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Subject:

McKesson EnviroSystems  
Bear Street Site  
Syracuse, New York  
Site No. 07-34-020

Dear Mr. Long:

This 2010 Biannual Process Control Monitoring Report (Biannual Report) for the McKesson EnviroSystems, Bear Street Site, located at 400 Bear Street in Syracuse, New York (site), has been prepared by ARCADIS on behalf of McKesson Corporation. This report describes the operation and maintenance (O&M) activities conducted and the monitoring results obtained from July through December 2010. Additionally, this report also describes the supplemental remedial activities conducted between November 1 and 5, 2010. This report was prepared in accordance with the requirements of the New York State Department of Environmental Conservation- (NYSDEC-) approved Site Operation and Maintenance Plan (Site O&M Plan) (Blasland, Bouck & Lee, Inc. [BBL], 1999a); and with a December 29, 1999 letter (BBL 1999b) 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. The long-term process control monitoring program was recently modified by ARCADIS' September 3, 2010 modification proposal letter (ARCADIS 2010a) and the NYSDEC's modification proposal response letter dated September 23, 2010 (NYSDEC 2010). The Site O&M Plan (BBL 1999), the 1999 addendum (BBL 1999b) and 2010 modifications (ARCADIS 2010a and NYSDEC 2010) are collectively referred to herein as the Site O&M Plan. This report was also prepared in accordance with ARCADIS' October 26, 2010 letter (ARCADIS 2010b), which notified the NYSDEC of the scheduled supplemental remedial activities at the site.

The site is divided into three areas (Areas 1, 2, and 3), as shown on Figure 1. Additionally, the site is divided vertically into two operable units (OUs): OU1 – Unsaturated Soil and OU2 – Saturated Soil and Groundwater. The NYSDEC-

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selected remedy for both OUs includes ongoing O&M activities. Since completing OU1 remedial activities in 1994/1995 and commencing OU2 in-situ anaerobic bioremediation treatment activities in July 1998, biannual reports have been submitted to the NYSDEC, detailing both the O&M activities and the results of the process control monitoring program. A site description and history, along with a description of completed remedial actions and ongoing O&M activities, are detailed in previous biannual reports, including the August 2001 Biannual Report (BBL 2001), which documented remedial activities from July through December 2000. That information remains the same; therefore, it is not repeated in this Biannual Report.

As detailed in the Biannual Report submitted in June 2007, the OU2 in-situ anaerobic bioremediation treatment program was modified to an in-situ aerobic bioremediation treatment program in August 2006. Mr. Mark Mateunas (NYSDEC) verbally approved the modification in July 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. As detailed in the Biannual Report submitted in March 2009, 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. In October 2008, macronutrient amendments were discontinued in Areas 1, 2, and 3. Mr. Gerald Rider (NYSDEC) verbally approved the modification in October 2008.

In a letter to the NYSDEC dated September 3, 2010 (ARCADIS 2010a), ARCADIS requested several modifications to the long-term process control monitoring program based on historical groundwater monitoring and analytical data trends. Generally, the proposed modifications included the following:

- Eliminating methanol analyses in select wells/piezometers
- Removing select wells from the constituent of concern (COC) monitoring program
- Removing select deep wells/piezometers from the hydraulic monitoring program
- Abandoning select wells/piezometers

The NYSDEC approved the following specific modifications in the September 23, 2010 modification proposal response letter (NYSDEC 2010):

- Remove MW-1 and PZ-5S from the COC monitoring program and decommission.
- Remove MW-24SR and MW-25S from the COC monitoring program.
- Remove methanol analysis in MW-3S, MW-8SR, MW-27, MW-29, MW-30, MW-33, MW-36, and PZ-4S from the COC monitoring program.

- Remove deep monitoring wells MW-3D, MW-6D, MW-9D, MW-11D, MW-18, and MW-23I from the hydraulic monitoring program.
- Remove PZ-9D from the hydraulic monitoring program and decommission.
- Remove PZ-4D from the hydraulic monitoring program and remove methanol analysis from the COC monitoring program.
- Remove MW-19 from both COC and hydraulic monitoring programs and decommission.
- Remove MW-24DR, MW-25D, and PZ-5D from both COC and hydraulic monitoring programs.
- Decommission MW-2S, MW-6S, MW-13S, MW-15S, MW-26S, and PZ-9S.

MW-4S and MW-22 were sampled during the October 2010 groundwater sampling event per the modification proposal letter (NYSDEC 2010). After results indicated no COCs above NYSDEC standards, MW-22 was accepted for decommissioning and MW-4S was added by the NYSDEC to the COC monitoring program as a downgradient sentinel well for Area 2. Groundwater samples at MW-4S will not be collected for methanol (Mr. Payson Long, email to Ms. Dawn Penniman, November 10, 2010).

Figure 2 presents the modifications as approved by the NYSDEC. Modifications made to the COC and hydraulic monitoring programs were incorporated into the October 2010 sampling event. The monitoring wells/piezometers accepted for abandonment were decommissioned in November 2010.

The Area 3 in-situ aerobic bioremediation treatment system operated satisfactorily during this reporting period. The hydraulic process control system functioned properly during the current reporting period (July through December 2010) and no substantial system repairs were required. Approximately 804,316 gallons of water were pumped from the withdrawal trench and introduced into the Area 3 infiltration trenches, as detailed in this Biannual Report. In September 2010, a 90-foot section of chain-link fence along Van Rensselaer Street was repaired.

The information provided in this Biannual Report has been organized into the following sections:

- *In-situ Aerobic Bioremediation Treatment Program Activities.* Describes the in-situ aerobic bioremediation treatment program activities conducted from July through December 2010.
- *Hydraulic Process Control Monitoring.* Describes the results of the hydraulic process control monitoring activities conducted from July through December 2010.

- *Chemical of Concern Process Control and Biannual Groundwater Monitoring Program.* Describes the October results of the COC process control and Biannual Groundwater Monitoring Program, and summarizes the COC data obtained at the site from 1988 through December 2010.
- *Supplemental Remedial Activities.* Summarizes the supplemental remedial activities conducted at the site between November 1 and 5, 2010.
- *Well Decommissioning Activities.* Describes the well decommissioning activities conducted on November 1, 2, 3, and 24, 2010.
- *Conclusions.* Provides conclusions based on the results of the process control monitoring activities.
- *Recommendations.* Provides recommendations for the in-situ aerobic bioremediation treatment program and monitoring activities.

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

The in-situ aerobic bioremediation treatment program was verbally approved by the NYSDEC in July 2006 as an alternate approach to lowering aniline and other COC concentrations (i.e., benzene, toluene, ethylbenzene and xylene [BTEX], acetone, methanol, N,N-dimethylaniline, methylene chloride) 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 of 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 into 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 this reporting period (see Figures 1, 3, and 4 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 into infusion wells in Area 2 (IW-1, IW-2, IW-3, IW-4, and IW-5).
- Added oxygen gas to groundwater into 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-36 and TW-02RR) and Area 3 (MW-27, MW-28, and MW-8SR).

Dilute hydrogen peroxide was added to the groundwater in Area 1 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. Oxygen gas was continuously added to the Area 3 equalization tank at a concentration of approximately 25 ppm.

### **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 11, 2010. The monitoring locations are listed on Table 2 and shown on Figure 1. Mr. Payson Long (NYSDEC) was notified of the October 2010 hydraulic and COC monitoring event in the July 27, 2010 Biannual Process Control Monitoring Report for the reporting period of January through June 2010.

Table 1 summarizes the groundwater level measurements obtained during the October 11, 2010 hydraulic process control monitoring event, as well as those obtained since October 2006 (just after initiating the in-situ aerobic bioremediation treatment program). Table 2 in Attachment A summarizes the historical groundwater level 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 5 depicts the potentiometric surface of the site's shallow hydrogeologic unit using the October 2010 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 also summarized below.

- A closed-loop hydraulic cell continues to be maintained in Area 3, as shown on Figure 5.
- The groundwater withdrawal rate in Area 3 ranged from approximately 1.53 to 5.47 gallons per minute from July through December 2010.
- 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 1 through December 31, 2010.
- The hydraulic data that were 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 to 2 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.

### **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 11 through 15, 2010, in accordance with the Site O&M Plan (BBL 1999).

Groundwater samples were collected from October 11 to 15, 2010. In addition, the following groundwater quality parameters were measured in the field during the October sampling event: temperature, conductivity, DO and oxidation/reduction potential. The existing monitoring wells and piezometers used to conduct the long-term process control monitoring program and a schedule for implementing this program are provided in Table 2. The monitoring locations are shown on Figure 1.

As stated in the NYSDEC's 1997 Record of Decision (ROD; NYSDEC 1997) for the saturated soils at the site, two of the remediation goals for the site are to:

1. "reduce, control, or eliminate the concentrations of COCs present within the saturated soils at the [Site]."
2. "attain the NYSDEC Class GA Groundwater Quality Standards, to the extent practicable, for the COCs present in onsite groundwater."

In accordance with the requirements of the NYSDEC-approved monitoring program, laboratory analytical results for the October 2010 samples were validated. The validated COC groundwater analytical results are summarized in Table 3 and shown on Figures 6 and 7. These figures and table also summarize the COC groundwater analytical results obtained during the biannual monitoring events conducted from September 2006 through October 2010, which collectively represent the results obtained since the start of the in-situ aerobic bioremediation treatment activities. The COC groundwater analytical results obtained prior to September 2006 are summarized in Table 2 and on Figures 1 through 4 in Attachment A. Copies of the

validated analytical laboratory reports associated with the October 2010 sampling event are presented in Attachment B. This Biannual Report summarizes the COC analytical results and DO measurements for the downgradient perimeter monitoring locations and for each of the three areas.

During the October 2010 sampling event, the presence or absence of non-aqueous 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-36, and TW-02RR during this reporting period. Table 4 summarizes these DO measurements.

Additionally, the Mann-Kendall Test for Trends was run for the COC data that was obtained between March 1988 and October 2010 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 that was obtained between August 2006 and October 2010 for monitoring locations MW-8SR, MW-27, MW-28, MW-33, MW-36, and TW-02RR.

The COC analytical results, DO measurements, and Mann-Kendall Test for Trends results, along with the downgradient perimeter monitoring locations for each area, are summarized below.

- *Sentinel Wells.* No COCs were detected at sentinel wells (MW-3S, MW-4S, and MW-22). No COCs have exceeded standards in sentinel wells since June 2005 (aniline in MW-3S). MW-22 has been removed as a sentinel well based on these results.
- *Area 1:*
  - COC concentrations detected in groundwater samples collected from Area 1 monitoring wells during October 2010 were generally low, ranging from non-detect to concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standard (Table 3 and Figure 6). A majority of COC concentrations detected during October 2010 at Area 1 monitoring wells were approximately equal to or below concentrations detected during the April 2010 sampling event.



- The N,N-dimethylaniline concentration at TW-01 was slightly higher than the NYSDEC Groundwater Quality Standard (1 part per billion [ppb]). No other COCs exceeded their NYSDEC Groundwater Quality Standard at TW-01 during this reporting period. Overall, the concentrations detected at this location for N,N-dimethylaniline are trending downward.
  - Benzene, ethylbenzene, xylenes, and N,N-dimethylaniline at MW-9S were detected above their respective NYSDEC Groundwater Quality Standards in October 2010. Overall, the benzene and N,N-dimethylaniline concentrations detected at this location are trending downward.
  - Benzene and N,N-dimethylaniline at MW-31 were detected at concentrations above their respective NYSDEC Groundwater Quality Standards during this reporting period. Results of the Mann-Kendall Test for Trends show a decreasing trend in both N,N-dimethylaniline and benzene concentrations at MW-31.
  - All COC concentrations at MW-32 are below NYSDEC Groundwater Quality Standards.
  - Benzene and N,N-dimethylaniline at MW-33 were detected at concentrations slightly above their respective NYSDEC Groundwater Quality Standard this reporting period. Results of the Mann-Kendall Test for Trends show a decreasing trend in N,N-dimethylaniline concentrations at MW-33. The aniline concentrations detected at MW-33 have remained below the NYSDEC Groundwater Quality Standard (5 ppb) for the last seven sampling events. At the beginning of the aerobic bioremediation project in 2006, aniline was detected at 940 ppb and has not been detected at MW-33 since November 2007.
  - During this reporting period, DO levels were measured at MW-33 from July to December 2010 and are summarized in Table 4. The DO levels ranged from 0.30 to 0.78 ppm. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Overall DO levels detected at MW-33 are trending upward.
- *Area 2:*
    - COC concentrations detected in groundwater samples collected from Area 2 monitoring wells were generally low; most COC concentrations detected during October 2010 at Area 2 monitoring wells were

approximately equal to or below concentrations detected during the April 2010 sampling event (Table 3 and Figure 6).

- The aniline concentration detected in the groundwater sample collected at TW-02RR was lower during this reporting period (760 ppb in October 2010) than the concentrations detected during the previous reporting period (2,800 ppb in April 2010). Benzene was the only other COC detected at a concentration above the NYSDEC Groundwater Quality Standard in the groundwater sample collected at this location during the October 2010 sampling event. N,N-dimethylaniline was not detected above the quantitation limit of 5 ppb, however this constituent was detected (duplicate sample, 2.2 ppb estimated concentration only) above the NYSDEC Groundwater Quality Standard (1 ppb) in the duplicate groundwater sample collected at TW-02RR during the October 2010 sampling event. The xylene concentration (3.6 ppb) at TW-02RR remained below the NYSDEC Groundwater Quality Standard (5 ppb) during this reporting period. This is the fourth result below standard since March 2009. Overall, the aniline and benzene concentrations detected at this location are trending downward.
- Aniline was not detected at MW-34 above the NYSDEC Groundwater Quality Standard (5 ppb) during this or the previous two reporting periods. Only N,N-dimethylaniline (2.9 ppb), which was detected at a concentration slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb), exceeded standards in the October 2010 sampling event at this location. Overall, the N,N-dimethylaniline concentrations detected at this location are trending downward.
- No COCs were detected at MW-35. No COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since November 2004.
- The aniline concentrations detected in the samples collected at MW-36 during the October 2010 sampling event (620 ppb) exceeded the NYSDEC Groundwater Quality Standard (5 ppb). Benzene (3.9 ppb) was detected at concentrations slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb) in the October 2010 sampling event at this location. Xylenes were detected at a lower concentration (4.8 ppb) than the NYSDEC Groundwater Quality Standard (5 ppb), and N,N-dimethylaniline was not detected in October 2010. The results of the Mann-Kendall Test for Trends shows that the concentrations of N,N-dimethylaniline detected at MW-36 are trending downward.

