1	120	<100	10	<5	<10	0.7 J	<10	2 J	<10	8 J	<5	<10	<5
Ethylbenzene	<1	<100	<100	4	<5	<10	<10	<10	<10 J	<10	1 J	<5	<10	<5
Xylene	<1	<100	<100	31	<5	<10	<10	<10	<10 J	<10	2 J	<10	<20	<10
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Trichloroethene	50	1,100	100	<10	<5	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Aniline	<10	<11	<52	790	15	<10	9 J	<10	2 J	<10	690 D (69*)	1.7 J	<5	<5
N,N-dimethylaniline	<10	5,570	440	170	2 J	<10	<10	<10	1 J	<10	4 J	<5	R	<5
Methylene Chloride	110	4,700	2,700	<10	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PM — PETROLEUM PIPE LINE MARKER
- GM — GAS LINE MARKER
- SV — SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 — GROUNDWATER MONITORING WELL
- PZ-A — PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH

SAMPLE IDENTIFICATION

MW-35									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<10	0.7 J	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6 J	3 J	<10	<10	<10	<10	3 J	2 J	1,000
N,N-dimethylaniline	5 J	4 J	2 J	3 J	<10	2 J	4 J	R	<100
Acetone	<10	<10	<10 J	<10 J	<10	<10	<13	<25	<12

CONCENTRATION (ppb)

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY DETECTED COCs ARE PRESENTED ON THIS FIGURE.
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. E = IDENTIFIES COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE INSTRUMENTS.
10. R = THE SAMPLE RESULT WAS REJECTED.
11. B = THE COMPOUND HAS BEEN FOUND IN THE SAMPLE AS WELL AS IN ITS ASSOCIATED BLANK; ITS PRESENCE IN THE SAMPLE MAY BE SUSPECT.
12. N = THIS ANALYSIS INDICATES THE PRESENCE OF A COMPOUND FOR WHICH THERE IS PRESUMPTIVE EVIDENCE TO MAKE AN TENTATIVE IDENTIFICATION.
13. DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.
14. *= MW-3S WAS RESAMPLED ON 11/8/01 DUE TO ANILINE DETECTION DURING 9/2001 SAMPLING EVENT AT A CONCENTRATION OF 690 PPB. ANILINE WAS DETECTED ON 11/8/01 AT A CONCENTRATION OF 69 PPB.
15. THE 10/02 SAMPLING EVENT N,N-DIMETHYLANILINE DATA FOR MW-1, MW-3S, MW-32, MW-35, AND TW-01 WERE REJECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES BELOW CONTROL LIMITS. THESE MONITORING WELLS WERE NOT RESAMPLED.

0 100' 200'

GRAPHIC SCALE

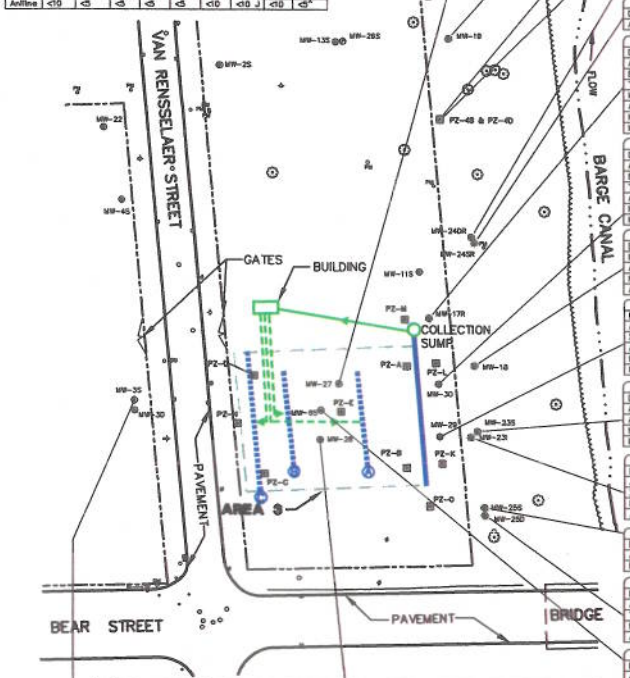
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREAS 1 & 2

ARCADIS

FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: ENV/141 DB: N.SMITH/GALL K.SARTORI LD: PIC: PM: B. BYRNES TM: LYR:ON=*;OFF=*REF (AREA-HIGHER LAYOUT: 1 SAVED: 8/4/2011 2:20 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/4/2011 2:52 PM BY: JONES, WENDY
XREFS: 28003X01 28003X0BL IMAGES: PROJECTNAME: —



MW-27									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	23	<10 J	<10 J	<10 J	<10	<10	<18	9 J	<12
Benzene	3 J	4 J	6 J	4 J	3 J	5 J	7	3 J	8
Toluene	4 J	2 J	<10	<10	<10	<10	11	<10	11
Ethylbenzene	<10	3 J	8 J	3 J	5 J	2 J	12	<10	23
Xylene	3 J	8 J	2 J	1 J	2 J	<10	26	<20	51
Aniline	340 DJ	740 D	110 D	16 J	260 D	26	176,000 DJ	2,700 D	15,000 DJ
N,N-dimethylaniline	<10	<10	1 J	3 J	2 J	<10	19 J	100 J	11
Methylene Chloride	<10	<10	<10	1 J	<10	<10	<5	50 JN	43
Trichloroethene	<10	<10	<10 J	<10 J	<10	<10	<5	4 J	<5

PZ-5S										
Date	11/89	12/94	2/96	2/97	9/98	6/99	7/99	9/00	9/01	10/02
Acetone	<100	<10	<1,000	5 J	<10	<10 J	<10 J	<10 J	7 J	<25 J^

PZ-5D									
Date	11/89	12/94	2/98	2/97	9/98	7/99	9/00	9/01	10/02
Aniline	<10	<5	<5	<5	<5	<10	<10 J	<10	<5^

MW-19																	
Date	11/89	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	<10	5 J	<10	<10	<10	<10	<10	<10	<5	<5^	<5
Acetone	<100	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10 J	<10 J	<10	<10	<10	<25 J	<12
Aniline	<10	<5	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10 J	<10	<10	<5	<5^	<5

PZ-4S														
Date	11/89	11/90	11/91	11/92	8/95	8/96	8/97	2/99	6/99	3/00	3/01	4/02	10/02	5/03
Aniline	<10	<10	<10	<10	<5	<5	<5	<10	<5	<10	<10	8 (<5)**	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	3 J	<5 (<5)**	<5^	<5

PZ-4D														
Date	11/89	11/90	11/91	11/92	8/95	10/95	8/96	8/97	2/99	3/00	9/00	3/01	4/02	5/03
N,N-dimethylaniline	<10	<10	<10	<10	0.8 J	<10	<10	<12	<10	<10	<10	<10	<5	<5

MW-24DR										
Date	12/94	8/95	2/96	2/97	9/98	7/99	9/00	9/01	6/02	10/02
Aniline	<5	<5	<5	<5	<5	<10	<10 J	<10	ND**	<5^

MW-24SR											
Date	12/94	8/95	2/96	2/97	9/98	6/99	7/99	3/00	9/01	6/02	10/02
Aniline	<5	<5	<5	<5	<5	<10 J	<10	<10 J	<10	ND**	<5^

MW-17R															
Date	11/90	11/91	11/92	8/95	10/95	8/96	8/97	2/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<100	<100	<1,000	NA	11	<10	<10	<10	<10 J	<10	<10	<10	<25 J	<12
Benzene	<1	<1	<1	<5	<5	<10	<10	1 J	8 J	15 J	8 J	5 J	6	14	8
Trichloroethene	<1	<1	<1	<5	2J	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Methanol	<1,000	<1,000	<1,000	<1,000	NA	1,000	1,000	1,000	<1,000 J	<1,000 J	<1,000	<1,000	620 J	<1,000	<1,000
Aniline	<10	<10	<10	<5	NA	<5	<5	<10	<5	24 J	<10	<10	150 (<5)**	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	NA	<10	<10	<10	<10	4 J	<10	<10	110 (<5)**	<5^	<5
Methylene Chloride	<1	<1	<1	<11	<5	<10	<10	<10 J	<10	1 J	<10	<10	<5	<10	<5

MW-30										
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	7 J	<10	<10	<10 J	<10	4 J	<10	<25 J	<62
Benzene	<10	<10	0.7 J	<10	<10 J	<10	2 J	<5	<10	<25
Trichloroethene	<10	<10	0.5 J	<10	<10 J	<10	<10	<5	<10	<25
Aniline	<10	<10	<10	18	9 J	8 J	8 J	250	R	18
N,N-dimethylaniline	<10	2 J	1 J	2 J	2 J	2 J	1 J	210	R	0.6 J
Methylene Chloride	<10	<10	<10	4 J	2 J	<10	<10	<5	<10	8 J

MW-1R																				
Date	11/89	11/90	11/91	11/92	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Methanol	<1,000	<1,000	<1,000	<1,000	<200	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000 J	<1,000	<1,000	720 J	<1,000	280 J
Aniline	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10 J	<10	<10	280 D (<5)**	<5^	<5
N,N-Dimethylaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	200 D (<5)**	<5^	<5
Acetone	<100	<100	<100	<100	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<10	<10	8 J	<12

MW-29										
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	7 J	<10	<10	<10 J	<10	<10	<10	<25 J	<12
Xylene	2 J	1 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Aniline	<10	5 J	2 J	450 D	24 J	30	7 J	3 J	8	19
N,N-dimethylaniline	13	4 J	4 J	6 J	4 J	4 J	2 J	9	R	1 J
Methylene Chloride	<10	<10	<10	<10	<10 J	<10	<10	<5	4 JN	<5

MW-23S																	
Date	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	6/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<1,000	<1,000	<10	<10	12	<10	<10	<10 J	<10 J	<10	<10 J	<10	<10	<10	<25 J	<62
Aniline	<5	<5	<5	<5	11	92	56	<10	<10 J	<10	<5	<10 J	<10	<10	<5	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	<10	<10	2 J	2 J	<10	2 J	<10	<10	<5	<5^	<5
Methanol	<200	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000 J	<1,000 J	<1,000	<1,000	<1,000	<1,000	380 J

MW-23I																
Date	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10 J	<10 J	<10	4 J	<10	<25 J	<12
Xylene	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	2 J	<10	<20 J	<5
Methylene Chloride	<5	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<10	2 J	<10	<5
Aniline	<5	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10 J	<10	<10	<5	<5^	<5

MW-25S														
Date	8/95	10/95	8/96	8/97	2/99	6/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Aniline	<5	<5	<5	<5	130	110 J	5 J	<10	<10 J	<10	<10	<5	<5^	<5
N,N-dimethylaniline	0.7 J	<10	<10	<10	<10	21 J	<10	<10	<10	<10	<10	<5	<5^	<5

MW-25D											
Date	8/95	10/95	8/96	8/97	2/99	6/99	3/00	9/00	3/01	4/02	5/03
Acetone	<1,000	NA	15	<10	<10	<10	<10	<10	<10	<10	<12
Trichloroethene	<5	3 J	<10	<10	<10	<10	<10	<10	<10	<5	<5
N,N-dimethylaniline	1 J	<10	<10	<11	<10	<10	<10	<10	<10	<5	<5
Aniline	<5	<5	<5	<5	<5	<5	<10	<5	5 J	<5	<5

MW-8S														
Date	1/89	11/89	11/91	8/95	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<1,000,000	470,000	<1,000,000	<1,000	<10,000 J	<20,000	10 J	<100,000	<50,000 J	<50,000	<400	<400	120 J	<12
Benzene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	22 J	<100,000	<50,000 J	<50,000	<400	2,100	33	20 J
Toluene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	240 J	<100,000	<50,000 J	<50,000	430	410	310	600 D
Ethylbenzene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	38 J	<100,000	<50,000 J	<50,000	170 J	100 J	73	81
Xylene	<10,000	<10,000	<30,000	<250,000 D	<10,000	<20,000	220 J	<100,000	<50,000 J	<50,000	880	330 J	257	300
Methanol	430,000	300,000	150,000	22,000	7,900	16,000 JN	17,000	30,000 J	14,000 J	53,000	5,900 J	<1,000	<1,000	<1,000
Trichloroethene	<10,000	<10,000	<10,000	60,000 JD	3,300 J	11,000 J	11,000 J	<100,000	3,300 J	11,000 J	16,000 JD	6,800 J	3,100	6,700 D
Aniline	2,900	8,500	6,000	<25,000 D	1,300 J	30,000 D	24,000	62,000	42,000 J	90,000 D	21,000	793,000 D	60,000 D	79,000 D
N,N-dimethylaniline	24,000	52,000	33,000	380,000 D	26,000 D	120,000 D	77,000	270,000 D	98,000	130,000 D	29,000	773,000 D	21,000 J	29 J
Methylene Chloride	3,300,000	1,800,000	1,600,000	7,700,000 D	140,000	650,000 DE	450,000 D	1,300,000	540,000 BJ	990,000	440,000 BD	860,000 D	320,000	610,000 D

MW-28									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<5,000	<500	<10,000	<1,000 J	<400	<400	8	8 J	4 J
Toluene	<5,000	<500	<10,000	<1,000 J	<400	<400	6	6 J	2 J
Ethylbenzene	<5,000	<500	<10,000	<1,000 J	<400	<400	5	11	2 J
Xylene	<5,000	<500	<10,000	<1,000 J	<400	<400	10 J	12 J	8 J
Methanol	2,200	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000	<1,000	<1,000
Aniline	546 D	1,100 D	1,300 D	540 DJ	3,200 D	1,000 D	33,400 D	2,700 D	1,000 DJ
N,N-dimethylaniline	34	40	30	<10	7 J	<10	57	R	3 J
Methylene Chloride	64,000 J	38,000 D	130,000 J	6,100 DJ	1,900 D	4,700 D	4,800 D	<10	52
Acetone	<5,000 J	<500 J	<10,000	<1,000 J	<400	<400	<49	14 J	13

MW-3S														
Date	3/88	1/89	11/89	11/91	8/95	8/96	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<10,000	<10,000	2,900	<1,000	<10	<10	<10	<10 J	<10	<10	<12	<25	<12
Benzene	<1	<100	<100	10	<5	<10	1 J	<10	1 J	<10	<10	<5	<10	<5
Toluene	<1	120	<100	10	<5	<10	0.7 J	<10	2 J	<10	3 J	<5	<10	<5
Ethylbenzene	<1	<100	<100	4	<5	<10	<10	<10	<10 J	<10	1 J	<5	<10	<5
Xylene	<1	<100	<100	31	<5	<10	<10	<10	<10 J	<10	2 J	<10	<20	<10
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Trichloroethene	50	1,100	100	<10	<5	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Aniline	<10	<1	<52	790	15	<10	9 J	<10	2 J	<10	690 D (69*)	1.7 J	<5	<5
N,N-dimethylaniline	<10	5,570	440	170	2 J	<10	<10	<10	1 J	<10	4 J	<5	R	<5
Methylene Chloride	110	4,700	2,700	<10	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH
- PIPING TO BUILDING
- PIPING FROM BUILDING

SAMPLE IDENTIFICATION

MW-25		
Date	8/95	10/95
Acetone	<1,000	NA
Trichloroethene	<5	3 J
N,N-dimethylaniline	1 J	<10
Aniline	<5	<5

CONCENTRATION (ppb)

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY DETECTED COCs ARE PRESENTED ON THIS FIGURE.
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. E = IDENTIFIES COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE INSTRUMENTS.
10. B = THE COMPOUND HAS BEEN FOUND IN THE SAMPLE AS WELL AS IN ITS ASSOCIATED BLANK; ITS PRESENCE IN THE SAMPLE MAY BE SUSPECT.
11. N = THIS ANALYSIS INDICATES THE PRESENCE OF A COMPOUND FOR WHICH THERE IS PRESUMPTIVE EVIDENCE TO MAKE AN TENTATIVE IDENTIFICATION.
12. R = THE SAMPLE RESULT WAS REJECTED.
13. DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.
14. THE ANILINE DATA FOR THE 9/98 SAMPLING EVENT FOR MW-18, MW-19, MW-23S, MW-23I, MW-24SR, MW-24DR, MW-28, PZ-5S AND PZ-5D WERE OBTAINED IN 12/98, BECAUSE THE 9/98 RESULTS WERE REJECTED DUE TO LABORATORY ERROR.
15. * = MW-3S WAS RESAMPLED ON 11/8/01 DUE TO ANILINE DETECTION DURING 9/2001 SAMPLING EVENT AT A CONCENTRATION OF 690 PPB. ANILINE WAS DETECTED ON 11/8/01 AT A CONCENTRATION OF 69 PPB.
16. ** = MONITORING WELLS MW-17R, MW-18, AND PZ-4S WERE RESAMPLED FOR ANILINE AND N,N-DIMETHYLANILINE ON JUNE 18, 2002 DUE TO N,N-DIMETHYLANILINE AND/ OR ANILINE DETECTION AT THESE PERIMETER MONITORING LOCATIONS DURING THE APRIL 2002 SAMPLING EVENT. THE RESULTS OF THIS RESAMPLING EVENT ARE SHOWN IN PARENTHESIS. MONITORING WELLS MW-24SR AND MW-24DR WERE ALSO SAMPLED ON JUNE 18, 2002 FOR ANALYSIS OF ANILINE AND N,N-DIMETHYLANILINE. THESE COMPOUNDS WERE NOT DETECTED.
17. ^ = THE ANILINE AND N,N-DIMETHYLANILINE DATA FOR THE 10/02 SAMPLING EVENT FOR MW-17R, MW-18, MW-19, MW-23S, MW-23I, MW-24SR, MW-24DR, MW-25S, PZ-4S, PZ-5S, AND PZ-5D WERE OBTAINED IN 1/03, BECAUSE THE 10/02 RESULTS WERE REJECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES BELOW CONTROL LIMITS.
18. THE 10/02 SAMPLING EVENT N,N-DIMETHYLANILINE DATA FOR MW-3S, MW-28 AND MW-29 AND THE 10/02 SAMPLING EVENT ANILINE AND N,N-DIMETHYLANILINE DATA FOR MW-30 WERE REJECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES BELOW CONTROL LIMITS. THESE MONITORING WELLS WERE NOT RESAMPLED.