- DO levels were measured in Area 2 (MW-36 and TW-02RR) between July and December 2010 and are summarized in Table 4. The DO levels ranged from 0.37 to 0.56 ppm at MW-36 and 0.30 to 0.71 ppm at TW-02RR. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Overall DO levels detected at MW-36 are trending upward.
- *Area 3:*
  - COC concentrations detected in groundwater samples collected from Area 3 monitoring wells during the October 2010 sampling event were generally consistent with or lower than the concentrations detected in the previous sampling event conducted in April 2010 (Table 3 and Figure 7).
  - Monitoring well MW-8SR is located in the center of Area 3 and within the area that has been identified as containing relatively higher concentrations of COCs (Figure 7). The aniline concentration detected at MW-8SR (220 ppb) in October 2010 was the lowest concentration detected at this location since initiating the remedial action. The aniline concentrations detected at MW-8SR have been trending downward since 2002. Although xylenes (31 ppb) were detected in October 2010 at a concentration above the NYSDEC Groundwater Quality Standard (5 ppb), it is the lowest concentration detected since initiating the aerobic bioremediation treatment program in August 2006. Benzene, ethylbenzene, and N,N-dimethylaniline exceeded their respective NYSDEC Groundwater Quality Standards. The results of the Mann-Kendall Test for Trends shows that all COC concentrations that exceeded their respective NYSDEC Groundwater Quality Standard in the groundwater sample collected from MW-8SR in October 2010, are gradually trending downward.
  - The aniline concentration detected at MW-27 during this reporting period (220 ppb in October 2010) exceeded NYSDEC Groundwater Quality Standards (5 ppb), but was significantly lower than the concentration detected during the previous reporting period (1,300 ppb in April 2010). Benzene (2.7 ppb) and N,N-dimethylaniline (2.5 ppb) slightly exceeded NYSDEC Groundwater Quality Standards (1 ppb each, respectively).
  - Monitoring well MW-28 has historically exhibited relatively higher concentrations of aniline. Aniline was detected at a concentration (2.4 ppb) below the NYSDEC Groundwater Quality Standard in October

2010. No COCs (with the exception of benzene [1.8 ppb]) were detected at concentrations above their respective Groundwater Quality Standard in groundwater samples collected from MW-28. Overall benzene and aniline concentrations detected at this location are trending downward.
- No COCs were detected at MW-29. No COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since May 2003.
  - At MW-30, only methylene chloride (37 ppb) was detected above the NYSDEC Groundwater Quality Standard (5 ppb). This exceedance is similar to those methylene chloride exceedances detected during the April 2010 sampling event at four of the downgradient perimeter monitoring locations (PZ-4S, PZ-4D, MW-23I, and MW-18). Re-sampling of these 4 locations was conducted in June 2010 and methylene chloride was not detected above the NYSDEC Groundwater Quality Standard. However, because MW-30 is within hydraulically controlled Area 3, re-sampling was not done during this reporting period.
  - DO levels were measured at MW-8SR, MW-27, and MW-28 between July and December 2010 and are summarized in Table 4. The DO levels at MW-8SR ranged from 0.40 to 0.98 ppm. The DO levels at MW-27 ranged from 0.48 to 0.87 ppm. The DO levels at MW-28 ranged from 0.81 to 1.70 ppm. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Overall DO levels detected at MW-27 and MW-28 are trending upward.
- *Downgradient perimeter monitoring locations.* There was one detection of a COC above NYSDEC Groundwater Quality Standards at the downgradient perimeter monitoring locations (Table 2) during the October 2010 sampling event (Table 3 and Figure 7). Benzene (1.3 ppb) was detected at MW-17R, slightly above the NYSDEC Groundwater Quality Standard (1 ppb)

### Supplemental Remedial Activities

Groundwater samples collected from TW-02RR (Area 2, Figure 1) have consistently shown higher concentrations of aniline compared to other wells at the site (Figure 6). Statistically, however, the aniline levels in this well exhibit a decreasing historical trend. ARCADIS conducted supplemental remedial activities in Area 2 on September 13 and 14, 2010, and between November 1 and November 5, 2010 to identify, delineate and remove a portion of the soils in the saturated zone in Area 2. Removing the potential residual sources of aniline that are impacting the

groundwater quality in this area will further enhance the overall remediation of Area 2. Two of the remediation goals of the March 1997 Record of Decision for the Site are to: 1) reduce, control, or eliminate the concentrations of constituents of concern (COCs) present within the saturated soils at the Site and 2) attain the NYSDEC Class GA Groundwater Quality Standards, to the extent practicable, for the COCs present in onsite groundwater. This soil excavation will achieve the first goal immediately and should expedite the achievement of the second goal by removing aniline-containing saturated soils in the vicinity of TW-02RR.

The supplemental remedial activities were conducted, as described in ARCADIS' October 26, 2010 letter to the NYSDEC (ARCADIS 2010b), by Royal Environmental, Inc. (Royal) and supervised on-site by ARCADIS personnel.

The supplemental remedial activities generally included:

- Collecting groundwater samples at three standpipes in Trench A (SP-2-2, SP-2-3, and SP-2-4), injection wells IW-4 and IW-5, and piezometer PZ-W and performing aniline analysis.
- Well removal/abandonment to allow for soil removal activities near TW-02RR, MW-36, and PZ-W.
- TW-02RR soil excavation area delineation and soil excavation near TW-02RR, MW-36, and PZ-W.
- Backfilling the excavated area with pea gravel amended with Oxygen Release Compound (ORC<sup>®</sup>).
- Installation of stand-pipes to facilitate water injection into the excavation area if necessary.
- Replacement of monitoring wells TW-02RR and MW-36 for conducting groundwater monitoring.

Supplemental remedial activities were conducted in accordance with the procedures and requirements set forth in the site-specific October 2010 Health and Safety Plan (HASP: ARCADIS 2010c). The HASP was updated in October 2010 to include additional tasks associated with the supplemental remediation activities and modifications to the Site O&M Plan (BBL 1999). Prior to commencing work, all on-site personnel reviewed the HASP and signed the HASP acknowledgement form. Daily safety meetings were held to address safety considerations for each day's tasks. Considerations included emergency procedures, hazard identification and controls, personal protective equipment requirements, and lessons learned from the previous day's activities. During all intrusive subsurface activities, including excavation and well decommissioning activities, air monitoring was conducted per the HASP Addendum 1 (ARCADIS 2010c) and as set forth by the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (NYSDOH

2000). The oxygen infusion system in Area 2 (Figure 2) was shut off on October 22, 2010 due to the potential for damage during soil excavation operations. The system was reactivated on November 30, 2010.

The supplemental remedial activities are described below.

### ***Groundwater Sampling for Preliminary Delineation of Soil Excavation Area***

On September 13 and 14, 2010, groundwater samples were collected at several locations to help define the soil excavation area near TW-02RR. The groundwater samples were collected from three standpipes in Trench A (SP-2-2, SP-2-3, and SP-2-4), injection wells IW-4 and IW-5, and piezometer PZ-W (located to the northeast of MW-36), and were analyzed for aniline. Sampling activities were conducted in accordance with the Site O&M Plan (BBL 1999). Figure 8 presents the locations of the samples collected and the laboratory analysis results for aniline and N,N-dimethylaniline. These results, along with historical results, supported the decision to begin the excavation in the vicinity of TW-02RR and move to the northwest towards MW-36 and PZ-W.

### ***Well Removal/Abandonment***

Due to their location within the soil excavation area in Area 2, monitoring wells TW-02RR and MW-36 were removed prior to soil removal activities by Parratt-Wolff, Inc. (Parratt-Wolff) on November 1, 2010 (Figure 9). A Diedrich D-90 all-terrain-vehicle-(ATV-) mounted drill rig was used to remove the well surface construction and pull out the subsurface well casings from the soil excavation area. The full length (approximately 20 feet) of subsurface casing was retrieved from each of the wells. During the soil excavation activities on November 1 (discussed below), Royal used an excavator to remove piezometer PZ-W. Approximately 10 feet of subsurface casing was retrieved from PZ-W.

### ***Soil Excavation in Area 2, Backfilling of Area, and Standpipes***

On November 1, 2010, Royal began soil excavation activities using a John Deere 135 excavator to remove the upper soil interval (0 to 6 feet bgs) from within the target excavation area. The removed soil was stockpiled on-site for reuse as clean backfill after the targeted soils were removed. This upper soil interval is clean as a result of previous remedial work done in OU1 as detailed in the Remedial Design/Remedial Action Report Operable Unit No. 1 – Unsaturated Soils (BBL 1995). In August 2004, clean OU1 soil (0 to 6 feet bgs) was also used as backfill subsequent to soil excavation/amendment activities during remediation in Area 3, as described in the November 2004 Biannual Report (BBL 2004).

The suspected aniline source area was delineated in the field by ARCADIS' Mr. Aaron Richardson and Ms. Dawn Penniman, P.E. based on the groundwater data collected (as discussed above). Royal used an excavator to remove the targeted soil. The removed soil was staged onsite in six lined roll-off waste containers, pending waste characterization analysis. The excavation began in the immediate vicinity of former well TW-02RR. The excavation extents moved horizontally toward MW-36 and PZ-W; and vertically to an approximate depth of 10 feet bgs, as the soil excavation continued. Figure 9 presents the areal extent of the excavation activities.

After removing the targeted soils, pea stone was placed in the excavation and mixed with ORC<sup>®</sup> at a ratio of approximately 11 pounds of ORC<sup>®</sup> per ton of pea stone. The ORC<sup>®</sup>-amended pea stone was placed in the excavation area to approximately 4 feet bgs. Vertical 4-inch PVC standpipes connected to perforated horizontal headers were installed at the top of the pea stone. The excavation area was backfilled from 4 feet bgs to original grade with the stockpiled clean soil from the upper interval. These standpipes were used to add water to the ORC<sup>®</sup>-amended pea stone to aid in the ORC<sup>®</sup> activation.

Waste characterization analysis of the soil staged in the roll-off containers determined that the soil could be disposed of as a non-hazardous waste. Between December 16 and 18, 2010, the six roll-off containers were transported to Casella's Ontario County Landfill, located in Stanley, New York for disposal. A total of 117.39 tons of soil was disposed of offsite.

### ***Replacement Well Installation***

On November 24, 2010, Parratt-Wolff installed replacement wells TW-02RRR (replaces TW-02RR) and MW-36R (replaces MW-36 and PZ-W) in Area 2 (Figure 9). ARCADIS' Mr. Nathan Smith provided drilling oversight. MW-36R replaces two wells due to the proximity of original wells PZ-W and MW-36. The replacement wells were installed essentially in the same location as the original wells. They will be incorporated into the current Long-Term Hydraulic and COC Monitoring Schedule (Revised Monitoring Schedule; Table 2). The replacement wells were installed using 4.25-inch hollow-stem augers on a Diedrich<sup>®</sup> D-90 ATV-mounted drill rig. Due to the extensive soil information available from previous borings and well installations, except as noted below, the well installations were blind-drilled from 11 to 20 feet bgs. No visual impacts or odors were observed in the soil cuttings or split spoon samples during the replacement well installations. The well construction logs for TW-02RRR and MW-36R, as well as the original well logs, are presented in Attachments C and D, respectively.

In general, the replacement well installations reproduce their previous constructions because their purpose is to obtain groundwater samples in a manner consistent with the original wells. The screen lengths of the replacement wells were required to be installed below the interface between amended backfill and the original soil. A 2-foot-long by 2-inch-diameter split-spoon sampler was used during well installation to confirm this interface (at approximately 10 feet bgs). At both replacement wells, the well screen and filter sand were installed below the amended pea stone interface, and a bentonite seal was installed in the boring annulus above the filter sand and screens to limit vertical hydraulic movement around the well installation. Soil cuttings generated during the replacement well installation was added to a roll-off waste container staged in Area 2 for the soil excavation activities. ARCADIS surveyed the replacement wells on January 11, 2011. Figure 9 presents the locations of the replacement wells within the areal extent of the soil excavation.

### ***Well Decommissioning***

Parratt-Wolff decommissioned monitoring wells/piezometers MW-1, MW-2S, MW-6S, MW-13S, MW-15S, MW-19, MW-22, MW-26S, MW-36, PZ-W, PZ-5S, PZ-9S, PZ-9D, and TW-02RR on November 1, 2, 3, and 24, 2010 (Figure 10). Methods used for decommissioning included overdrilling (MW-1, MW-2S, MW-6S, MW-19, MW-26S, PZ-9S/9D), punch-pull-grout (MW-13S, MW-15S, MW-22), pulling only (MW-36, PZ-W, TW-02RR) and grouting only (PZ-5S). The methods were selected for each well based on the NYSDEC's policy document titled, CP-43: Groundwater Monitoring Well Decommissioning Policy (Well Decommissioning Policy; NYSDEC 2009), and in general compliance with ASTM International Standard D5299-99. Wells/piezometers were overdrilled using 4.25-inch hollow-stem augers on either a Diedrich® D-90 ATV-mounted or Ingersoll Rand® A300 truck-mounted drill rig. The drill rigs were also used to punch-pull-grout or pull wells/piezometers at locations where overdrilling was not required. PZ-W was pulled by the excavation subcontractor (with an excavator) during soil excavation activities conducted from November 1 to 5, 2010.

Decommissioning record forms and inspection forms provided by the Well Decommissioning Policy (NYSDEC2009) were used to record the decommissioning details and are provided in Attachment E.

### **Conclusions**

The process control monitoring data presented in this Biannual Report will continue to be used to monitor the effectiveness of the in-situ aerobic bioremediation treatment activities. The following conclusions are based on the process control monitoring data obtained to date.



- A closed-loop hydraulic cell continues to be maintained in Area 3.
- Operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench.
- Although benzene was detected slightly above the NYSDEC Groundwater Quality Standards at MW-17R, COCs were not detected at concentrations above the NYSDEC Groundwater Quality Standards at any other perimeter sampling locations in October 2010. These results provide another line of evidence that the groundwater in Area 3 is contained in the Area 3 treatment system. The closed-loop hydraulic cell in Area 3 supports this conclusion.
- COC concentrations detected in the groundwater samples collected from Area 1 demonstrate a decrease since the in-situ bioremediation treatment activities began in July 1998. COC concentrations have continued to remain low since the in-situ aerobic bioremediation treatment program began in August 2006. In October 2010, the COCs in this area were mostly non-detect or below their respective NYSDEC Groundwater Quality Standard, including aniline in groundwater at MW-33. These COC concentrations indicate that, for many years, Area 1 has met the NYSDEC Class GA Groundwater Quality Standards for toluene, trichloroethene, methylene chloride, and acetone, which is an objective of the ROD (NYSDEC 2007). More recently, Area 1 has met the NYSDEC Class GA Groundwater Quality Standard for aniline in groundwater, and COC concentrations within saturated soils have been reduced, controlled, or eliminated, in accordance with ROD (NYSDEC 2007) objectives. A few COCs (e.g., N,N-dimethylaniline, benzene, ethylbenzene, and xylene) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards.
- In the downgradient edge of Area 1, aniline was not detected in the groundwater sample from MW-33 during the October 2010 sampling event. Aniline concentrations previously detected in MW-33 have remained below the NYSDEC Groundwater Quality Standard for the six sampling events conducted since November 2007, suggesting that the in-situ aerobic bioremediation treatment program facilitated the reduction of aniline.
- Based on the DO levels measured in Area 1, it does not appear that aerobic conditions (i.e., DO levels greater than 2 ppm) were maintained.
- Overall, the COC groundwater concentrations within Area 2 have decreased during the last nine sampling events since June 2006. The concentrations continue to be relatively low, excluding aniline detected at monitoring location TW-02RR and

MW-36 in October 2010. In addition, N,N-dimethylaniline concentrations remain relatively low at MW-34, and aniline was not detected above NYSDEC Groundwater Quality Standards at this location during October 2010 sampling event. Overall, the results indicate that the in-situ aerobic bioremediation treatment program is facilitating the reduction of aniline in Area 2. COC concentrations within saturated soils have been reduced, controlled, or eliminated. To the extent practicable, for many years Area 2 has met the NYSDEC Class GA Groundwater Quality Standards for acetone, toluene, ethylbenzene, methylene chloride, and trichloroethene, in accordance with ROD objectives (NYSDEC 2007).