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GRAPHIC SCALE

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PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREA 3

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FIGURE 2

TW-02R		
Date	10/03	6/04
Acetone	68	140 J
Benzene	28	19 J
Toluene	75 J	39 J
Ethylbenzene	<5	31 J
Xylene	<10	111 J
Methanol	<1,000	<1,000
Trichloroethene	2 J	<10 J
Aniline	92,000 D	82,000
N,N-dimethylaniline	<260	<5,200
Methylene Chloride	91	4 J

TW-02RR				
Date	11/04	6/05	11/05	6/06
Acetone	18 J	7.2 J	26 J	16
Benzene	4 J	3.8	6	4.4
Toluene	6 J	2.1 J	4.1	1.3 J
Ethylbenzene	4 J	3.6 J	3.6	2.7 J
Xylene	16 J	9.6	11	6.7
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<10	0.3 J	<0.4	<1.0
Aniline	7,100 D	8,400	14,000	10,000
N,N-dimethylaniline	<5.0	<50	<110 J	<100
Methylene Chloride	<10	<3.0	<0.5	<3.0

MW-35						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	5 J	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1000	<1000	240 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	4 J	30	82	<1.0	<1.0	0.4 J
N,N-dimethylaniline	<5.0	4 J	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

MW-36						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	580 D	22 J	13 J	24 J	77 J	25
Benzene	<5.0	<10 J	<10	2.1	3.6	1.6
Toluene	<5.0	<10 J	<10	<5.0	2.0 J	0.7 J
Ethylbenzene	<5.0	<10 J	<10	<4.0	0.6 J	<4.0
Xylene	<10	<20 J	<20	1.0 J	2.8 J	1.2 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10 J	<10	<1.0	<1.0	<1.0
Aniline	300	33	22	1,200	1,600	78
N,N-dimethylaniline	<5.0	7	<5.0	<5.4	<10 J	1.9
Methylene Chloride	<5.0	<10 J	<10	<3.0	<3.0	<3.0

MW-34						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	9 J	24 J	<25	5.6 J	20 J	6.4
Benzene	<5.0	<10	<10	0.7 J	<0.3	0.6 J
Toluene	<5.0	<10	<10	0.9 J	0.9	0.5 J
Ethylbenzene	<5	<10	<10	<4.0	<0.5	<4.0
Xylene	<10	<20	<20	1.2 J	1.1	<5.0
Methanol	<1000	<1000	180 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	0.4 J	<0.4	<1.0
Aniline	18	30	14	16	12	16
N,N-dimethylaniline	<5.0	<5.0	<5.0	2.5	2 J	2.3
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0

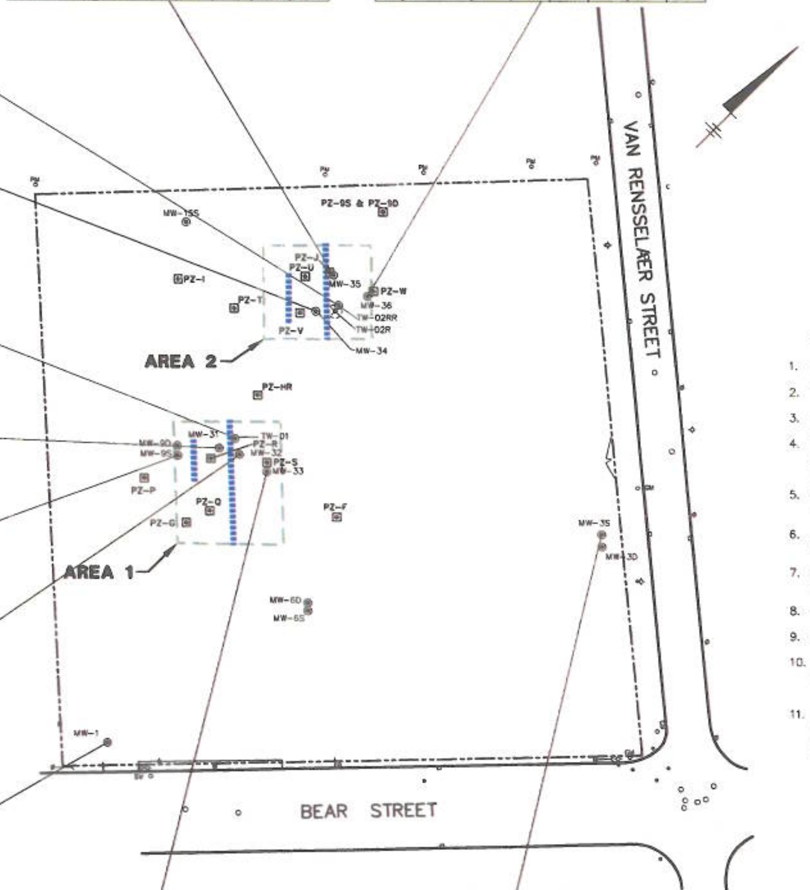
TW-01						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	6 J	<25	<5.0 J	<1.3 J	<5.0 J
Benzene	6	3 J	2 J	1.8	1.9	1 J
Toluene	<5.0	<10	<10	<5.0	<0.4	<5.0 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<10	<20	<20	<5.0	<0.4	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	0.6 J	<5.0	<5.0	<1.0	<1.0	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	0.8 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0 J

MW-31						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	1,200 D	15 J	<25	<5.0 J	<1.3 J	<5.0 J
Benzene	13	12	9 J	11	6.7	11 J
Toluene	<5.0	<10	<10	<5.0	<0.4	0.6 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<5.0	<20	<20	1.3 J	0.6	1.7 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	88	3 J	<5.0	3.2	16	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	2.7	<1.0 J	2.4 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	3.4

MW-9S						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	14 J	<25	44 J	<1.3 J	<5.0 J
Benzene	2 J	6 J	4 J	1.9	3.5	1.1 J
Toluene	<5	2 J	2 J	3.2 J	3.8	2.3 J
Ethylbenzene	5	8 J	9 J	24	11	25 J
Xylene	19	19 J	30 J	64	33	60 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	1 J	<5.0	<5.0	2.6	1.4	<1.1 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	1.9	6.1 J	3.8 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0 J

MW-32						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	20	6 J	<25	<5.0 J	<5.0 J	<5.0 J
Benzene	2 J	1 J	<10	1	<1.0	<1.0 J
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0 J
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0 J
Xylene	<10	<20	<20	<5.0	<5.0	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0 J
Aniline	<5.0	1 J	<5.0	0.4 J	<1.0	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0 J
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0 J

MW-1						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<1.3 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<0.3	<1.0 J
Toluene	<5.0	<10	–	<5.0	<0.4	<5.0 J
Ethylbenzene	<5.0	<10	–	<4.0	<0.5	<4.0 J
Xylene	<10	<20	–	<0.5	<0.5	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	–	<1.0	<0.4	<1.0 J
Aniline	2 J	<5.0	<5.0	0.2 J	<1.0	<1.0 J
N,N-Dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0 J
Methylene Chloride	<5.0	<10	–	<3.0	<0.5	<3.0 J



MW-33						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	22	9 J	–	<5.0 J	<5.0 J	<5.0 J
Benzene	2 J	12 J	–	11	16	6.7 J
Toluene	<5.0	<10 J	–	1.0 J	1.8 J	0.7 J
Ethylbenzene	<5.0	<10 J	–	<4.0	<4.0	<4.0 J
Xylene	<10	<20 J	–	<5.0	<5.0	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10 J	–	<1.0	<1.0	<1.0 J
Aniline	1,900 D	2,700 D	2,700 D	1,800	3,500	370 J
N,N-dimethylaniline	<5.0	5 J	5 J	<10	<25 J	3.5 J
Methylene Chloride	<5.0	<10 J	–	<3.0	<3.0	<3.0 J

MW-3S						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	6 J	<25	<5.0 J	<1.3 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<0.3	<1.0
Toluene	<5.0	<10	<10	<5.0	<0.4	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0
Xylene	<10	<20	<20	<5.0	<0.4	<5.0
Methanol	<1,000	<1,000	150 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0
Aniline	4 J	0.8 J	4 J	15	<1.0	<1.0
N,N-dimethylaniline	<5.0	<6.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- TW-02R REMOVED GROUNDWATER MONITORING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH

SAMPLE IDENTIFICATION

MW-35						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	5 J	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1000	<1000	240 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	4 J	30	82	<1.0	<1.0	0.4 J
N,N-dimethylaniline	<5.0	4 J	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COC CONCENTRATIONS DETECTED OR THAT HAVE BEEN DETECTED ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURE 1).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. DURING THE AUGUST 2004 SUPPLEMENTAL REMEDIAL ACTIVITIES, MONITORING WELL TW-02R WAS REMOVED AND TW-02RR WAS CONSTRUCTED OUTSIDE THE SOIL REMOVAL AREA IN THE VICINITY OF TW-02R.
11. THE 11/04 SAMPLING EVENT VOLATILE ORGANIC COMPOUND (VOC) DATA FOR MW-33 AND MW-1 WERE INADVERTENTLY LOST DUE TO LABORATORY EQUIPMENT FAILURE. AS DETAILED IN THE BIANNUAL REPORT, THESE MONITORING WELLS WERE NOT RESAMPLED.

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GRAPHIC SCALE

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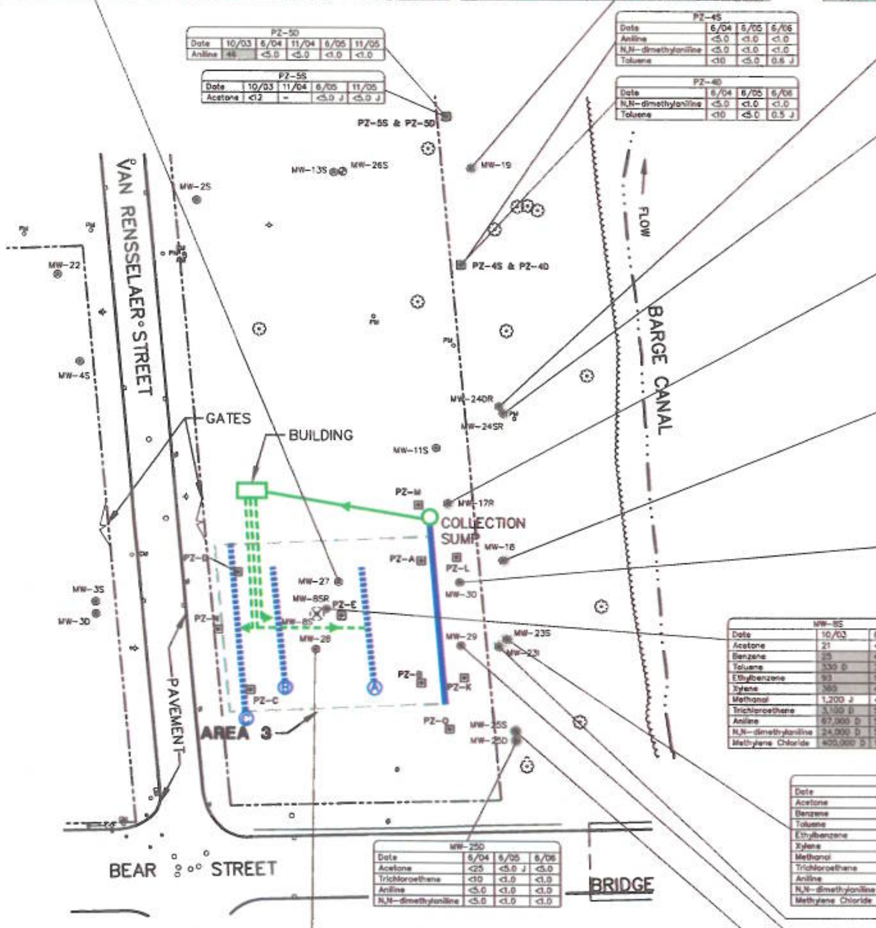
GROUNDWATER MONITORING DATA SUMMARY FOR OCTOBER 2003 - JUNE 2006 AREAS 1 & 2

ARCADIS

FIGURE 3



MW-27						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	170	23 J	<120 (28)	31 J	35 J (37 J)	5.3 J (5.8 J)
Benzene	5	5 J	<50 (4 J)	6.1	11 (12)	9.5 J (8.9 J)
Toluene	<5.0	4 J	<50 (2 J)	15	77 (78)	50 J (48 J)
Ethylbenzene	<5.0	2 J	<50 (<10)	5.8	26 (26)	25 J (25 J)
Xylene	3 J	6 J	<100 (<20)	15	86 (88)	86 J (83 J)
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000 (<1,000)	<1,000 J (<1,000 J)
Trichloroethene	<5.0	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0 J (<1.0 J)
Aniline	3,700 D	3,700 D	1,100 D J	5,200	37,000 (38,000)	14,000 J (12,000 J)
N,N-dimethylaniline	<5.0	20 J	<5.0	<23	<270 J (<260 J)	<100 J (<100 J)
Methylene Chloride	240 D	<10	310 (490 D)	<3.0	<3.0 (<3.0)	<3.0 J (<3.0 J)

MW-19						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<11	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	58 J	<5.0	<5.0	<1.1	<1.0	<1.0
N,N-dimethylaniline	16 J	<5.0	<5.0	<1.1	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

MW-24DR				
Date	10/03	11/04	6/05	11/05
Acetone	<12	–	<5.0 J	<5.0 J
Benzene	<5.0	–	<1.0	<1.0
Toluene	<5.0	–	<5.0	<5.0
Ethylbenzene	<5.0	–	<4.0	<4.0
Xylene	<10	–	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	–	<1.0	<1.0
Aniline	0.5 J	<5.0	<1.0	<1.1
N,N-Dimethylaniline	<5.0	<5.0	<1.0	<1.1 J
Methylene Chloride	<5.0	–	<3.0	<3.0

PZ-5D					
Date	10/03	6/04	11/04	6/05	11/05
Aniline	46	<5.0	<5.0	<1.0	<1.0

PZ-5S				
Date	10/03	11/04	6/05	11/05
Acetone	<12	–	<5.0 J	<5.0 J

PZ-4S			
Date	6/04	6/05	6/06
Aniline	<5.0	<1.0	<1.0
N,N-dimethylaniline	<5.0	<1.0	<1.0
Toluene	<10	<5.0	0.6 J

PZ-4D			
Date	6/04	6/05	6/06
N,N-dimethylaniline	<5.0	<1.0	<1.0
Toluene	<10	<5.0	0.5 J

MW-24SR					
Date	10/03	6/04	11/04	6/05	11/05
Acetone	<12	<25	–	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0
Aniline	16	<5.0	<5.0	<1.0	<1.0
N,N-Dimethylaniline	<6.0	<5.0	<5.0	<1.0	<1.0 J
Methylene Chloride	<5.0	<10	–	<3.0	<3.0

MW-17R						
Date	11/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0
Benzene	7	5 J	–	<1.0	<1.0	0.8 J
Toluene	<5.0	<10	–	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	200 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	<5.0	<5.0	<5.0	<1.0	<1.0	<1.1
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.1
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-18						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	0.7 J	R	<5.0	<1.0	<1.1	<1.0
N,N-Dimethylaniline	<5.0	R	<5.0	<1.0	<1.1 J	<1.0
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-30						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	<120	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<50	0.3 J	0.7 J	0.6 J
Toluene	<5.0	<10	<50	<5.0	0.6 J	0.4 J
Ethylbenzene	<5.0	<10	<50	<4.0	<4.0	<4.0
Xylene	<10	<20	<100	<5.0	0.5 J	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<50	<1.0	<1.0	<1.0
Aniline	4 J	<5.0	<5.0	<1.0	240	29
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<50	<3.0	<3.0	<3.0

MW-8S		
Date	10/03	6/04
Acetone	21	<25
Benzene	25	40
Toluene	330 D	330 EJ
Ethylbenzene	93	110
Xylene	360	400
Methanol	1,200 J	<1,000
Trichloroethene	3,100 D	5,900 D
Aniline	67,000 D	56,000
N,N-dimethylaniline	24,000 D	51,000
Methylene Chloride	400,000 D	1,200,000 D

MW-8SR				
Date	11/04	6/05	11/05	6/06
Acetone	<1,200	81 J	15 J	48
Benzene	<500	13	13	15
Toluene	100 DJ	100	130	120
Ethylbenzene	<500	53	68	79
Xylene	164 DJ	180	260	260
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<500	<1.0	<1.0	<1.0
Aniline	35,000 D	30,000	32,000	23,000
N,N-dimethylaniline	5,300 D	<200	<260 J	<200
Methylene Chloride	10,000 D	<3.0	<3.0	<3.0

MW-23S						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	60	<5.0	<5.0	<1.0	<1.0	<1.2
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.2
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-23I						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0	0.6 J
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	<5.0	1 J	<5.0	<1.0	<1.0	<1.0
N,N-Dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-25D			
Date	6/04	6/05	6/06
Acetone	<25	<5.0 J	<5.0
Trichloroethene	<10	<1.0	<1.0
Aniline	<5.0	<1.0	<1.0
N,N-dimethylaniline	<5.0	<1.0	<1.0

MW-2R						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	24	20 J	<120 (<25)	5.2 J	6.8 J (7.8 J)	<5.0J (<5.0 J)
Benzene	11	4 J	<50 (4 J)	4.5	6.1 (5.8)	6.0J (6.3 J)
Toluene	6	2 J	<50 (<10)	1.2 J	<5.0 (<5.0)	1.2 J (1.3 J)
Ethylbenzene	12	5 J	<50 (5 J)	4.6	4.7 (4.7)	5.3J (5.4 J)
Xylene	13 J	4 J	<100 (3 J)	3.9 J	<5.0 (<5.0)	4.2 J (4.3 J)
Methanol	<1,000	<1,000	190 J	<1,000	<1,000 (<1,000)	<500J (<1,000 J)
Trichloroethene	<5	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0J (<1.0 J)
Aniline	1,900 D	910 D	640 D J	630	380 (350)	430J (530 J)
N,N-dimethylaniline	<5.0	<5.0	<5.0	<5.0	<2.2 J (<2.1 J)	<2.1J (<5.0 J)
Methylene Chloride	<5.0	<10	<50 (<10)	<3.0	<3.0 (<3.0)	<3.0J (<3.0 J)

MW-25S						
Date	11/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<4.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	<5.0	<5.0	<5	<1.1	<1.0	<1.0
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.1	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-29						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	<120	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<50	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<50	<5.0	<5.0	<5.0
Ethylbenzene	<5	<10	<50	<4.0	<4.0	<4.0
Xylene	<10	<20	<100	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	420 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<50	<1.0	<1.0	<1.0
Aniline	2 J	3 J	<5.0	<1.0	<1.0	<1.0
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<50	<3.0	<3.0	<3.0

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PMO PETROLEUM PIPE LINE MARKER
- GMO GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- MW-8S REMOVED GROUNDWATER MONITORING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH
- PIPING TO BUILDING
- PIPING FROM BUILDING

SAMPLE IDENTIFICATION

CONCENTRATION (ppb)

MW-8S		
Date	10/03	6/04
Acetone	21	<25
Benzene	25	40
Toluene	330 D	330 EJ
Ethylbenzene	93	110
Xylene	360	400
Methanol	1,200 J	<1,000
Trichloroethene	3,100 D	5,900 D
Aniline	67,000 D	56,000
N,N-dimethylaniline	24,000 D	51,000
Methylene Chloride	400,000 D	1,200,000 D

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COC CONCENTRATIONS DETECTED OR HAVE BEEN DETECTED ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURE 2).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. E = THE COMPOUND WAS QUANTITATED ABOVE THE CALIBRATION RANGE.
11. THE 6/04 SAMPLING EVENT ANILINE AND N,N-DIMETHYLANILINE DATA FOR MW-18 WERE REJECTED DUE TO THE DEVIATION FROM A SURROGATE RECOVERY BELOW 10 PERCENT. THIS MONITORING WELL WAS NOT RESAMPLED.
12. DURING THE AUGUST 2004 SUPPLEMENTAL REMEDIAL ACTIVITIES, MONITORING WELL MW-8S WAS REMOVED AND MW-8SR WAS CONSTRUCTED DOWNGRADIENT OF THE SOIL REMOVAL AREA IN THE VICINITY OF MW-8S.
13. THE 11/04 SAMPLING EVENT VOLATILE ORGANIC COMPOUND (VOC) DATA FOR MW-17R, MW-18, MW-23I, MW-23S, MW-24DR, MW-24SR, MW-25S, PZ-5D, AND PZ-5S WERE INADVERTENTLY LOST DUE TO LABORATORY EQUIPMENT FAILURE. AS DETAILED IN THE BIANNUAL REPORT, THESE MONITORING WELLS WERE NOT RESAMPLED.
14. THE 11/04 SAMPLING EVENT VOC INITIAL DATA FOR MW-27, MW-28, MW-29, AND MW-30 WERE INADVERTENTLY LOST DUE TO LABORATORY EQUIPMENT FAILURE. HOWEVER, VALID DATA WAS OBTAINED FROM SUBSEQUENT DILUTIONS OF THESE SAMPLES, RESULTING IN HIGHER DETECTION LIMITS. THE VOC RESULTS OBTAINED FROM THE DUPLICATE SAMPLES COLLECTED AT MW-27 AND MW-28 HAVE LOWER DETECTION LIMITS AND ARE PRESENTED ON THIS FIGURE IN PARENTHESES.