- The continuous supply of oxygen to groundwater in Area 2 appears to have reduced the rebound effect in the COC concentrations previously observed when oxygen was used up after introducing periodic injections of hydrogen peroxide to the groundwater. Based on the DO levels measured in Area 2, it does not appear that aerobic conditions (i.e., DO levels greater than 2 ppm) were maintained. The aniline and DO concentrations suggest that the oxygen is being used for the biodegradation processes soon after it is introduced to groundwater, resulting in little surplus of oxygen to increase the groundwater DO levels.
- The aniline concentration at MW-8SR in Area 3 has decreased approximately 99 percent between the end of the anaerobic bioremediation treatment program in June 2006 and the October 2010 sampling events. These results indicate that the in-situ aerobic bioremediation treatment program is facilitating the reduction of aniline in Area 3. Similar to the results in Area 2, the continuous supply of oxygen to groundwater in Area 3 appears to have reduced the rebound affect of COC concentrations. Since June 2006, the average concentrations of aniline detected in Area 3 (MW-8SR, MW-27, and MW-28) have fluctuated, but overall have declined by one magnitude. COC concentrations within saturated soils have been reduced, controlled, or eliminated, and to the extent practicable, for many years Area 3 has met the NYSDEC Class GA Groundwater Quality Standards for acetone, methylene chloride, and trichloroethene, in accordance with the ROD (NYSDEC 2007).
- Based on the DO levels measured in Area 3, it appears that aerobic conditions were not achieved; however, DO levels have increased since initiating the in-situ aerobic bioremediation treatment. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. The aniline concentrations within Area 3 (i.e., MW-8SR, MW-27, and MW-28) have decreased overall between June 2006 and October 2010 suggesting that the in-situ aerobic bioremediation treatment program facilitated the reduction of aniline. The aniline and DO concentrations suggest that oxygen is being used for the biodegradation

processes soon after it is introduced to groundwater, resulting in little surplus of oxygen to increase the groundwater DO levels.

## Recommendations

The in-situ aerobic bioremediation program generally has reduced the aniline and N,N-dimethylaniline, as well as other COC concentrations at the site. ARCADIS recommends that an oxygen source continue to be introduced into Areas 1, 2, and 3. In addition, aniline concentrations are consistently non-detect in Area 1 and the recent non-detection of N,N-dimethylaniline concentration at MW-33 indicate that monthly dilute hydrogen peroxide amendments provided adequate oxygen for the continuation of aerobic degradation of aniline in Area 1; however, concentrations are now at levels that are likely to continue degrading through natural processes. It is recommended that the dilute hydrogen peroxide amendments be continued in Area 1, and the biannual monitoring continue to evaluate the effectiveness of the natural attenuation processes to continue the decrease of site COCs to below NYSDEC Groundwater Quality Standards.

The monitoring results of the current in-situ aerobic bioremediation program indicate that a constant source of oxygen has supported the continued reduction of aniline concentrations in Areas 2 and 3 (i.e., TW-02RR, MW-27, and MW-8SR). The removal of targeted soils, ORC<sup>®</sup> soil amendment, and the added facility to add ORC<sup>®</sup> via standpipes in Area 2, is anticipated to further enhance the degradation of site COCs. ARCADIS recommends maintaining the oxygen infusion system installed in Areas 2 and 3, the oxygen diffuser in the Area 3 equalization tank, and the hydraulic modifications to the Area 3 system. The constant source of oxygen may result in reducing the rebound affect on the aniline concentrations and a faster treatment time than was observed with the dilute hydrogen peroxide amendments. Further recommendations for the oxygen infusion systems in Area 2 and 3, supplemental oxygen amendments in Area 2 (i.e., ORC<sup>®</sup> standpipe amendments), and the hydraulics of the Area 3 system will be made based on results of the next biannual hydraulic monitoring and sampling event and DO level readings.

The Biannual Groundwater Monitoring Program activities will continue at the site (Table 3). The first biannual sampling event of 2011 is scheduled to be conducted during the week of April 4, 2011. In addition, ARCADIS recommends continuing to measure DO levels on site monthly at MW-33 in Area 1; MW-36R and TW-02RRR in Area 2; and MW-27, MW-28, and MW-8SR in Area 3.

Per the November 10, 2010 email from Mr. Long (NYSDEC) to Ms. Penniman (ARCADIS), MW-4S has been added to the Biannual Groundwater Monitoring Program as a downgradient sentinel well for Area 2, and will be sampled for all

COCs except methanol. Due to no detections of COCs at this location above the NYSDEC Groundwater Quality Standards during the October 2010 sampling event, the low hydraulic gradient in the vicinity of this well, and its relatively remote location at the site (Figure 6), ARCADIS recommends including MW-4S in the sampling program every third biannual sampling event. Because MW-4S was sampled during the October 2010 event, the next samples will be collected from this well in spring 2012.

The in-situ aerobic biodegradation treatment activities will continue to be conducted in accordance with the HASP (ARCADIS 2010c).

As discussed in this Biannual Report and summarized in Table 2, the monitoring activities conducted at the site are included in the Biannual Groundwater Monitoring Program and the revised Process Control Monitoring Program. The activities included in the Biannual Groundwater Monitoring Program will continue, and will include biannual collection of chemical and hydraulic data from downgradient perimeter wells/piezometers to determine whether groundwater that contains COC concentrations in excess of their respective NYSDEC Groundwater Quality Standard is migrating beyond the site boundary.

As stated in the April 23, 2009 email from Mr. Long (NYSDEC) to Ms. Penniman (ARCADIS), the process to reclassify this site from a Class 2 Inactive Hazardous Waste Disposal Site (i.e., significant threat to the public health or environment – action required) to a Class 4 Inactive Hazardous Waste Disposal Site (i.e., site properly closed – requires continued management) has not been advanced since Mr. Rider emailed Ms. Penniman on January 5, 2009 with the status of the site's reclassification process. ARCADIS recommends continuing the reclassification process.

If you have any questions or require additional information, please do not hesitate to contact me at 315.671.9210.

Sincerely,



David J. Ulm  
Senior Vice President

DEP/cmb  
Attachments

Copies:

Ms. Sue Lasdin, NYSDEC (w/out Attachment B)  
Mr. Carl Hoffman, NYSDEC (w/out Attachment B)  
Mr. Gregg Townsend, NYSDEC (w/out Attachment B)  
Mr. Chris Mannes, 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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**Attachment A**

Table 1. Summary of Historical  
Groundwater Monitoring Data

Table 2. Summary of Historical  
Groundwater Level Measurements

Figures 1 – 4. Groundwater  
Monitoring Data Summaries

**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>A</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride	
		Top	Bottom											
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5	
MW-1	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			<b>0.7 JN</b>	<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			<b>8 J</b>	<10 J	<b>3 J</b>	<10 J	<b>5.0 J</b>	<1,000	<10 J	<10 J	<10	<10 J	
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<b>10</b>	
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10	
	4/02			<12	<5.0	<5.0	<5.0	<10	<b>990 J</b>	<5	<5	<5	<5	
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	<10	<10	
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5	
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>2 J</b>	<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	<b>0.2 J</b>	<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				
MW-2S	3/88	368.1	353.1	<1,000	<b>1,900</b>	<b>110</b>	<b>610</b>	<b>2,800</b>	<1,000	<10	<10	<10	<10	
	1/89			<1,000	<b>2,000</b>	<b>65</b>	<b>330</b>	<b>1,200</b>	<1,000	<10	<11	<11	<10	
	11/89			<1,000	<b>1,800</b>	<100	<b>360</b>	<b>810</b>	<b>38,000</b>	<100	<100	<100	<100	
MW-3S	3/88	365.1	350.1	<100	<1	<1	<1	<1	<1,000	<b>50</b>	<10	<10	<b>110</b>	
	1/89			<10,000	<100	<b>120</b>	<100	<100	<1,000	<b>1,100</b>	<11	<b>5,570</b>	<b>4,700</b>	
	11/89			<10,000	<100	<100	<100	<100	<1,000	<b>100</b>	<52	<b>440</b>	<b>2,700</b>	
	11/91			<b>2,900</b>	<b>10</b>	<b>10</b>	<b>4.0</b>	<b>31</b>	<1,000	<10	<b>790</b>	<b>170</b>	<10	
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5.0	<b>15</b>	<b>2.0 J</b>	<10	
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10	
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10	
	9/00			<10 J	<b>1 J</b>	<b>2 J</b>	<10 J	<10 J	<1,000	<10 J	<b>2 J</b>	<b>1 J</b>	<10 J	
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10	
	9/01			<10	<b>3 J</b>	<b>8 J</b>	<b>1 J</b>	<b>2 J</b>	<1,000 J	<10	<b>690 D (69)<sup>B</sup></b>	<b>4 J</b>	<10	
	4/02			<12	<5	<5	<5	<10	<b>370 J</b>	<5.0	<b>1.7 J</b>	<5	<5	
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	<10	<10	
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5	
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>4 J</b>	<5	<5	
	6/04			<b>6.0 J</b>	<10	<10	<10	<10	<20	<1,000	<10	<b>0.8 J</b>	<6	<10

See notes on page 15.

**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>A</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-3S	11/04			<25	<10	<10	<10	<20	150 J	<10	4 J	<5.0	<10
(cont'd)	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
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 <sup>C</sup>	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 <sup>D</sup> (Replaced by MW-6S)	1/89	365.5	355.9	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
	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 <sup>D</sup>	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 <sup>D</sup> (Replaced by MW-8S) <sup>E</sup>	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
	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
MW-8SR	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
	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
MW-9 <sup>D</sup> (Replaced by MW-9S)	1/89	365.6	356	1,600	NA	64	130	270	<1,000	<10	660	1,200	1,500
	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

See notes on page 15.



**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-9 <sup>D</sup>	3/00			<10	2 J	2 J	11	21	<1,000 J	<10	2.0 J	9.0 J	<10
(cont'd)	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
MW-10 <sup>D</sup>	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 <sup>D</sup>	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
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 <sup>D</sup>	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) <sup>E</sup>	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 <sup>C</sup>	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 <sup>C</sup>	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

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-17 <sup>C</sup> (Replaced by MW-17R)	11/90	365.7	356.1	<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
	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) <sup>F</sup>	110 (<5) <sup>F</sup>	<5
	10/02			<25 J	14	<10	<10	<20	<1,000	<10	<5 <sup>B</sup>	<5 <sup>B</sup>	<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
	6/04			<25	5 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	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			
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 <sup>H</sup>	<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

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride	
		Top	Bottom											
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5	
MW-18 (cont'd)	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10	
	4/02			<10	<10	<10	<10	<20	<b>720 J</b>	<10	<b>280 D (&lt;5)<sup>F</sup></b>	<b>200 D (&lt;5)<sup>F</sup></b>	<10	
	10/02			<b>6 J</b>	<10	<10	<10	<20	<1,000	<10	<5 <sup>G</sup>	<5 <sup>G</sup>	<10	
	5/03			<12	<5	<5	<5	<5	<b>280 J</b>	<5	<5	<5	<5	
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>0.7 J</b>	<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	<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	<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	<1.0	<3.0
MW-19	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 <sup>H</sup>	<b>5 J</b>	<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 <sup>G</sup>	<5 <sup>G</sup>	<10	
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5	
	10/03			<11	<5	<5	<5	<10	<1,000	<5	<b>51 J</b>	<b>16 J</b>	<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		
MW-20 <sup>C</sup>	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 <sup>C</sup>	11/89	323.65	314.65	<100	<5	<1	<1	<1	<1,000	<1	<10	<10	<1	
MW-22	11/89	368.55	359.55	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1	

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>Δ</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-23S	12/94	364.1	336.1	<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<b>7</b>	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<b>11</b>	<10	<10
	8/97			<b>12</b>	<10	<10	<10	<10	<1,000	<10	<b>92</b>	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<b>56<sup>H</sup></b>	<b>7 J</b>	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<b>10</b>	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<b>2 J</b>	<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	<b>2 J</b>	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<b>2 J</b>	<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 <sup>6</sup>	<5 <sup>6</sup>	<10
	5/03			<62	<25	<25	<25	<50	<b>380 J</b>	<25	<5	<5	<25
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>60</b>	<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			
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 <sup>H</sup>	<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			<b>4 J</b>	<10	<10	<10	<b>2 J</b>	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<b>2 J</b>
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 <sup>a</sup>	<5 <sup>a</sup>	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
6/04	<25	<10	<10	<10	<20	<1,000	<10	<b>1 J</b>	<5	<10			
11/04	--	--	--	--	--	<1,000	--	<5	<5	--			

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride	
		Top	Bottom											
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5	
MW-23I (cont'd)	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	<b>0.6 J</b>	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0	
MW-24S <sup>C</sup> (Replaced by MW-24SR)	12/94	358.4	352.4	<10	<5	<5	<5	<5	<1,000	<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	
	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 <sup>H</sup>	<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 <sup>F</sup>			NS	NS	NS	NS	NS	NS	NS	ND	ND	NS	
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 <sup>G</sup>	<5 <sup>G</sup>	<10	
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>16</b>	<6	<5	
	6/04 <sup>J</sup>			<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	
MW-24D <sup>C</sup> (Replaced by MW-24DR)	12/94	334.4	341.2	<10	<5	<5	<5	<5	<1,000	<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	
	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 <sup>H</sup>	<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 <sup>F</sup>			NS	NS	NS	NS	NS	NS	NS	ND	ND	NS	
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 <sup>G</sup>	<5 <sup>G</sup>	<10	
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>0.5 J</b>	<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	
	MW-25S	8/95	361.2	356.2	<1,000	<5	<5	<5	<5	<1,000	<5	<5	<b>0.7 J</b>	<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	<b>130</b>	<10	<10 J	
6/99				<10 J	<10	<10	<10	<10	<1,000 J	<10	<b>110 J</b>	<b>21 J</b>	<10 J	
7/99				<10 J	<10	<10	<10	<10	<1,000	<10	<b>5 J</b>	<10	<10	
3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10		

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-25S (cont'd.)	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 <sup>6</sup>	<5 <sup>6</sup>	<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	
MW-25D	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
	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	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
	MW-26	12/96	365	355.3	<10	<10	<10	<10	<10	<1,000	<10	<5	<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)