0 100' 200'

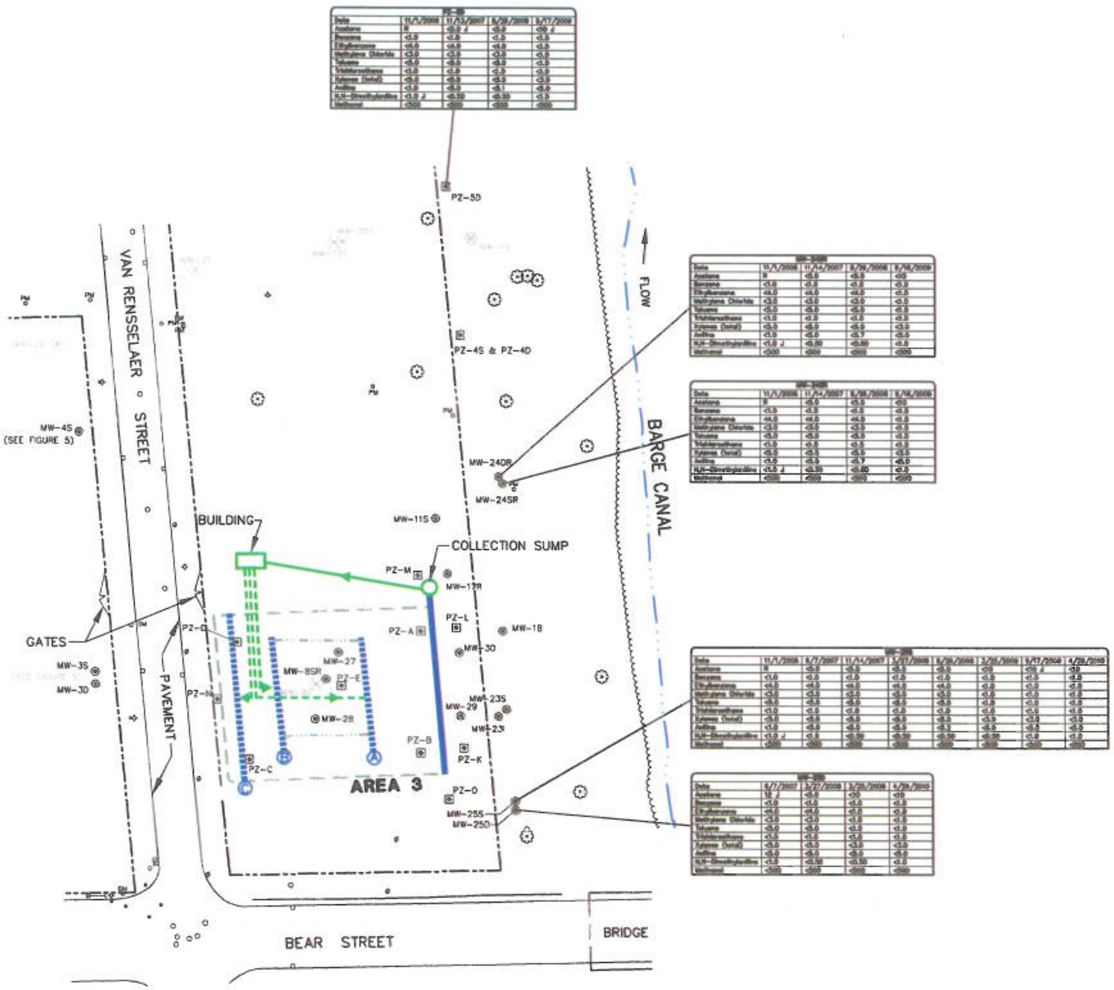
GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR OCTOBER 2003 - JUNE 2006 AREA 3

ARCADIS

FIGURE 4



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY
- LINE EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
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3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COC CONCENTRATIONS DETECTED OR HAVE BEEN DETECTED ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 2 AND 4).
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7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. B = COMPOUND WAS FOUND IN ASSOCIATED METHOD BLANK.
11. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY. THE 6/10 SAMPLING EVENT WAS AN INTERIM SAMPLING EVENT ANALYZING FOR VOLATILE ORGANIC COMPOUNDS ONLY.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS - STANDARD NOT AVAILABLE.

SAMPLE IDENTIFICATION

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

0 100' 200'

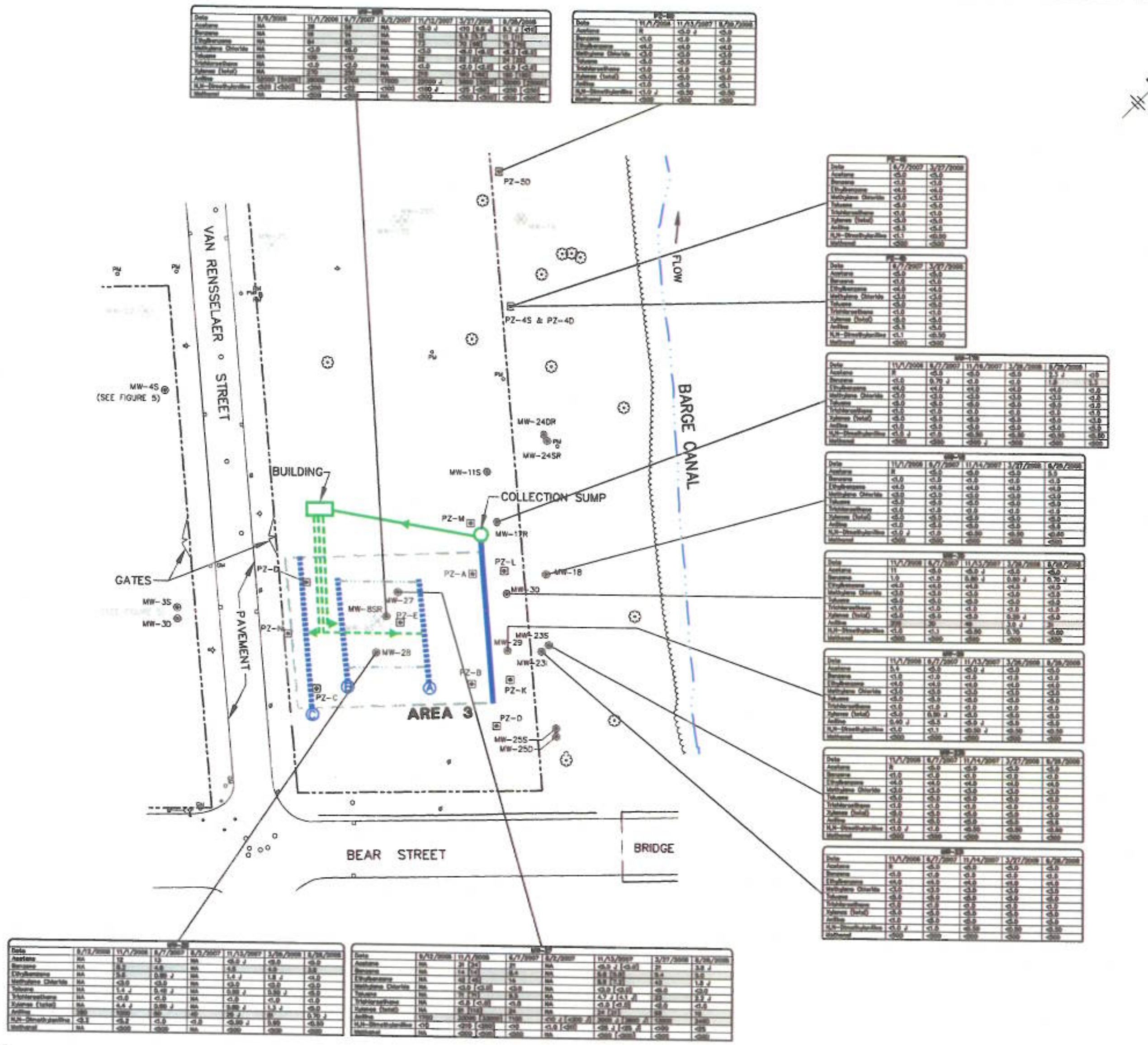
GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR SEPTEMBER 2006 - AUGUST 2009 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE **5**



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY
- LINE EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING

NOTES:

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3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
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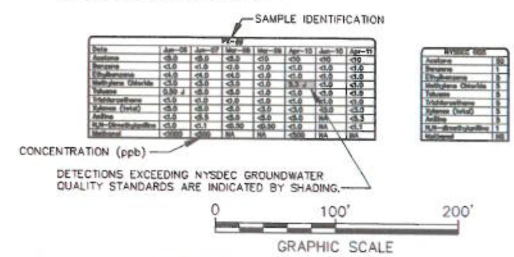
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. B – COMPOUND WAS FOUND IN ASSOCIATED METHOD BLANK.
11. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY. THE 6/10 SAMPLING EVENT WAS AN INTERIM SAMPLING EVENT ANALYZING FOR VOLATILE ORGANIC COMPOUNDS ONLY.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS – STANDARD NOT AVAILABLE.

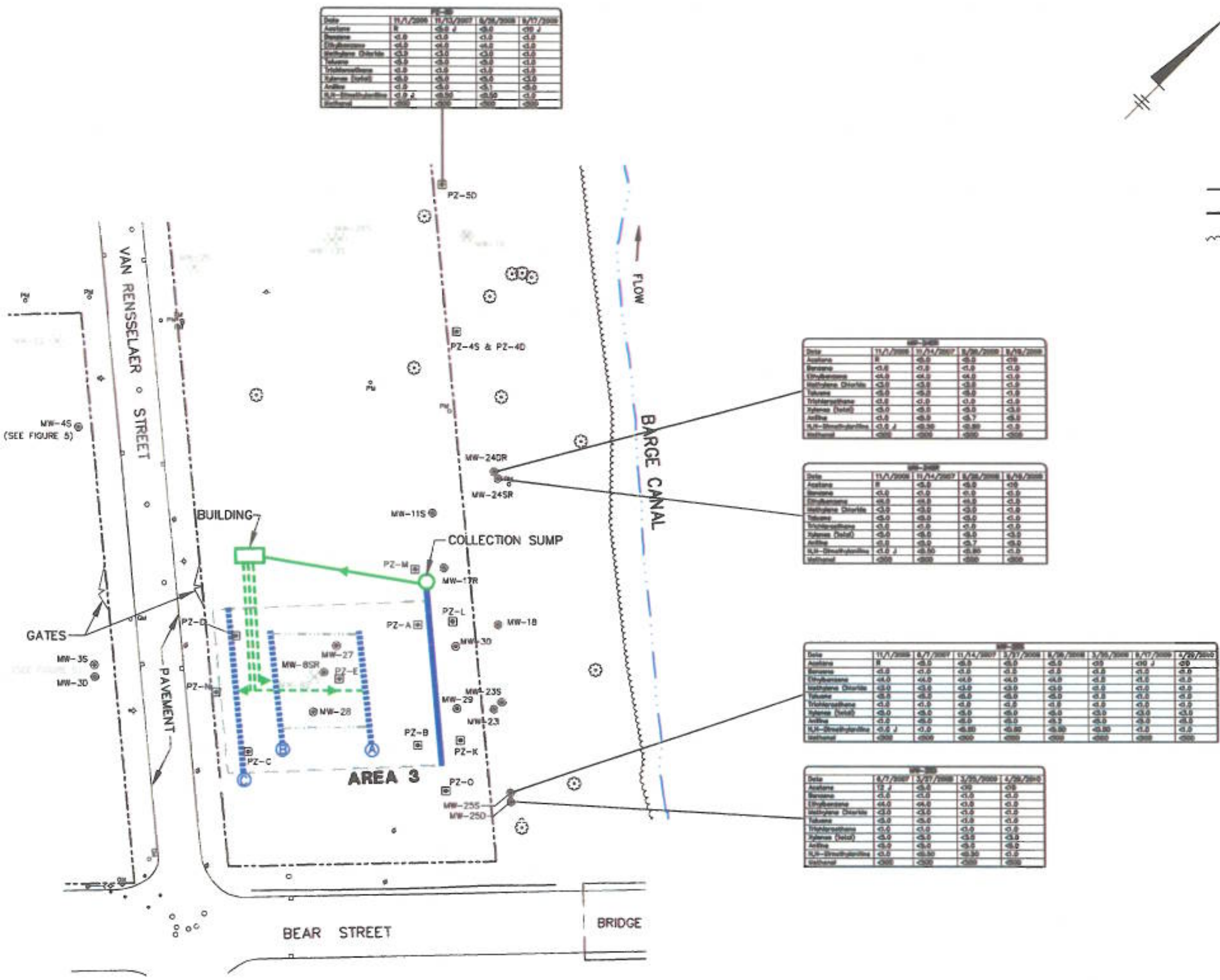


McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR SEPTEMBER 2006 - AUGUST 2009 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE 6



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY
- LINE EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING

NOTES:

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3. MONITORING LOCATIONS ARE APPROXIMATE.
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13. NS – STANDARD NOT AVAILABLE.

SAMPLE IDENTIFICATION

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

0 100' 200'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR SEPTEMBER 2006 - AUGUST 2009 FOR ELIMINATED MONITORING WELLS

ARCADIS

FIGURE 7

ARCADIS

Attachment B

Validated Analytical Laboratory Report

Attachment C

Statistical Analyses

ATTACHMENT C – Statistical Analyses

Discussion of Statistical Results – McKesson Envirosystems Bear Street Facility

To evaluate whether total constituent of concern (COC) molar concentrations have reached asymptotic conditions (where COC levels are no longer significantly decreasing or increasing), three different analyses were performed using each Area's annual data from 1998 to 2012. The first analysis involved a calculation of overall percent removal of total COC molar concentrations (i.e., moles per liter) from 1998 to 2012. If the overall percent removal during the 15-year period was within 1 percent of complete (100 percent) removal, then it was implied that COC levels approached asymptotic conditions as removal cannot exceed 100 percent.

$$\frac{\text{(Initial Molar Concentration)} - \text{(2012 Molar Concentration)}}{\text{(Initial Molar Concentration)}} * 100 = \text{\% reduction}$$

The second analysis used a first-order decay function [$C_t = C_0 * e^{kt}$, where C_t = total COC molar concentration at time t, C_0 = total COC molar concentration in 2002, k = the decay coefficient, b = COC concentration in 1998, and t = number of years since 2002] of total COC molar concentrations from 2002 to 2012 to determine decay rate, and half-life of COC concentrations in order to evaluate how rapidly COC levels decreased over time. If the COC levels exhibited statistically significant exponential decay over the 10-year period and the percentage of total COCs remaining was relatively small, then it was implied that COC concentrations approached asymptotic conditions by 2012.

$$Ln(C_t) = k * Ln(t) + b$$

$$C_t = e^{kt} * e^b$$

$$C_t = C_o * e^{kt}, \text{ where } e^b = C_o$$

$$\text{Decay Rate} = (1 - e^k) * 100$$

$$\text{Half-Life (years)} = Ln(1/2)/k$$

The third analysis involved a linear regression between time (year) and percent reduction in total COC molar concentrations from 2008 to 2012. If the slope of the COC concentrations did not significantly differ from zero, then the data indicate that the asymptote was effectively reached by 2012. The data and results of the analyses for each Area are described below. It is important to note that, in order to accurately portray the temporal trends in COCs at the site, methanol values have been excluded from the analyses.[1]

Area 1

Between 1998 and 2012, the overall percent reduction in COC levels in Area 1 was 98.9 percent (Table 5 and Figure 7 of the Periodic Review Report [PRR]). As COC levels were within 1 percent of complete removal (based on two significant figures), the data indicate that COC levels approached asymptotic conditions.

$$\frac{(2.9E\text{-}05\ mol/L) - (3.2E\text{-}07\ mol/L)}{(2.9E\text{-}05\ mol/L)} * 100 = 98.9\%\ \text{reduction}$$

The decay relation [$C_t = 11.4 * e^{-0.39t}$] (see Figure 1) for total COC molar concentrations from 2002 to 2012 indicates that total COC molar concentrations decreased relatively quickly and consistently over the 10-year period (Figure C-1). The decay coefficient (k) for total COC molar concentrations since 2002 is -0.39 (probability of occurrence (p)=2.8E-04, confidence interval (α)=0.05, correlation coefficient (r^2)=0.79). This decay coefficient results in a half-life of 1.8 years and a statistically significant annual decay rate of 32 percent per year (95 percent confidence interval ranging from 21 to 42 percent per year). As COC molar concentrations exhibited statistically significant exponential decay with less than 1 percent of total COCs remaining in 2012, the data indicate that COC levels approached asymptotic conditions by 2012.

$$Ln(C_t) = -0.39 * Ln(t) + 782.81$$

$$C_t = 11.4 * e^{-0.39}$$

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[1] Methanol has a very high detection limit relative to the other COCs evaluated. The methanol detection limit was 1,000 micrograms per liter (µg/L) until 2006 when lowered to 500 µg/L. In the calculation for total COC molar COC concentrations, the use of half the detection limit for non-detects of methanol tends to misrepresent the total COC molar concentration present and confound interpretation of trends regarding COC concentrations.

In Area 1, this problem is most profound due to the low concentrations present compared to the other two Areas. Half the detection limit for methanol represents 17 percent of the initial molar concentration of all COCs present in 1998, and frequently represents more than 95 percent of the calculated COCs present. In Area 1, there have been only six detected methanol concentrations in 137 reported samples (95.6 percent non-detect); five of these six were during 2009, when sample contamination was suspected.

In Area 2, methanol was only detected seven times in 108 reported samples (93.5 percent non-detect), with three of the seven during the September 2009 sampling round when sample contamination was suspected.

In Area 3, there is stronger evidence that methanol was actually present at location MW-8SR in significant levels, as methanol was reported in the 11 samples taken prior to 2002. Since that time, only one of 17 reported samples has yielded detectable methanol concentrations at that location. At the other Area 3 locations, there were a total of three detections (including one in September 2009) in 50 samples.

$$\text{Decay Rate: } (1 - e^{-0.39}) * 100 = 32\%$$

$$\text{Half-Life: } Ln(1/2)/(-0.39) = 1.8 \text{ years}$$

A regression between time (2008-2012) and percent total COC reduction further supports the argument that COC concentrations in Area 1 approached asymptotic conditions of 100 percent removal (refer to Table 5 of the PRR for exact values used in the regression). The computed non-significant mean slope of 0.77 percent COC reduction per year ($p=0.49$, $\alpha=0.05$, $r^2= 0.17$), with the 95 percent confidence interval ranging from -2.4 to 3.9 percent per year, indicates that total COC molar concentrations in Area 1 most likely did not significantly decrease nor increase within the last 5 years, suggesting that COC levels effectively reached an asymptote by 2012.