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006, 2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>a</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-28	9/98	363.6	355.6	<5,000 J	<5,000	<5,000	<5,000	<5,000	<b>2,200</b>	<5,000	<b>546 D<sup>h</sup></b>	<b>54</b>	<b>64,000 J</b>
	7/99			<500 J	<500	<500	<500	<500	<1,000	<500	<b>1,100 D</b>	<b>40</b>	<b>39,000 D</b>
	3/00			<10,000	<10,000	<10,000	<10,000	<10,000	<1,000 J	<10,000	<b>1,300 D</b>	<b>30</b>	<b>130,000 J</b>
	9/00			<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<b>540 DJ</b>	<10	<b>8,100 BJ</b>
	3/01			<400	<400	<400	<400	<400	<1,000	<400	<b>3,200 D</b>	<b>7 J</b>	<b>5,900 B</b>
	9/01			<400	<400	<400	<400	<400	<1,000 J	<400	<b>1,000 D</b>	<10	<b>4,700 B</b>
	4/02			<49	<b>8</b>	<b>6</b>	<b>9</b>	<b>10 J</b>	<1,000	<5	<b>33,400 D</b>	<b>57</b>	<b>4,600 D</b>
	10/02			<b>14 J</b>	<b>8 J</b>	<b>6 J</b>	<b>11</b>	<b>12 J</b>	<1,000	<10	<b>2,700 D</b>	R	<10
	5/03			<b>13</b>	<b>4 J</b>	<b>2 J</b>	<b>2 J</b>	<b>8 J</b>	<1,000	<5	<b>1,000 DJ</b>	<b>3 J</b>	<b>52</b>
	10/03			<b>24</b>	<b>11</b>	<b>6</b>	<b>12</b>	<b>13 J</b>	<1,000	<5	<b>1,900 D</b>	<5	<5
	6/04			<b>20 J</b>	<b>4 J</b>	<b>2 J</b>	<b>5 J</b>	<b>4 J</b>	<1,000	<10	<b>910 D</b>	<5	<10
	11/04			<120 (<25)	<50 (4 J)	<50 (<10)	<50 (5 J)	<100 (3 J)	<b>190 J</b>	<50 (<10)	<b>640 DJ</b>	<5	<50 (<10)
	6/05			<b>5.2 J</b>	<b>4.5</b>	<b>1.2 J</b>	<b>4.6</b>	<b>3.9 J</b>	<1,000	<1.0	<b>630</b>	<5.0	<3.0
	11/05			<b>6.8 J (7.8 J)</b>	<b>6.1 (5.8)</b>	<5.0 (<5.0)	<b>4.7 (4.7)</b>	<5.0 (<5.0)	<1,000 (<1,000)	<1.0 (<1.0)	<b>380 J (350 J)</b>	<2.2 (<2.1)	<3.0 (<3.0)
	6/06			<5.0 J (<5.0 J)	<b>6.0 J (6.3 J)</b>	<b>1.2 J (1.3 J)</b>	<b>5.3 J (5.4 J)</b>	<b>4.2 J (4.3 J)</b>	<500 J (<1,000 J)	<1.0 J (<1.0 J)	<b>430 J (530 J)</b>	<2.1 J (<5.0 J)	<3.0 J (<3.0 J)
MW-29	9/98	362.9	345.9	<10	<10	<10	<10	<b>2 J</b>	<1,000	<10	<10	<b>13</b>	<10
	2/99			<b>7 J</b>	<10	<10	<10	<b>1 J</b>	<1,000	<10	<b>5 J</b>	<b>4 J</b>	<10
	7/99			<10	<10	<10	<10	<10	<1,000	<10	<b>2 J</b>	<b>4 J</b>	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<b>450 D</b>	<b>6 J</b>	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<b>24 J</b>	<b>4 J</b>	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<b>30</b>	<b>4 J</b>	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<b>7 J</b>	<b>2 J</b>	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<b>3 J</b>	<b>9</b>	<6
	10/02			<25 J	<10	<10	<10	<20	<1,000	<10	<b>8</b>	R	<b>4 JN</b>
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<b>19</b>	<b>1 J</b>	<3
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>2 J</b>	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<b>3 J</b>	<5	<10
	11/04			<120	<50	<50	<50	<100	<b>420 J</b>	<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			
MW-30	9/98	363.5	355.5	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	2/99			<b>7 J</b>	<10	<10	<10	<10	<1,000	<10	<10	<b>2 J</b>	<10
	7/99			<10	<b>0.7 J</b>	<10	<10	<10	<1,000	<b>0.5 J</b>	<10	<b>1 J</b>	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<b>18</b>	<b>2 J</b>	<b>4 J</b>
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<b>9 J</b>	<b>2 J</b>	<b>2 J</b>
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<b>8 J</b>	<b>2 J</b>	<10
	9/01			<b>4 J</b>	<b>2 J</b>	<10	<10	<10	<1,000 J	<10	<b>8 J</b>	<b>1 J</b>	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<b>250</b>	<b>210</b>	<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	<b>18</b>	0.6 J	<b>8 J</b>

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>Δ</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-30 (cont'd.)	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
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
	MW-32	9/98	364	356	<10	16	2 J	5 J	3 J	<1,000	<10	6,300 D	4 J
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
9/00				<10 J	12 J	<10 J	<10 J	<10 J	<1,000	<10 J	4,500 D	<10	<10 J
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
MW-33		9/98	344.1	356.1	<10	<10	<10	<10	<10	<1,000	<10	9 J	6 J
	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

See notes on page 15.



**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006, 2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>Δ</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-33 (cont'd)	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
	9/98	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	
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	

See notes on page 15.

**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-36	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
	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			
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			
TW-02 <sup>C</sup> (Replaced by TW-02R) <sup>E</sup>	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	14,000 JN	<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

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>Δ</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
TW-02 (cont'd.)	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
TW-02RRR	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
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
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) <sup>f</sup>	<5 (<5) <sup>f</sup>	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 <sup>s</sup>	<5 <sup>s</sup>	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5

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**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006,  
2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride	
		Top	Bottom											
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5	
PZ-4S (cont'd.)	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	<b>0.6 J</b>	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0	
PZ-5D	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	<10	<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 <sup>H</sup>	<10	<10	<12
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 <sup>S</sup>	<5 <sup>S</sup>	<10	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<b>46</b>	<5	<5	<5
	6/04 <sup>J</sup>			<25	<10	<10	<10	<20	<1,000	<10	<5	<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	<1.0	<3.0
	11/05			<5.0 J	<1.0	<b>0.7 J</b>	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<1.0 J	<3.0
	PZ-5S			11/89	361.42	356.52	<100	<1	<1	<1	<1	<1,000	<1	<11
12/94		<10	<5	<5			<5	<5	<200	<5	<10	<10	<5	
2/96		<1,000	<10	<10			<10	<10	<1,000	<10	<5	<10	<10	
2/97		<b>5 J</b>	<10	<10			<10	<10	<1,000	<10	<5	<10	<10	
9/98		<10	<10	<10			<10	<10	<1,000	<10	<5 <sup>H</sup>	<10	<10	<12
6/99		<10 J	<10	<10			<10	<10	<1,000	<10	<10 J	<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	<10 J
9/00		<10 J	<10 J	<10 J			<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10	<10 J
9/01		<b>7 J</b>	<10	<10			<10	<10	<1,000	<10	<10	<10	<10	<10
10/02		<25 J	<10	<10			<10	<20 J	<1,000	<10	<5 <sup>S</sup>	<5 <sup>S</sup>	<10	<10
10/03		<12	<5	<5			<5	<10	<1,000	<5	<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	<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	<1.0 J	<3.0
PZ-8S <sup>I</sup>		9/98	362.6	357.7			<10	<10	<10	<10	<10	<10	<10	<10
PZ-11D <sup>D</sup>	11/89	352.09	347.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1	
PZ-11S <sup>D</sup>	11/89	359.09	354.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1	
PZ-12D <sup>D</sup>	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	<10	<1
	11/91			<100	<1	<1	<1	<1	<b>3</b>	<1	<10	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<10	<1
PZ-12S <sup>D</sup>	11/89	360	355.1	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<b>6</b>	<1	<10	<10	<10	<b>5</b>
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<10	<1
PZ-13D <sup>C</sup>	11/89	349.4	344.4	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1	
PZ-13S <sup>C</sup>	11/89	359.5	354.5	<100	<1	2	<1	2	<1,000	<1	<11	<11	<1	

See notes on page 15.

**Table 1. Summary of Historical Groundwater Monitoring Data, March 1988 through June 2006, 2010 Biannual Process Control Monitoring 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 (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:**

- <sup>A</sup> = 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.
- <sup>B</sup> = 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.
- <sup>C</sup> = 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.
- <sup>D</sup> = 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).
- <sup>E</sup> = 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.
- <sup>F</sup> = 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.
- <sup>G</sup> = MW-17R, MW-18, MW-19, MW-23S, MW-23I, MW-24DR, MW-24SR, MW-25S, PZ-4S, PZ-5S and PZ-5D wells/piezometers 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.
- <sup>H</sup> = MW-18, MW-19, MW-23I, MW-23S, MW-24DR, 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.
- <sup>I</sup> = Piezometer PZ-8S was decommissioned 8/00.
- <sup>J</sup> = 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.

**Abbreviations:**

- AMSL = Above mean sea level (NGVD of 1929).  
 NA = Not available.  
 ND = Not detected.  
 NS = Not sampled.

**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.)

**Table 2. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006,  
2010 Biannual Process Control Monitoring 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 2. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006,  
2010 Biannual Process Control Monitoring 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 2. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006,  
2010 Biannual Process Control Monitoring 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

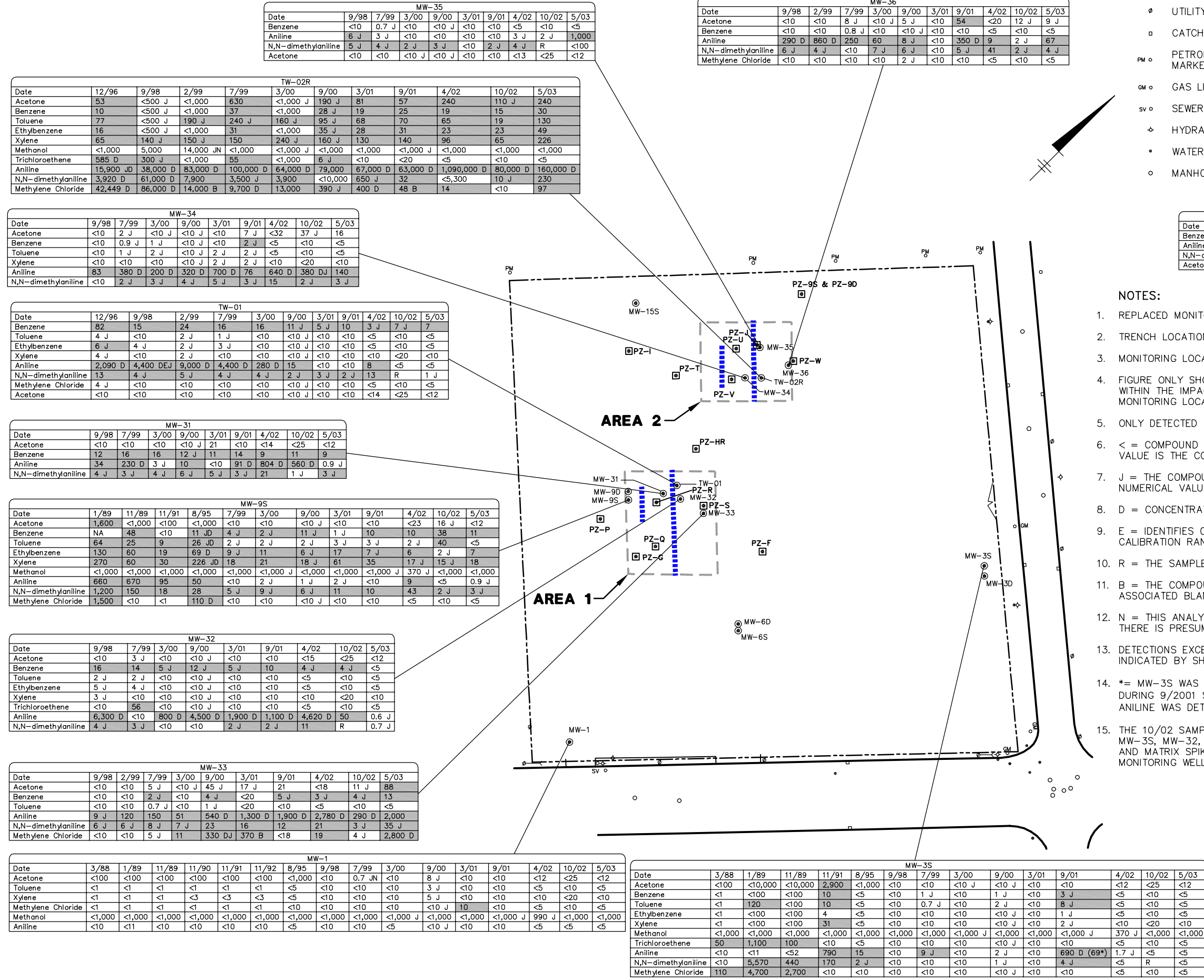
See notes on page 4.



**Table 2. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006,  
2010 Biannual Process Control Monitoring 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.



**LEGEND:**

- Ø 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

- 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.



McKESON ENVIROSYSTEMS  
FORMER BEAR STREET FACILITY  
SYRACUSE, NEW YORK

**BIANNUAL PROCESS CONTROL MONITORING REPORT**

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

FIGURE  
**1**

CITY: SYRACUSE DIVGROUP: ENVCAD DB: NSMITHGALL, L. FORAKER LD: PIC: D. ULM PM: D. PENNIMAN TM: D. PENNIMAN LTR: ON="OFF" REF: G:\ENVCAD\SYRACUSE\ACT\B0026003\000000190\DWG\MARCH09\26003001.DWG LAYOUT: 2 SAVED: 8/25/2009 11:19 PM ACADVER: 17.05 (LMS TECH) PAGES: 21 PLOT: 17 OF 21 PAGES: 21 PLOT: 17 OF 21

Table with 10 columns (Date, 9/98, 7/99, 3/00, 9/00, 3/01, 9/01, 4/02, 10/02, 5/03) and 8 rows (Acetone, Benzene, Toluene, Ethylbenzene, Xylene, Aniline, N,N-dimethylaniline, Methylene Chloride, Trichloroethene) for MW-27.

Table with 10 columns (Date, 11/89, 12/94, 2/96, 2/97, 9/98, 6/99, 7/99, 9/00, 9/01, 10/02) and 2 rows (Acetone) for PZ-55.

Table with 10 columns (Date, 11/89, 12/94, 2/96, 2/97, 9/98, 9/00, 9/01, 10/02) and 2 rows (Aniline) for PZ-50.

Table with 10 columns (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) and 3 rows (N,N-dimethylaniline, Acetone, Aniline) for MW-19.

Table with 10 columns (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) and 2 rows (Aniline, N,N-dimethylaniline) for PZ-45.

Table with 10 columns (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) and 2 rows (N,N-dimethylaniline) for MW-24DR.

Table with 10 columns (Date, 12/94, 8/95, 2/96, 2/97, 9/98, 7/99, 9/00, 9/01, 8/02, 10/02) and 2 rows (Aniline) for MW-24SR.

Table with 10 columns (Date, 12/94, 8/95, 2/96, 2/97, 9/98, 6/99, 7/99, 3/00, 9/01, 6/02, 10/02) and 2 rows (Aniline) for MW-24SR.

Table with 10 columns (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) and 8 rows (Acetone, Benzene, Trichloroethene, Methanol, Aniline, N,N-dimethylaniline, Methylene Chloride) for MW-17R.

Table with 10 columns (Date, 9/98, 2/99, 7/99, 3/00, 9/00, 3/01, 9/01, 4/02, 10/02, 5/03) and 6 rows (Acetone, Benzene, Trichloroethene, Aniline, N,N-dimethylaniline, Methylene Chloride) for MW-30.

Table with 10 columns (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) and 4 rows (Methanol, Aniline, N,N-Dimethylaniline, Acetone) for MW-18.

Table with 10 columns (Date, 9/98, 2/99, 7/99, 3/00, 9/00, 3/01, 9/01, 4/02, 10/02, 5/03) and 5 rows (Acetone, Xylene, Aniline, N,N-dimethylaniline, Methylene Chloride) for MW-29.

Table with 10 columns (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) and 4 rows (Acetone, Aniline, N,N-dimethylaniline, Methanol) for MW-23S.

Table with 10 columns (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) and 4 rows (Acetone, Xylene, Methylene Chloride, Aniline) for MW-23I.