Area 2

The overall percent reduction in COC levels in Area 2 from 1998 to 2012 was 99.6 percent (Table 5 and Figure 8 of the PRR). As COC levels were within 1 percent of complete removal, the data indicate that COC levels approached asymptotic conditions.

$$\frac{(6.1\text{E-04 mol/L}) - (2.6\text{E-06 mol/L})}{(6.1\text{E-04 mol/L})} * 100 = 99.6\% \text{ reduction}$$

In Area 2, aniline contributions dominated the overall COC molar concentrations. The concentrations of constituents other than aniline quickly achieved 99 percent reduction or more in the first few years, while aniline data actually increased, reaching a maximum in 2002. At that point, aniline accounted for approximately 99.7 percent of the total COC molar concentration. Since 2002, Area 2 appears to be approaching asymptotic conditions of 100 percent removal, as noted by the decay function of total COC molar concentrations from 2002 to 2012. Using a first-order decay relation [$C_t = 521*e^{-0.5723t}$], the total molar concentration of total COCs has an estimated decay coefficient (k) of -0.57 ($p=6.0\text{E-06}$, $\alpha=0.05$, $r^2=0.91$) with a corresponding half-life of 1.2 years and a statistically significant annual decay rate of 44 percent per year (95 percent confidence interval ranging from 35 to 51 percent per year) (Figure C-2). After a 10-year period (2002-2012), 0.17 percent of the total COC molar concentration remained. As COC molar concentrations exhibited statistically significant exponential decay with less than 1 percent of total COCs remaining in 2012, the data indicate that COC levels approached asymptotic conditions by 2012.

$$Ln(C_t) = -0.57 * Ln(t) + 1152$$

$$C_t = 521 * e^{-0.57t}$$

$$\text{Decay Rate: } (1 - e^{-0.57}) * 100 = 44\%$$

$$\text{Half-Life: } Ln(1/2)/(-0.57) = 1.2 \text{ years}$$

The regression between time (2008-2012) and percent total COC reduction indicates a continuing slight positive statistically significant mean slope of 0.64 percent reduction per year ($p=0.0496$, $\alpha=0.05$, $r^2=0.77$), with the 95 percent confidence interval ranging from 0.0022 to 1.3 percent per year (refer to Table 5 of the PRR for exact values used in the regression). Despite this minor increase in the percent reduction in total COC molar concentration, Area 2 appears to be approaching asymptotic conditions by 2012, as noted by the lower end of the 95 percent confidence interval approaching zero percent COC reduction per year (and an α value equal to 0.05 with two significant figures), the rapid decay rate, and the high degree of total COC removal within the last 3 years (>98.9 percent).

Area 3

The overall percent reduction in COC levels from 1999 to 2012 in Area 3 was 99.9 percent (Table 5 and Figure 9 of the PRR). As COC levels were within 1 percent of complete removal, the data indicate that COC levels approached asymptotic conditions.

$$\frac{(4.1\text{E-03 mol/L}) - (1.7\text{E-07 mol/L})}{(4.1\text{E-03 mol/L})} * 100 = 99.9\% \text{ reduction}$$

COC molar concentration data are erratic prior to 2002, when aniline, dimethyl aniline, and methyl chloride were major contributors. Dimethyl aniline and methyl chloride were essentially gone (>99.9 percent removal) by 2005. The decay relation [$C_t = 9213 * e^{-0.94t}$] for total COC molar concentrations from 2002 to 2012 supports the argument that COC molar concentrations in Area 3 rapidly decreased over the 10-year period, effectively approaching asymptotic conditions of 100 percent removal by 2012. The decay coefficient (k) for total COC molar concentrations is -0.94 ($p=1.2\text{E-}06$, $\alpha=0.05$, $r^2=0.94$), with a half-life of 0.74 year and a statistically significant annual decay rate of 61 percent per year (95 percent confidence interval ranging from 53 to 67 percent per year) (Figure C-3). After a 10-year period (2002-2012), 0.0034 percent of the total COC molar concentration remained. As COC molar concentrations exhibited statistically significant exponential decay, with less than 1 percent of total COCs remaining in 2012, the data indicate that COC levels approached asymptotic conditions in 2012.

$$Ln(C_t) = -0.94 * Ln(t) + 1882.6$$

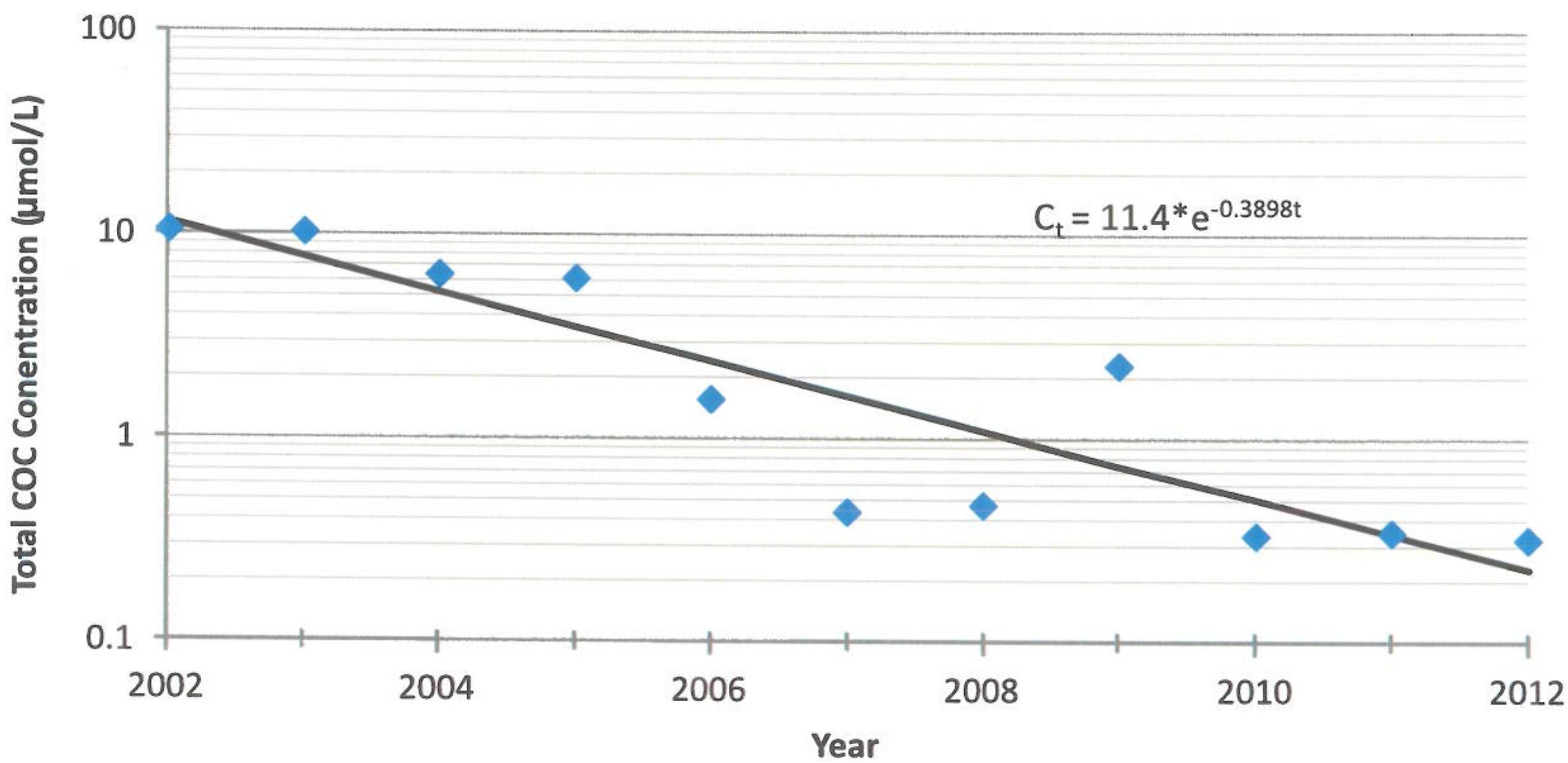
$$C_t = 9213 * e^{-0.94t}$$

$$\text{Decay Rate: } (1 - e^{-0.94}) * 100 = 61\%$$

$$\text{Half-Life: } Ln(1/2)/(-0.94) = 0.74 \text{ years}$$

The regression between time (2008-2012) and percent total COC reduction indicates a continuing slight positive statistically significant mean slope of 0.53 percent COC reduction per year ($p=0.042$, $\alpha=0.05$, $r^2=0.80$), with the 95 percent confidence interval ranging from 0.039 to 1.0 percent per year (refer to Table 5 of the PRR for exact values used in the regression). Despite this minor increase in the percent reduction in total COC molar concentrations, Area 3 has approached asymptotic conditions in 2012, as noted by the rapid decay rate and the high degree of COC removal within the last 3 years (>99.9 percent).

01/15/2013 SYRACUSE, NY-ENV/CAD- DJHOWES
B0026003/0000/00190/CDR/PRR/26003G04.CDR



Notes:

1. Data from monitoring wells MW-9S, MW-31, MW-32, MW-33, and TW-01 located in Area 1 were used to calculate molar concentrations of total constituents of concern (COCs).
2. The decay relation for total COCs from 2002 to 2012 is $C_t = C_0 * e^{kt}$, where C_t = total COC molar concentration at time t, C_0 = total COC molar concentration in 2002, k = the decay coefficient, and t = number of years since 2002.
3. The decay coefficient (k) for total COC molar concentrations since 2002 is -0.39 (p=2.8E-04, α=0.05, r^2=0.79), with a half-life of 1.8 years and a statistically significant annual decay rate of 32%/yr (95% confidence interval ranging from 21 to 42%/yr).
4. µmol/L - micromole per liter.

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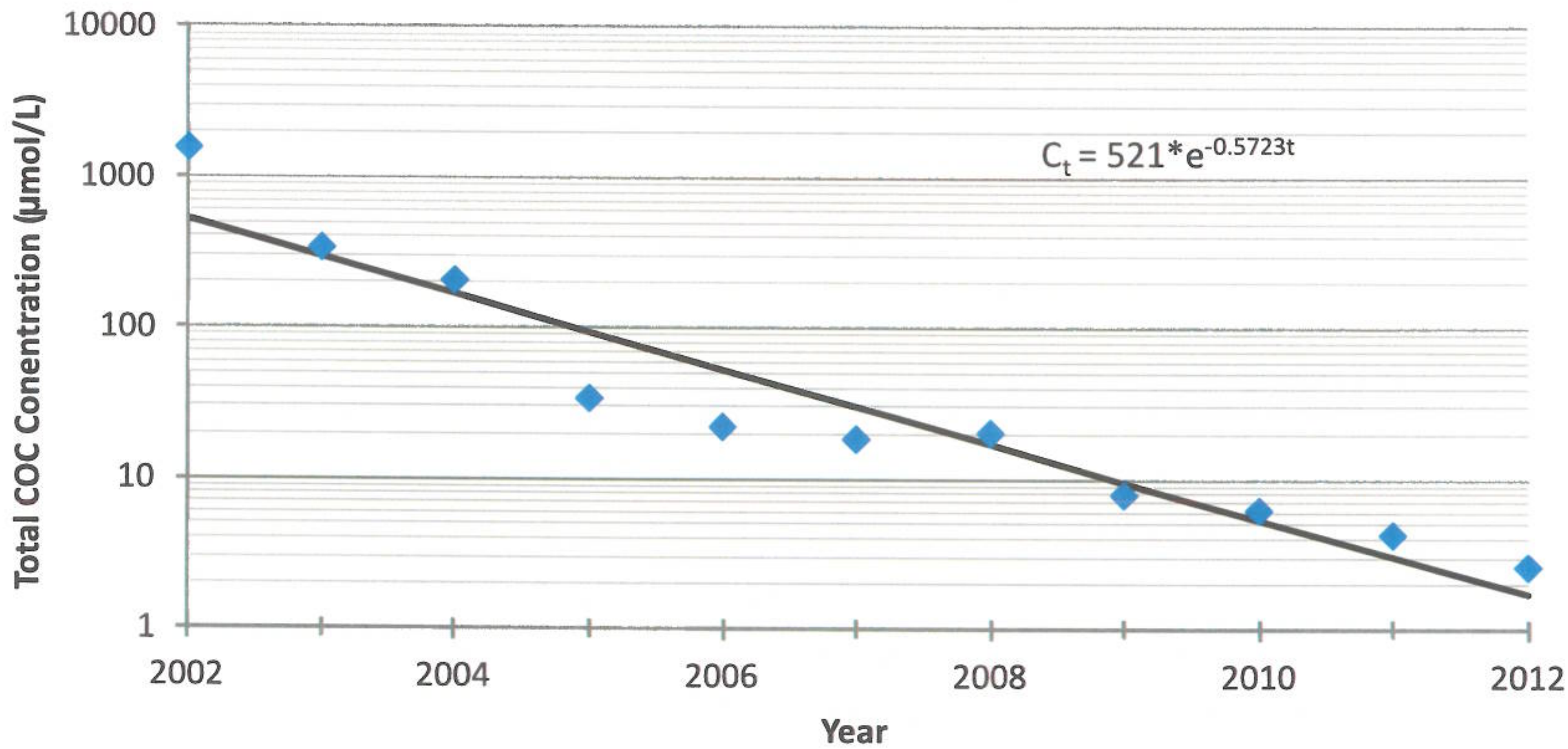
AREA 1 DECAY FUNCTION OF TOTAL COCS DURING IN-SITU BIOREMEDIATION TREATMENT PROGRAM

ARCADIS

FIGURE
C-1

01/15/2013 SYRACUSE, NY-ENV/CAD- DJHOWES
B0026003/0000/00190/CDR/PRR/26003G05.CDR



Notes:

1. Data from monitoring wells MW-34, MW-35, MW-36, and TW-02RRR located in Area 2 were used to calculate molar concentrations of total constituents of concern (COCs).
2. The decay relation for total COCs from 2002 to 2012 is $C_t = C_0*e^{kt}$, where C_t = total COC molar concentration at time t, C_0 = total COC molar concentration in 2002, k = the decay coefficient, and t number of years since 2002.
3. The decay coefficient (k) for total COC molar concentrations since 2002 is -0.57 (p=6.0E-06, α=0.05, r^2=0.91), with a half-life of 1.2 years and a statistically significant annual decay rate of 44%/yr (95% confidence interval ranging from 35 to 51%/yr).
4. µmol/L - micromole per liter.

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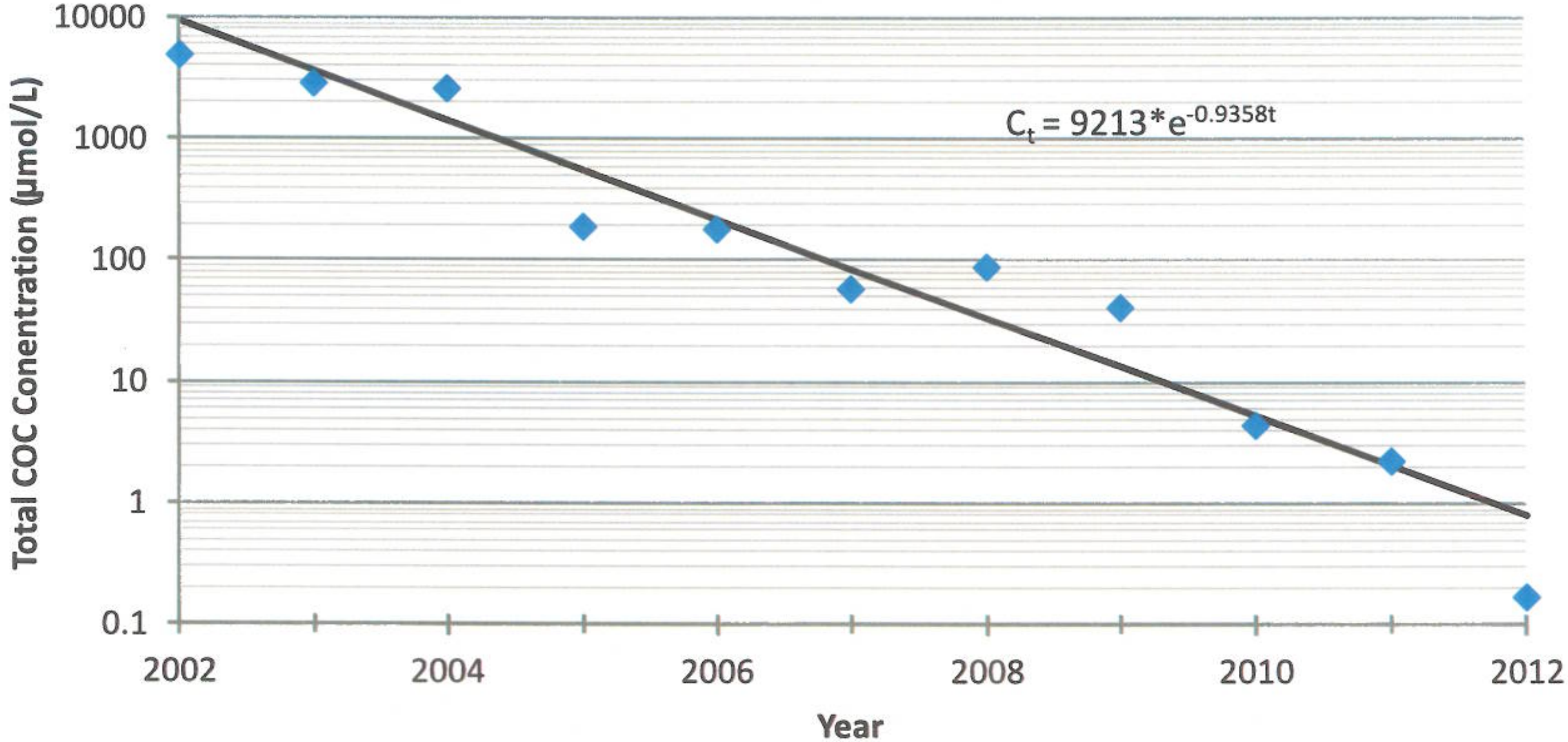
AREA 2 DECAY FUNCTION OF TOTAL COCS DURING IN-SITU BIOREMEDIATION TREATMENT PROGRAM

ARCADIS

FIGURE
C-2

02/28/2012 SYRACUSE, NY-ENV/CAD- DJHOWES
B0026003/0000/00190/CDR/PRR/26003G06.CDR



Notes:

1. Data from monitoring wells MW-8SR, MW-27, and MW-28 located in Area 3 were used to calculate molar concentrations of total constituents of concern (COCs).
2. The decay relation for total COCs from 2002 to 2012 is $C_t = C_0*e^{kt}$, where C_t = total COC molar concentration at time t, C_0 = total COC molar concentration in 2002, k = the decay coefficient, and t = number of years since 2002.
3. The decay coefficient (k) for total COC molar concentrations since 2002 is -0.94 ($p=1.2E-06$, $\alpha=0.05$, $r^2=0.94$), with a half-life of 0.74 years and a statistically significant annual decay rate of 61%/yr (95% confidence interval ranging from 53 to 67%/yr).
4. µmol/L - micromole per liter.

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AREA 3 DECAY FUNCTION OF TOTAL COCS DURING IN-SITU BIOREMEDIATION TREATMENT PROGRAM

ARCADIS

FIGURE
C-3