Table with 10 columns (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) and 2 rows (Aniline, N,N-dimethylaniline) for MW-25S.

Table with 10 columns (Date, 8/95, 10/95, 8/96, 8/97, 2/99, 3/00, 9/00, 3/01, 4/02, 5/03) and 4 rows (Acetone, Trichloroethene, N,N-dimethylaniline, Aniline) for MW-25D.

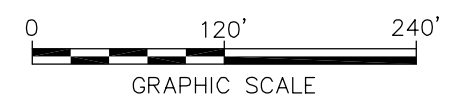
Table with 10 columns (Date, 1/89, 11/89, 11/91, 8/95, 9/98, 2/99, 7/99, 3/00, 9/00, 3/01, 9/01, 4/02, 10/02, 5/03) and 10 rows (Acetone, Benzene, Toluene, Ethylbenzene, Xylene, Methanol, Trichloroethene, Aniline, N,N-dimethylaniline, Methylene Chloride) for MW-8S.

Table with 10 columns (Date, 9/98, 7/99, 3/00, 9/00, 3/01, 9/01, 4/02, 10/02, 5/03) and 10 rows (Benzene, Toluene, Ethylbenzene, Xylene, Methanol, Aniline, N,N-dimethylaniline, Methylene Chloride, Acetone) for MW-28.

Table with 10 columns (Date, 3/88, 1/89, 11/89, 11/91, 8/95, 7/99, 3/00, 9/00, 3/01, 9/01, 4/02, 10/02, 5/03) and 10 rows (Acetone, Benzene, Toluene, Ethylbenzene, Xylene, Methanol, Trichloroethene, Aniline, N,N-dimethylaniline, Methylene Chloride) for MW-3S.

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, GROUNDWATER MONITORING WELL, PIEZOMETER, BIENNIAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION, APPROXIMATE BOUNDARY OF AREA, GROUNDWATER WITHDRAWAL TRENCH, GROUNDWATER INFILTRATION TRENCH, PIPING TO BUILDING, PIPING FROM BUILDING, SAMPLE IDENTIFICATION.

- 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.



McKESSON ENVIROSYSTEMS FORMER BEAR STREET FACILITY SYRACUSE, NEW YORK BIENNIAL PROCESS CONTROL MONITORING REPORT GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREA 3 ARCADIS FIGURE 2



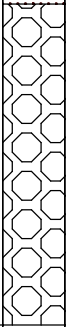
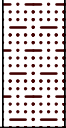
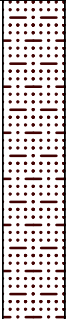


ARCADIS

**Attachment C**

Installed Well Logs

<b>Date Start/Finish:</b> 11/24/2010 <b>Drilling Company:</b> Parratt-Wolff <b>Driller's Name:</b> Layne Pech <b>Drilling Method:</b> 4.25 inch HSA <b>Sampling Method:</b> 2 feet x 2 inch Split Spoon <b>Rig Type:</b> Diedrich D90 ATV-mounted	<b>Northing:</b> 1115712.5 <b>Easting:</b> 609834.1 <b>Casing Elevation:</b> 375.58 feet AMSL  <b>Borehole Depth:</b> 20 feet bgs <b>Surface Elevation:</b> 373.6 feet AMSL  <b>Descriptions By:</b> Nathan Smith	<b>Well/Boring ID:</b> MW-36R  <b>Client:</b> McKesson Envirosystems  <b>Location:</b> Bear Street Site Syracuse, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	375							1 inch Schedule 40 PVC Cap
	0						Blind drilled from 0-9 feet bgs; Clean FILL (from excavation/backfill activities November 2010).	
	370	1	0-9	NA	ND		ORC amended Pea GRAVEL (from excavation/backfill activities November 2010)	Cement / Bentonite Grout (0-9 feet bgs) 1 inch Schedule 40 PVC Riser (2' ags - 12' bgs)
	5							
	365						Brown Silty CLAY, little fine to medium Sand, trace Pea Gravel, saturated.	Bentonite Seal (9-11 feet bgs)
	10	2	9-11	1.0	ND			
							Blind drilled from 11 to 20 feet bgs; See soil description from PZ-W (installed 1997).	
	360	3	11-20	NA	ND			#0 Silica Filter Sand (11-20 feet bgs) 1 inch Schedule 40 PVC 0.010 inch slotted Screen (12-20' bgs)
	15							

**Remarks:** bgs = below ground surface, ags = above ground surface, ND = non-detect, HSA = hollow stem auger, AMSL = above mean sea level.

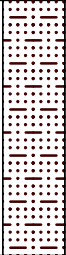
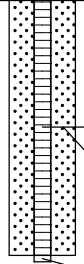
Coordinates are based on the project datum.



Site Location:

Bear Street Site  
Syracuse, New York

Borehole Depth: 20 feet bgs

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	355	3	11-20	NA	ND		Blind drilled to 20 feet bgs; See soil description from TW-02 (installed 1996).	 <p>1 inch Schedule 40 PVC 0.010 inch slotted Screen (12-20' bgs) #0 Silica Filter Sand (11-20 feet bgs) 1 inch Schedule 40 PVC Cap (20-20.1' bgs)</p>
	20						End of boring at 20 feet bgs.	
	350							
	25							
	345							
	30							
	340							
	35							



**Remarks:** bgs = below ground surface, ags = above ground surface, ND = non-detect, HSA = hollow stem auger, AMSL = above mean sea level.

Coordinates are based on the project datum.



<b>Date Start/Finish:</b> 11/24/2010 <b>Drilling Company:</b> Parratt-Wolff <b>Driller's Name:</b> Layne Pech <b>Drilling Method:</b> 4.25 inch HSA <b>Sampling Method:</b> 2 feet x 2 inch Split Spoon <b>Rig Type:</b> Diedrich D90 ATV-mounted	<b>Northing:</b> 1115696.0 <b>Easting:</b> 609818.0 <b>Casing Elevation:</b> 375.55 feet AMSL  <b>Borehole Depth:</b> 20 feet bgs <b>Surface Elevation:</b> 373.6 feet AMSL  <b>Descriptions By:</b> Nathan Smith	<b>Well/Boring ID:</b> TW-02RRR  <b>Client:</b> McKesson Envirosystems  <b>Location:</b> Bear Street Site Syracuse, New York
--	--	---

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
375								
370		1	0-9	NA	ND		Blind drilled from 0-9 feet bgs; Clean FILL (from excavation/backfill activities November 2010).  ORC amended Pea GRAVEL (from excavation/backfill activities November 2010)	
365		2	9-11	1.0	ND		Brown Silty CLAY, little fine to medium Sand, trace Pea Gravel, saturated.	
360		3	11-20	NA	ND		Blind drilled from 11 to 20 feet bgs; See soil description from TW-02 (installed 1996).	

**Remarks:** bgs = below ground surface, ags = above ground surface, ND = non-detect, HSA = hollow stem auger, AMSL = above mean sea level.

Coordinates are based on the project datum.  
 Elevations are based on the National Geodetic Vertical Datum of 1929.



Site Location:

Bear Street Site  
Syracuse, New York

Borehole Depth: 20 feet bgs

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
355		3	11-20	NA	ND		Blind drilled to 20 feet bgs; See soil description from TW-02 (installed 1996).	<p>2 inch Schedule 40 PVC 0.010 inch slotted Screen (12-20' bgs)</p> <p>#0 Silica Filter Sand (11-20 feet bgs)</p> <p>2 inch Schedule 40 PVC Cap (20-20.1' bgs)</p>
20							End of boring at 20 feet bgs.	
350								
25								
345								
30								
340								
35								



**Remarks:** bgs = below ground surface, ags = above ground surface, ND = non-detect, HSA = hollow stem auger, AMSL = above mean sea level.

Coordinates are based on the project datum.  
Elevations are based on the National Geodetic Vertical Datum of 1929.

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**Attachment D**

Replaced Well Logs

<b>Date Start/Finish:</b> 12-10-97 / 12-10-97 <b>Drilling Company:</b> Parratt Wolff, Inc. <b>Driller's Name:</b> Jim Lansing <b>Drilling Method:</b> Hollow Stem Auger  <b>Auger Size:</b> ID 3.25 in. <b>Rig Type:</b> CME 850 <b>Spoon Size:</b> 2 in.	<b>Well Casing:</b> 376.23 feet  <b>Borehole Depth:</b> 19.0 ft. <b>Ground Surface:</b> 373.6 feet  <b>Geologist:</b> Keith White	<b>Well No:</b> MW-38  <b>Client:</b> McKesson EnviroSystems  <b>Location:</b> Bear Street Facility Syracuse, New York
--	--	---

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 373.6 ft.								GROUND SURFACE	
	370								1-in diameter Sch. 40 PVC well casing (approx 2'ags to 10.0' bgs)  Neat Portland Cement/Bentonite grout (0 to 6.0' bgs)  Hydrated bentonite seal (6.0' to 9.0' bgs)  1-in diameter Sch. 40 PVC 0.01-inch slot well screen (10.0' to 18.0' bgs)  Grade #0 Merie silica sand pack (9.0' to 18.0' bgs)
	365							<i>No sampling conducted due to the availability of the boring log for adjacent piezometer PZ-W. See log of piezometer PZ-W for stratigraphic description.</i>	
	360								

**BBL**  
 BLASLAND, BOUCK & LEE, INC.  
 engineers & scientists

**Remarks:**  
 All elevations referenced to Mean Sea Level.  
 bgs - Below Ground Surface. ags - Above Ground Surface.

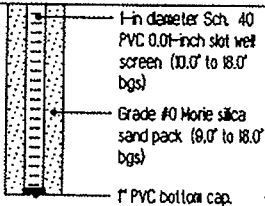
Saturated Zones		
Date / Time	Elevation	Depth

**Client:**  
McKesson EnviroSystems

**Well No:** MW-38

**Location:**  
Bear Street Facility  
Syracuse, New York

**Borehole Depth = 18.0 ft.**

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Geologic Column	Stratigraphic Description	Well Construction
18.0	355							No sampling conducted due to the availability of the boring log for adjacent piezometer PZ-W.	 <p>1" diameter Sch. 40 PVC 0.01-inch slot well screen (10.0' to 18.0' bgs) Grade #0 Merie silica sand pack (8.0' to 18.0' bgs) 1" PVC bottom cap.</p>
0.0	350							Boring terminated at 18' below ground surface.	
20.0	345								
30.0	340								
35.0									

**BBL**  
BLASLAND, BOUCK & LEE, INC.  
engineers & scientists

Remarks:

**Saturated Zones**

Date / Time	Elevation	Depth

Date Start/Finish: 12-10-97 / 12-10-97 Drilling Company: Parratt Wolff, Inc. Driller's Name: Jim Lansing Drilling Method: Hollow Stem Auger  Auger Size: ID 3.25 in. Rig Type: CME 850 Spoon Size: 2 in.	Well Casing: 375.78 feet  Borehole Depth: 20 ft. Ground Surface: 373.5 feet  Geologist: Keith White	Piezometer No: PZ-W  Client: McKesson Envirosystems  Location: Bear Street Facility Syracuse, New York
---	--	---

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	Geologic Column	Stratigraphic Description	Piezometer Construction
	gs elevation 373.5 ft.							GROUND SURFACE	
	370							No sampling conducted above 6' bgs.	
	5								1-in diameter Sch. 40 PVC well casing (25' ags to 14 bgs)
	365	S-1	11 5 8 8	11	0.9		Brown SILT, SAND, some gravel, medium dense, moist (fill). Black SILT and CLAY, trace wood fragments.	Neat Portland Cement/Bentonite grout (25' to 13' bgs).	
	0	S-2	5 8 9 9	15	0.8		Gray SILT, some clay, trace peat fragments, rust colored mottling, stiff, moist.		
	0	S-3	3 4 3 3	7	0.7		Little fine SAND as thin seams.	Hydrated bentonite seal (13' to 13' bgs).	
	360	S-4	WOH 1 1 2	2	2.0		Gray fine SAND and SILT, frequent shell fragments, little to trace organic matter, loose, wet.	Grade #0 Marine silica sand pack (13' to 13' bgs)	
	5	S-5	3 3	5	2.0				



**Remarks:**  
 All elevations referenced to Mean Sea Level.  
 NA = Not Available. bgs = Below Ground  
 Surface. ags = Above Ground Surface. WOH =  
 Weight of Hammer.

Saturated Zones		
Date / Time	Elevation	Depth

Client:  
McKesson Envirosystems

Piezometer No: PZ-W  
Borehole Depth = 20 ft.

Location:  
Bear Street Facility  
Syracuse, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Geologic Column	Stratigraphic Description	Piezometer Construction
		S-5		2 3	5	2.0		At 14' bgs, gray fine to medium SAND, little silt, trace coarse sand, trace shell fragments, loose, wet.	
							No sampling conducted (16-18' bgs.)		
355		S-6	WOH	2 3 3	5	2.0		Gray fine SAND, some medium sand, little silt, loose, wet.	
20								Gray fine SAND and SILT, peat partings, shell fragments, wet.	
								Boring terminated at 18' bgs, spoon hole to 20' bgs.	
350									
25									
345									
30									
340									
35									



Remarks:

Saturated Zones

Date / Time	Elevation	Depth

<b>Date Start/Finish:</b> 8/10/04 <b>Drilling Company:</b> Parratt Wolff <b>Driller's Name:</b> Robert Baldoze <b>Drilling Method:</b> HSA and DRC 3 7/8" Tricone Bit <b>Bit Size:</b> 4 1/4" <b>Auger Size:</b> 4 1/4" HSA <b>Rig Type:</b> CME 850 <b>Sampling Method:</b> NA	<b>Northing:</b> NA <b>Easting:</b> NA <b>Casing Elevation:</b> NA  <b>Borehole Depth:</b> 20' below grade <b>Surface Elevation:</b> 373.3'  <b>Geologist:</b> Ricardo Jaimes	<b>Boring ID:</b> TW-02RR  <b>Client:</b> McKesson Envirosystems  <b>Location:</b> Bear Steet Facility Syracuse, NY
--	--	--

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
375											Stick up with protective casing with locking cover
0										No samples collected from 0' - 20.0' bgs. See log for TW-02 for Stratigraphic description.	2" ID Sch. 40 PVC Riser (2.5' ags - 10.0' bgs)
370											2" ID Sch. 40 PVC Riser (2.5' ags - 10.0' bgs)
5											Cement-Bentonite Grout (0' - 6.0' bgs)
365											Hydrated bentonite chips seal (6.0' - 8.0' bgs)
10											Grade #00 Silica Sand Pack (8.0' - 20.0' bgs)
360											2" 0.010 Slot Sch. 40 PVC Screen (10.0' - 20.0' bgs)
15											

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 engineers & scientists

**Remarks:** NA = Not Applicable/Available; bgs = below ground surface;  
 Tricone bit was used to drill the interval between 7.0' and 20' bgs.



Client: McKesson EnviroSystems  
 Site Location: Bear Steet Facility, Syracuse, NY  
 Well/ Boring ID: TW-02RR  
 Borehole Depth: 20' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/In/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
355										No samples collected from 0' - 20.0' bgs. See log for TW-02 for Stratigraphic description.	<p>2" 0.010 Slot Sch. 40 PVC Screen (10.0' - 20.0' bgs)</p> <p>Grade #00 Silica Sand Pack (8.0' - 20.0' bgs)</p> <p>PVC Bottom cap</p>
20											
350											
25											
345											
30											
340											
35											



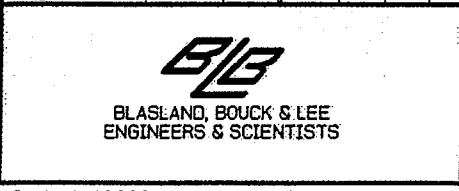
**Remarks:** NA = Not Applicable/Available; bgs = below ground surface; Tricone bit was used to drill the interval between 7.0' and 20' bgs.

**Date Start/Finish:** 12/10/96 - 12/10/96  
**Drilling Company:** Parratt Wolff  
**Driller's Name:**  
**Drilling Method:** Hollow Stem Auger  
**Bit Size:** NA-in. **Auger Size:** 4.25-in. **ID**  
**Rig Type:**  
**Spoon Size:** 2-in.  
**Hammer Weight:** 140-lb  
**Height of Fall:** 30-in.

**Northing:** NA  
**Easting:** NA  
**Well Casing Elev.:** 375.96 ft.  
**Corehole Depth:**  
**Borehole Depth:** 20.0 ft.  
**Ground Surface Elev.:** 373.9 ft.  
  
**Geologist:** Karen Goldenberg

**Well No.:** TW-02-98  
  
**Site:**  
 Syracuse, New York  
  
**Client:**  
 McKesson  
 McKesson-Bear Street

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Specific Conductance (mhos)	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 373.9 ft.										GROUND SURFACE	Steel Protective Casing
		1		5 7 8 5	15	1.2	0.0			(0-7.3') Brown fine SAND and fine GRAVEL, some Silt, trace medium Gravel and medium to coarse Sand, wet.  Mostly fine Sand, wet to saturated.	Cement/Bentonite Grout 0.0' to 5.0' bgs
	370	2		7 7 8 14	15	0.8	0.0			Very wet.	2-in. diameter Schedule 40 PVC Riser 2.06' bgs to 10.0' bgs
5		3		16 13 13 15	26	1.0	0.0			Large Gravel piece, moist. Very wet.	Bentonite Seal 5.0 to 6.7' bgs
		4		6 4 4 3	8	1.2	0.0			(7.3-8.0') Gray SILT and CLAY, black and purple staining, soft, moist to wet.	Borehole diameter 10"
	365	5		5 3 3 5	6	0.0	NA			(8.0-12.0') No recovery.	#0 Morie Sand Pack 6.7' to 20.0' bgs
10		6		8 8 5 8	13	0.0	NA			(12.0-14.9') Gray SILT and CLAY, black and purple staining, little Sand and fine Gravel, wet, soft.	Schedule 40 2-in. diameter 0.010 in. slotted PVC Screen 10.0' to 19.7' bgs
	360	7		9 8 8 9	16	1.0	0.0				
15		8		8 5	9	1.2	0.0				



**Remarks:**  
 ags = above ground surface,  
 bgs = below ground surface,  
 NA = not available.

Water Levels		
Date / Time	Elevation	Depth
3/18/97	366.78	7.12 ↓
NA	NA	
NA	NA	

Client:  
 McKesson  
 McKesson-Bear Street  
 Site:  
 Syracuse, New York

Well No. TW-02-98  
 Total Depth = 20.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Specific Conductance (mhos)	Geologic Column	Stratigraphic Description	Well Construction
		8		4	9	1.2	0.0			(14.9-19.2') Gray SAND, little Silt, saturated.	<p>#10 Merie Sand Pack 6.7' to 20.0' bgs</p> <p>Schedule 40 2-in. diameter 0.010 in. slotted PVC Screen 10.0' to 19.7' bgs</p> <p>0.3' End Cap 19.7' to 20.0' bgs</p>
		9		1 1 2 1	3	2.0	0.0		Little Gravel. 0.2' seam of Silt and Clay.		
	355	10		5 2 2 3	4	2.0	0.0				
20									(19.2-20.0') SILT and CLAY. At 19.7', wood fragments. Boring terminated at 20.0' bgs.		
	350										
	25										
	345										
	30										
	340										
	35										



Remarks:  
 ags = above ground surface,  
 bgs = below ground surface,  
 NA = not available.

Water Levels		
Date / Time	Elevation	Depth
3/18/97	366.78	7.12 ▼
NA	NA	
NA	NA	

ARCADIS

**Attachment E**

Well Decommissioning Records

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <i>MCKESSON BEAR STREET</i>	Well I.D.: <i>MW-1</i>
Site Location: <i>ARKE SYRACUSE, NY</i>	Driller: <i>Lee Pirood</i>
Drilling Co.: <i>PALLATT WOLFF</i>	Inspector: <i>AMS (ARCADIS)</i>
	Date: <i>11/1/10</i>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

**OVERDRILLING**

Interval Drilled	<i>0-20'</i>
Drilling Method(s)	<i>4 1/4" HSA</i>
Borehole Dia. (in.)	<i>6"</i>
Temporary Casing Installed? (y/n)	<i>N</i>
Depth temporary casing installed	<i>-</i>
Casing type/dia. (in.)	<i>-</i>
Method of installing	<i>-</i>

**CASING PULLING**

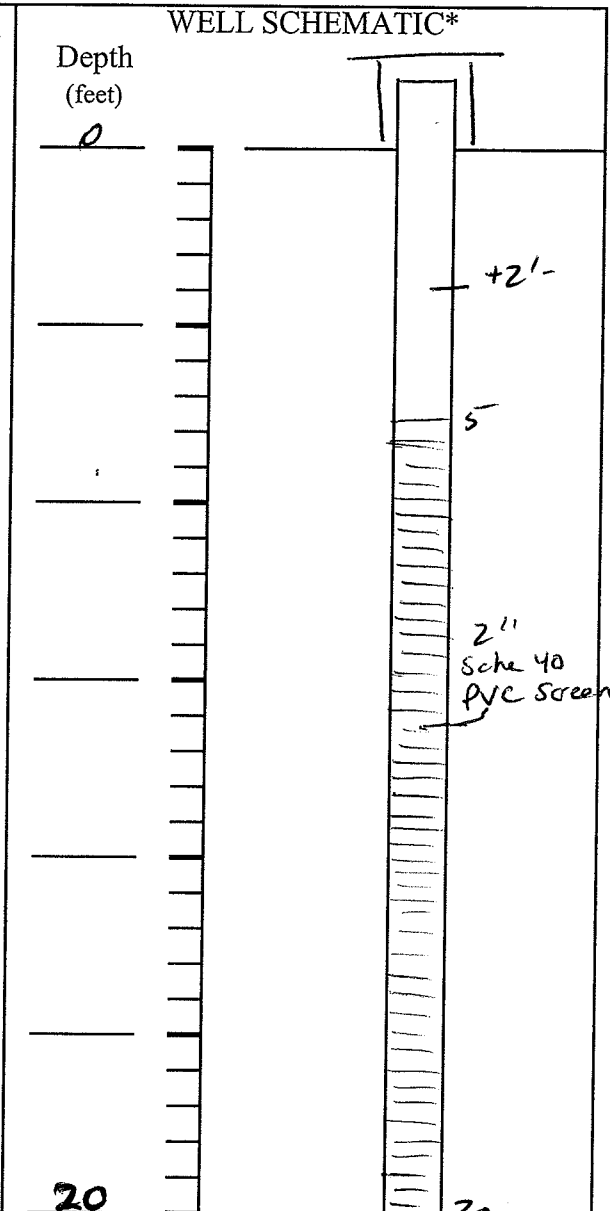
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	

**CASING PERFORATING**

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

**GROUTING**

Interval grouted (FBLS)	
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	<i>30</i>
Quantity of cement used (lbs.)	<i>376</i>
Cement type	<i>I/II</i>
Quantity of bentonite used (lbs.)	<i>5</i>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	<i>15 gal 30 gal</i>



**COMMENTS:** *Lost about 4' of screen*

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

FIGURE 1

SITE NAME: MCKESSON BEAR ST.

SITE ID: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

DATE/TIME: 11/11/10 1400

WELL ID: MW-1

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... ND (PID)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 2' steel  
 PROTECTIVE CASING MATERIAL TYPE: Steel 4"  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....		X
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		X
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 21.21  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 7'  
 MEASURE WELL DIAMETER (Inches): 2"  
 WELL CASING MATERIAL: PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE —  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
About 15' from perimeter fence (South corner of site)

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
deteriorated concrete pad, fenced-in field.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
—

REMARKS:  
—

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <i>MCKESSON BEAR ST</i>	Well I.D.: <i>MW-2S</i>
Site Location: <i>SYRACUSE N.Y.</i>	Driller: <i>Lee Perrod</i>
Drilling Co.: <i>PARRATT-WOLF</i>	Inspector: <i>Nathan Smith (ARCADIS)</i>
	Date: <i>11/2/10</i>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	<i>0-21</i>
Drilling Method(s)	<i>4 1/4" H.S.A</i>
Borehole Dia. (in.)	<i>6"</i>
Temporary Casing Installed? (y/n)	<i>N</i>
Depth temporary casing installed	<i>-</i>
Casing type/dia. (in.)	<i>-</i>
Method of installing	<i>-</i>

CASING PULLING

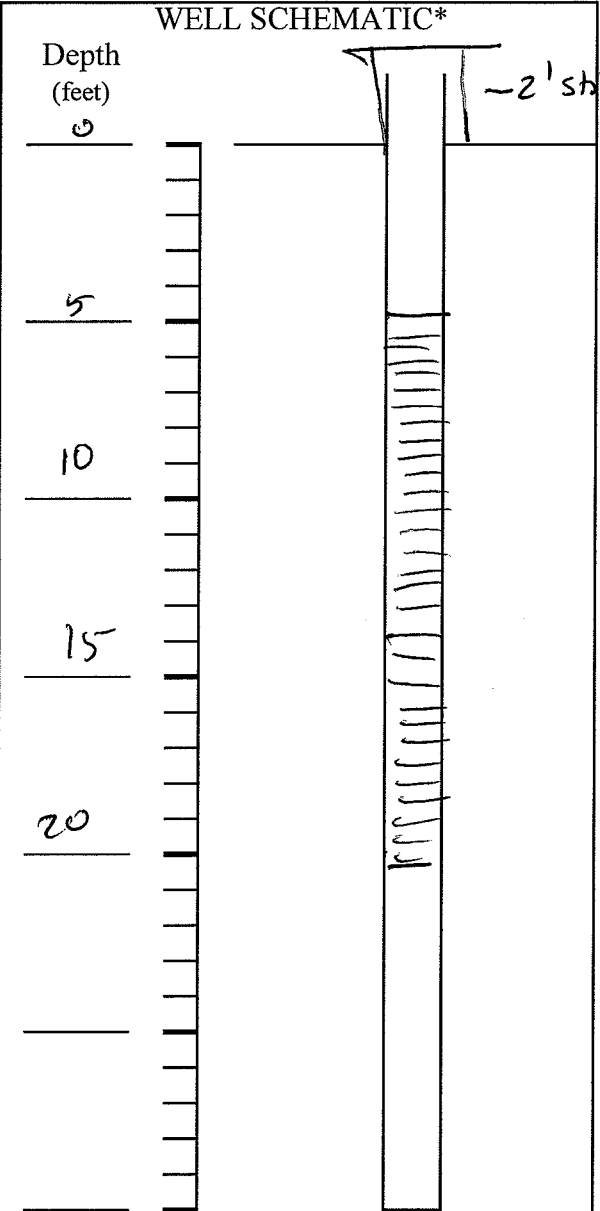
Method employed	<i>/</i>
Casing retrieved (feet)	
Casing type/dia. (in)	

CASING PERFORATING

Equipment used	<i>/</i>
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLs)	<i>0-21</i>
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	<i>~40</i>
Quantity of cement used (lbs.)	<i>(9) 47 lb bags</i>
Cement type	<i>I/II</i>
Quantity of bentonite used (lbs.)	<i>10 lbs</i>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	<i>35</i>



**COMMENTS:**  
*Petroleum-like odor from 15-20' bgs (PID: 16-20ppm)*

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

*Parratt-Wolf*  
Drilling Contractor

Department Representative

SITE NAME: MCILLESSON BERM ST. FIGURE 1

SITE ID.: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_  
DATE/TIME: 11/2/10 0800  
WELL ID.: MW-25

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

WELL VISIBLE? (If not, provide directions below) .....  
WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

YES	NO
X	
X	
X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: MW-2

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
X	X
X	
X	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

ND (PID)  
steel / 2'  
4"

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
	X
	-
	-
	-
X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

20.5'  
7'  
2"  
PVC  
Good  
-  
-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

IN FENCED IN FIELD (SITE AREA)

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

possible former gas-line (abandoned)

REMARKS:



**FIGURE 3**  
**WELL DECOMMISSIONING RECORD**

Well Name: <i>MCKESSON BEAR ST</i>	Well I.D.: <i>MW-6S</i>
Site Location: <i>SYRACUSE NY</i>	Driller: <i>Lee Penrod</i>
Drilling Co.: <i>Parratt Wolff</i>	Inspector: <i>NPS (ACCADIS)</i>
Date: <i>11/1/10</i>	

**DECOMMISSIONING DATA**  
(Fill in all that apply)

**OVERDRILLING**

Interval Drilled	<i>0-20'</i>
Drilling Method(s)	<i>4 1/4" M.S.A</i>
Borehole Dia. (in.)	<i>6"</i>
Temporary Casing Installed? (y/n)	<i>N</i>
Depth temporary casing installed	<i>-</i>
Casing type/dia. (in.)	<i>-</i>
Method of installing	<i>-</i>

**CASING PULLING**

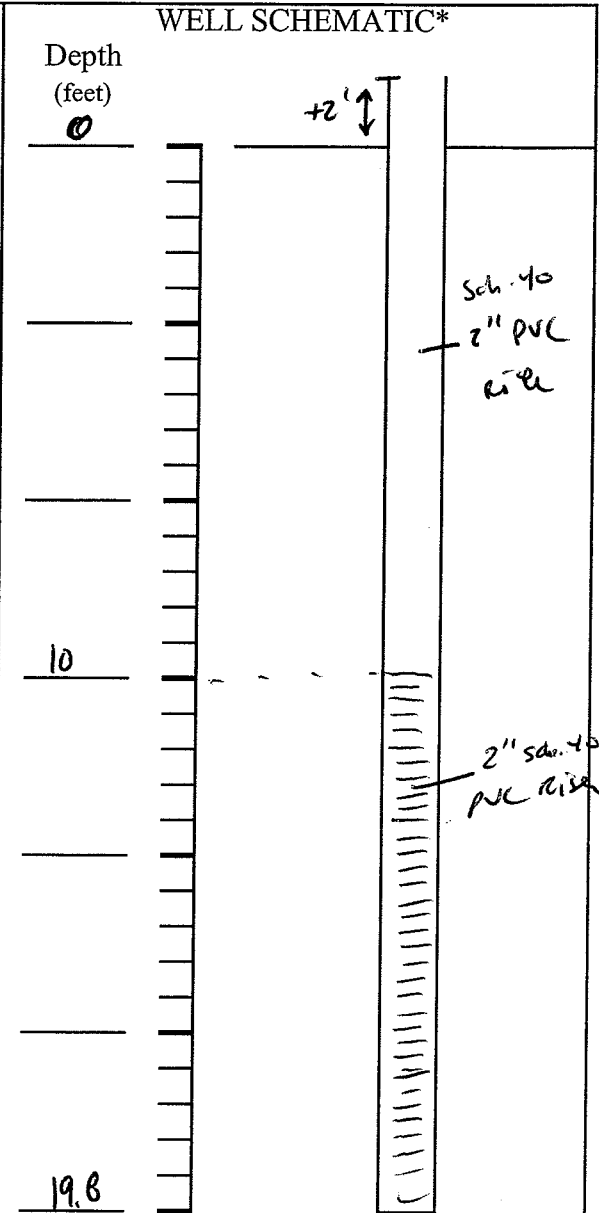
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	

**CASING PERFORATING**

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

**GROUTING**

Interval grouted (FBLs)	<i>0-20'</i>
# of batches prepared	<i>1</i>
For each batch record:	
Quantity of water used (gal.)	<i>30</i>
Quantity of cement used (lbs.)	<i>1 1/2 bags x 7 lbs</i>
Cement type	<i>I/II</i>
Quantity of bentonite used (lbs.)	<i>5 H-Y. (high yield)</i>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	<i>30 gal (NPS)</i>



**COMMENTS:** *Lost about 2 feet of screen.*

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

*Parratt Wolff*  
Drilling Contractor

Department Representative

SITE NAME: MACESSON BEAK ST,

SITE ID.: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_  
DATE/TIME: 11/10/17  
WELL ID.: MW-65

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	Y	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: ..... MW-65

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	Y	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... and no  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) Stickup 2'  
 PROTECTIVE CASING MATERIAL TYPE: ..... Steel  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... 4"

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....		X
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) .....		X
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
 MEASURE WELL DIAMETER (Inches): .....  
 WELL CASING MATERIAL: ..... 2"  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... PVC  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE ..... Good  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
No obstructions

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
Field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
 \_\_\_\_\_

REMARKS:  
 \_\_\_\_\_  
 \_\_\_\_\_

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <u>MCKEESON BEAR ST</u>	Well I.D.: <u>MW-13S</u>
Site Location: <u>SYRACUSE N.Y.</u>	Driller: <u>LEE PENROD</u>
Drilling Co.: <u>PARRATT-WOLFF</u>	Inspector: <u>NATHAN SMITH (ARCADIS)</u>
	Date: <u>11/2/10</u>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled

Drilling Method(s)

Borehole Dia. (in.)

Temporary Casing Installed? (y/n)

Depth temporary casing installed

Casing type/dia. (in.)

Method of installing

CASING PULLING

Method employed Punch/Pull/Draw

Casing retrieved (feet) 17.5'

Casing type/dia. (in) 2"

CASING PERFORATING

Equipment used

Number of perforations/foot

Size of perforations

Interval perforated

GROUTING

Interval grouted (FBS) 0-15.0

# of batches prepared 1

For each batch record:

Quantity of water used (gal.) 4-5

Quantity of cement used (lbs.) (1) 47 lb bag

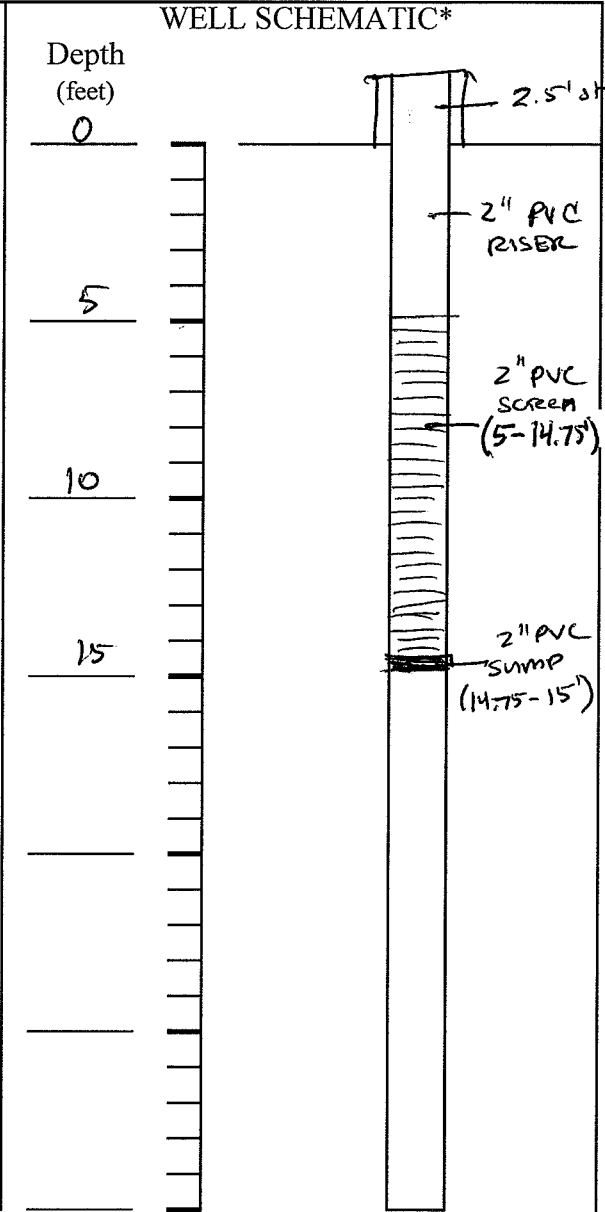
Cement type II/E

Quantity of bentonite used (lbs.) 1 lb. H.Y. high yield.

Quantity of calcium chloride used (lbs.)

Volume of grout prepared (gal.)

Volume of grout used (gal.) 4 gal



**COMMENTS:**

Driller punched the bottom of the riser PVC casing out and used during grouting as a tremie pipe.

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Parratt-Wolff  
Drilling Contractor

\_\_\_\_\_  
Department Representative

FIGURE 1

SITE NAME: McLEESON BOAM ST.

MONITORING WELL FIELD INSPECTION LOG  
 NYSDEC WELL DECOMMISSIONING PROGRAM

SITE ID.: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 DATE/TIME: 11/2/10  
 WELL ID.: MW-135

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... ND (ppm)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) Steel 2"  
 PROTECTIVE CASING MATERIAL TYPE: Steel  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 4"

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....		X
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		X
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 15'  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): —  
 MEASURE WELL DIAMETER (Inches): 2"  
 WELL CASING MATERIAL: PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
No obstructions

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
INSIDE ENCLOSED FENCE, IN FIELD

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
NONE

REMARKS:  
—

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <u>MCKESSON BEARLE ST</u>	Well I.D.: <u>MW-155</u>
Site Location: <u>SYRACUSE NY</u>	Driller: <u>LEE PENROD</u>
Drilling Co.: <u>PALRATT WOLFF</u>	Inspector: <u>NDS</u>
	Date: <u>11/1/10</u>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

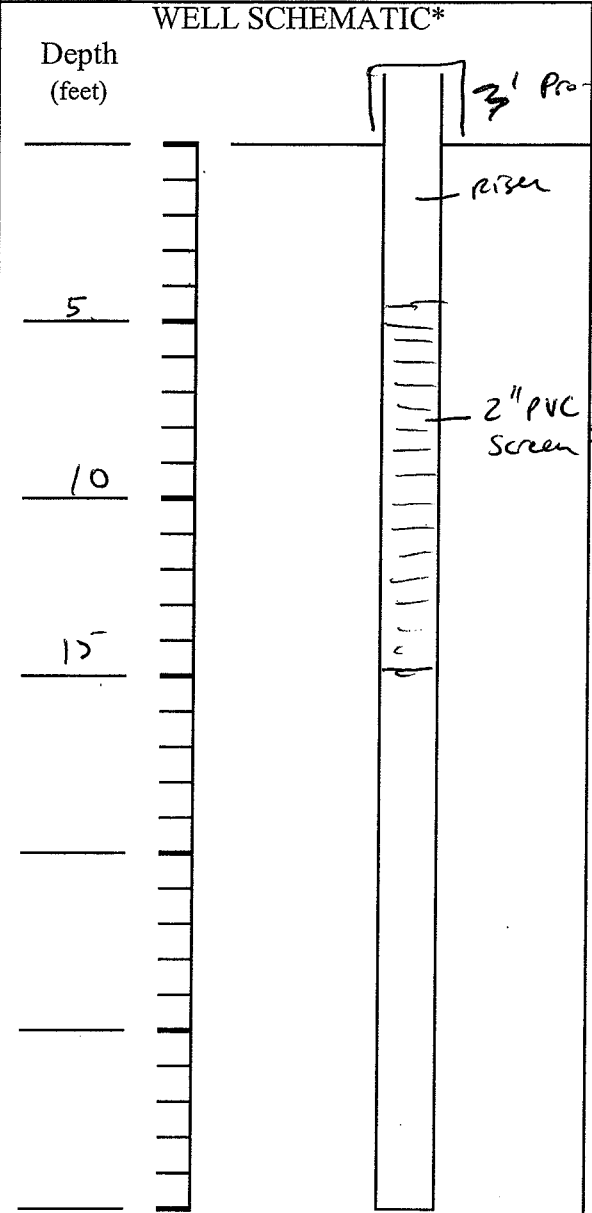
Method employed	<u>Puncher, pulled w/ rig</u>
Casing retrieved (feet)	<u>18'</u>
Casing type/dia. (in.)	<u>2"</u>

CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLs)	<u>0-15'</u>
# of batches prepared	<u>1</u>
For each batch record:	
Quantity of water used (gal.)	<u>4-5</u>
Quantity of cement used (lbs.)	<u>(1) 71 lb bag</u>
Cement type	<u>I/II</u>
Quantity of bentonite used (lbs.)	<u>1 lb H.Y. (high yield)</u>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	<u>4 gal</u>



**COMMENTS:**  
punched out bottom of well then used casing as a tremie pipe for grout while pulling PVC out.

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Palratt-Wolff  
 Drilling Contractor

Department Representative

SITE NAME: MCKESSON BEAM ST.

SITE ID.: \_\_\_\_\_

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

INSPECTOR: \_\_\_\_\_

DATE/TIME: 11/1/2010

WELL ID.: MW-155

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: MW-155

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... 0.0 ppm  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) Steel stickup 3'  
 PROTECTIVE CASING MATERIAL TYPE: Steel  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....	X	
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		X
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... -  
 MEASURE WELL DIAMETER (Inches): ..... 2"  
 WELL CASING MATERIAL: ..... PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... NONE

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
NO OBSTRUCTIONS

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
Field ~ 15ft from fence

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
NONE

REMARKS:  
Punch, pull + grant

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <i>McKesson Bear St</i>	Well I.D.: <i>MW-19</i>
Site Location: <i>Stracuse N.Y.</i>	Driller: <i>Layne Pech</i>
Drilling Co.: <i>Parrott-Wolff</i>	Inspector: <i>N. Smith (ARCADIS)</i>
	Date: <i>11/2-11/3/2010</i>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	<i>0-65.266'</i>
Drilling Method(s)	<i>4 1/4" MSA</i>
Borehole Dia. (in.)	<i>6"</i>
Temporary Casing Installed? (y/n)	<i>-</i>
Depth temporary casing installed	<i>-</i>
Casing type/dia. (in.)	<i>-</i>
Method of installing	<i>-</i>

CASING PULLING

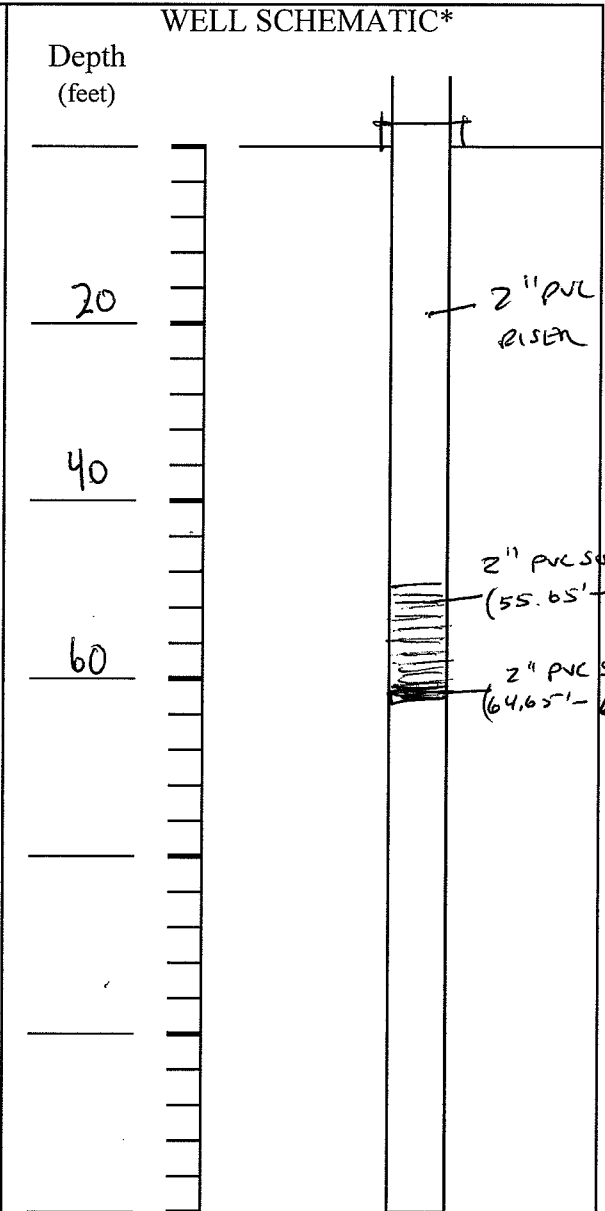
Method employed	<i>[diagonal line]</i>
Casing retrieved (feet)	<i>[diagonal line]</i>
Casing type/dia. (in.)	<i>[diagonal line]</i>

CASING PERFORATING

Equipment used	<i>[diagonal line]</i>
Number of perforations/foot	<i>[diagonal line]</i>
Size of perforations	<i>[diagonal line]</i>
Interval perforated	<i>[diagonal line]</i>

GROUTING

Interval grouted (FBLs)	<i>0-66'</i>
# of batches prepared	<i>1</i>
For each batch record:	
Quantity of water used (gal.)	<i>~100</i>
Quantity of cement used (lbs.)	<i>(25) 47 lb. bags</i>
Cement type	<i>I/II</i>
Quantity of bentonite used (lbs.)	<i>25 lbs</i>
Quantity of calcium chloride used (lbs.)	<i>-</i>
Volume of grout prepared (gal.)	<i>-</i>
Volume of grout used (gal.)	<i>~100</i>



**COMMENTS:**

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

*Parrott-Wolff*  
Drilling Contractor

Department Representative

SITE NAME: MUJESSON BEACH ST.

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

SITE ID.: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_  
DATE/TIME: 11/2 - 11/3/10  
WELL ID.: MW-19

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... ND (PID)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 2' steel  
 PROTECTIVE CASING MATERIAL TYPE: Steel  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 4"

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....	X	
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		X
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 67.02  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 13.10  
 MEASURE WELL DIAMETER (Inches): 2"  
 WELL CASING MATERIAL: PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE \_\_\_\_\_  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES. \_\_\_\_\_

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
Along canal - walk

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
A few feet off of canal walk in grass

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
NONE

REMARKS:  
 \_\_\_\_\_  
 \_\_\_\_\_



**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <b>MCKESSON BEAR ST.</b>	Well I.D.: <b>MW-22</b>
Site Location: <b>SYRACUSE N.Y.</b>	Driller: <b>CARLE PECH</b>
Drilling Co.: <b>PARRATT-WOLFF</b>	Inspector: <b>Nathan Smith ARCADIS</b>
	Date: <b>11/24/2010</b>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

**OVERDRILLING**

Interval Drilled	/
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

**CASING PULLING**

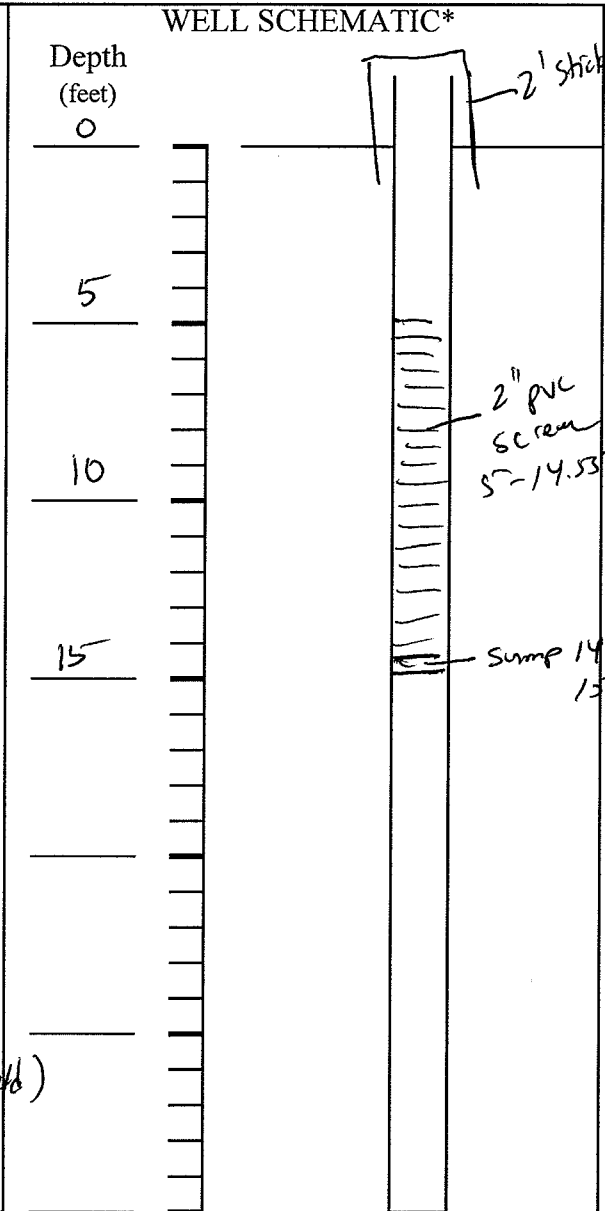
Method employed	<b>PUNCH/PULL/GROUT</b>
Casing retrieved (feet)	<b>17'</b>
Casing type/dia. (in)	<b>2"</b>

**CASING PERFORATING**

Equipment used	/
Number of perforations/foot	
Size of perforations	
Interval perforated	

**GROUTING**

Interval grouted (FBLs)	<b>0-15'</b>
# of batches prepared	<b>1</b>
For each batch record:	
Quantity of water used (gal.)	<b>30-4 gal</b>
Quantity of cement used (lbs.)	<b>30 lbs</b>
Cement type	<b>I/II</b>
Quantity of bentonite used (lbs.)	<b>~0.5 lbs H.Y. (high yield)</b>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	<b>3 gal</b>



**COMMENTS:**  
**punched out bottom of well, used casing as a tremie pipe while grouting.**

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

**Parratt-Wolff**  
 Drilling Contractor

Department Representative

FIGURE 1

SITE NAME: MCKESSON BEAR ST.

SITE ID.:

INSPECTOR: NPS

DATE/TIME: 11/22/10

11/24/10  
mw-22

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

WELL VISIBLE? (If not, provide directions below) .....

YES	NO
X	
	X
X	

WELL I.D. VISIBLE? .....

WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....mw-22

SURFACE SEAL PRESENT? .....

SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....

PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
X	
X	
X	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)

PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

ND (PID)

LOCK PRESENT? .....

LOCK FUNCTIONAL? .....

DID YOU REPLACE THE LOCK? .....

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)

WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
	X
	X
	X
X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....

MEASURE WELL DIAMETER (Inches): .....

WELL CASING MATERIAL: .....

PHYSICAL CONDITION OF VISIBLE WELL CASING: .....

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

15'  
—  
2"  
PVC  
—  
NONE

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

CORNER OF FENCED IN PROPERTY ~ 15' away from fence

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Fenced in field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

NONE

REMARKS:

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <u>MCKESSON BEAR ST</u>	Well I.D.: <u>MW-26S</u>
Site Location: <u>SYRACUSE N.Y.</u>	Driller: <u>LEE PENROD</u>
Drilling Co.: <u>PARRAST-WOLFF</u>	Inspector: <u>NATHAN SMITH (ARCADIS)</u>
	Date: <u>11/2/10</u>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

**OVERDRILLING**

Interval Drilled: 0-20'

Drilling Method(s): 6 1/4" HSA

Borehole Dia. (in.): 8 1/4"

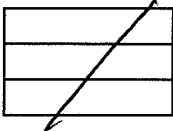
Temporary Casing Installed? (y/n): N

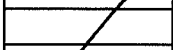
Depth temporary casing installed: 11

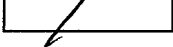
Casing type/dia. (in.): 11

Method of installing: 11

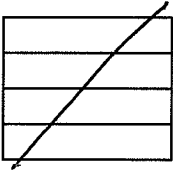
**CASING PULLING**

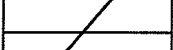
Method employed: 

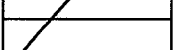
Casing retrieved (feet): 


Casing type/dia. (in): 

**CASING PERFORATING**

Equipment used: 

Number of perforations/foot: 

Size of perforations: 

Interval perforated: 

**GROUTING**

Interval grouted (FBLs): 0-20'

# of batches prepared: 1

For each batch record:

Quantity of water used (gal.): 55

Quantity of cement used (lbs.): 15 bags (47 lbs)

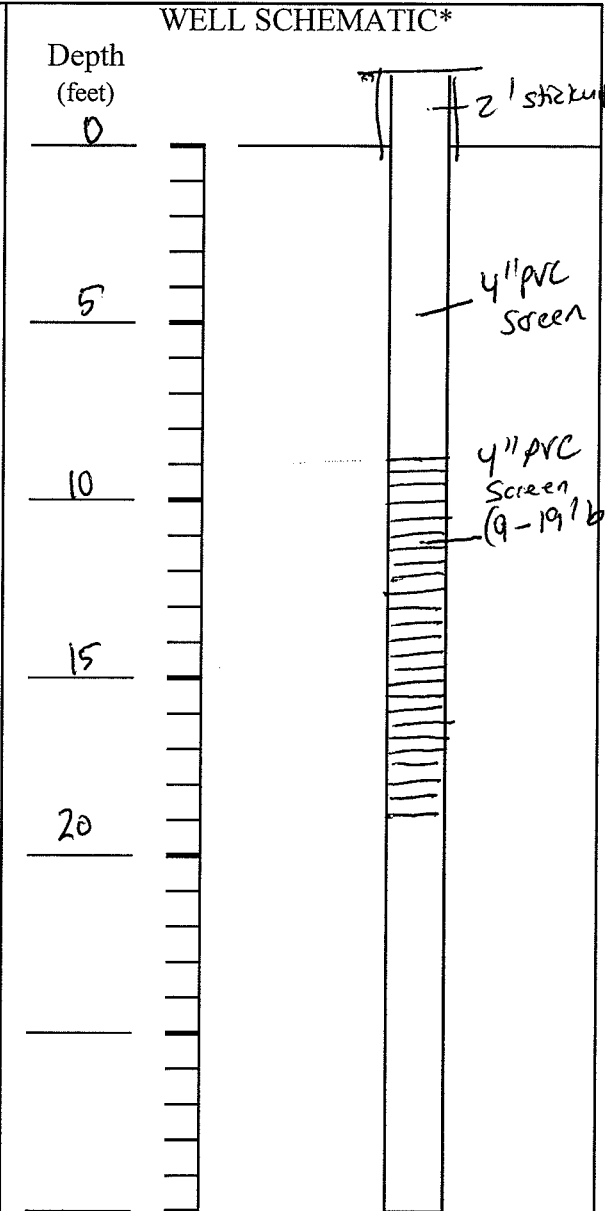
Cement type: I/F

Quantity of bentonite used (lbs.): 13' H.Y. (high yield)

Quantity of calcium chloride used (lbs.):

Volume of grout prepared (gal.):

Volume of grout used (gal.): 55



**COMMENTS:**

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Parrast-Wolff  
Drilling Contractor

\_\_\_\_\_  
Department Representative

FIGURE 1

SITE NAME: MCKESSON BENT ST.

SITE ID.: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 DATE/TIME: 11/2/10  
 WELL ID.: mw-26S

MONITORING WELL FIELD INSPECTION LOG  
 NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: ..... mw-26

SURFACE SEAL PRESENT? .....

SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....

PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
X	
X	
X	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)

PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... 4"

ND (PID)

Steel 2'

Steel

LOCK PRESENT? .....

LOCK FUNCTIONAL? .....

DID YOU REPLACE THE LOCK? .....

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)

WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
X	X
	X
	X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....

MEASURE WELL DIAMETER (Inches): .....

WELL CASING MATERIAL: .....

PHYSICAL CONDITION OF VISIBLE WELL CASING: .....

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

—

—

2"

PVC

Good

—

—

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

No obstructions

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

in fenced in field (site area)

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

NONE

REMARKS:

—

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <i>MCKESSON BETHEL STREET</i>	Well I.D.: <i>MW-36</i>
Site Location: <i>SYRACUSE N.Y.</i>	Driller: <i>Lee Penrod</i>
Drilling Co.: <i>DARRATT-WOLFF</i>	Inspector: <i>NATHAN SMITH (ARCAD)</i>
	Date: <i>11/1/10</i>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	<del>_____</del>
Drilling Method(s)	<del>_____</del>
Borehole Dia. (in.)	<del>_____</del>
Temporary Casing Installed? (y/n)	<del>_____</del>
Depth temporary casing installed	<del>_____</del>
Casing type/dia. (in.)	<del>_____</del>
Method of installing	<del>_____</del>

CASING PULLING

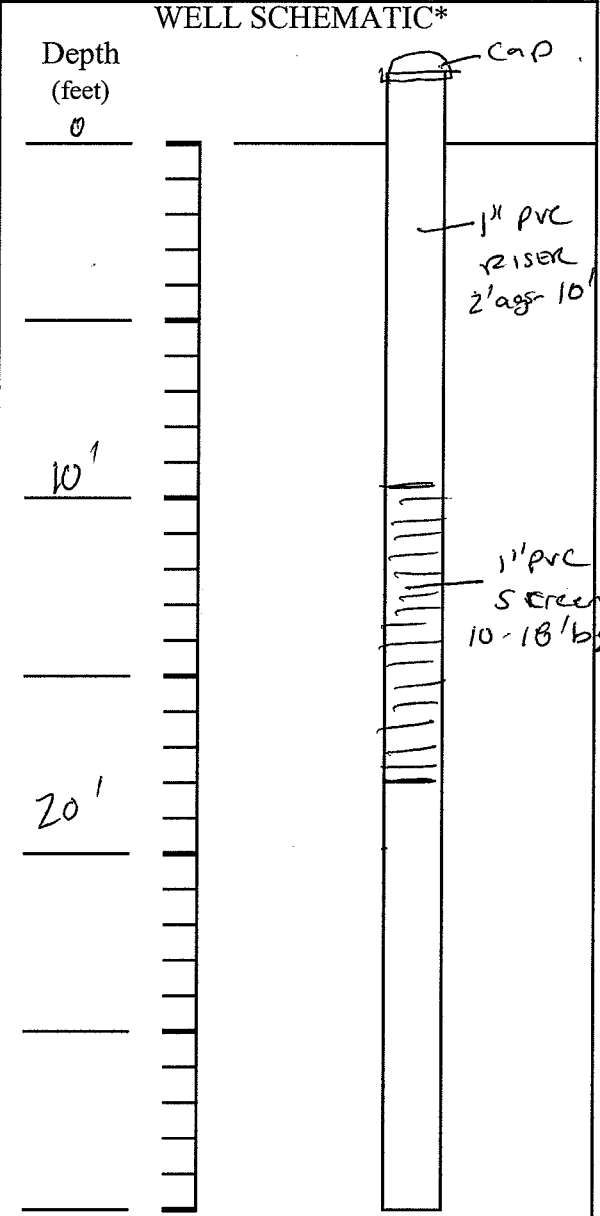
Method employed	<i>Pull w/ drill rig</i>
Casing retrieved (feet)	<i>20'</i>
Casing type/dia. (in.)	<i>1"</i>

CASING PERFORATING

Equipment used	<del>_____</del>
Number of perforations/foot	<del>_____</del>
Size of perforations	<del>_____</del>
Interval perforated	<del>_____</del>

GROUTING

Interval grouted (FBLS)	<del>_____</del>
# of batches prepared	<del>_____</del>
For each batch record:	
Quantity of water used (gal.)	<del>_____</del>
Quantity of cement used (lbs.)	<del>_____</del>
Cement type	<del>_____</del>
Quantity of bentonite used (lbs.)	<del>_____</del>
Quantity of calcium chloride used (lbs.)	<del>_____</del>
Volume of grout prepared (gal.)	<del>_____</del>
Volume of grout used (gal.)	<del>_____</del>



**COMMENTS:**

*Well was pulled but not grouted due to anticipated excavation of soil in this area*

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

*Darratt-Wolff*  
Drilling Contractor

Department Representative

FIGURE 1

SITE NAME: MCCESSEY BEAR ST.

SITE ID.: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 DATE/TIME: 11/1/10  
 WELL ID.: mw-36

MONITORING WELL FIELD INSPECTION LOG  
 NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	<u>X</u>	
WELL I.D. VISIBLE? .....		<u>X</u>
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	<u>X</u>	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT? .....		<u>X</u>
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....		<u>-</u>
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....		<u>-</u>

HEADSPACE READING (ppm) AND INSTRUMENT USED..... ND (PID)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) ..... 2' stickup  
 PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... NA

	YES	NO
LOCK PRESENT? .....		<u>X</u>
LOCK FUNCTIONAL? .....		<u>-</u>
DID YOU REPLACE THE LOCK? .....		<u>-</u>
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) .....		<u>X</u>
WELL MEASURING POINT VISIBLE? .....	<u>X</u>	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... 20'  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... 9.79'  
 MEASURE WELL DIAMETER (Inches): ..... ~~2~~ 1"  
 WELL CASING MATERIAL: ..... PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE ..... -  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... -

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
NO OBSTRUCTION

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
IN GLASSY AREA - Area will be excavated

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
 \_\_\_\_\_  
 \_\_\_\_\_

REMARKS:  
MW-36 was pulled during excavation of TW-02RR source area. No grouting took place.

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <u>MILKSON BEAR ST</u>	Well I.D.: <u>PZ-5S</u>
Site Location: <u>SYRACUSE N.Y.</u>	Driller: <u>Lane Peck</u>
Drilling Co.: <u>PARRATT-WOLF</u>	Inspector: <u>NATHAN SMITH (ABUMDIS)</u>
	Date: <u>11/2/10</u>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	/
Drilling Method(s)	/
Borehole Dia. (in.)	/
Temporary Casing Installed? (y/n)	/
Depth temporary casing installed	/
Casing type/dia. (in.)	/
Method of installing	/

CASING PULLING

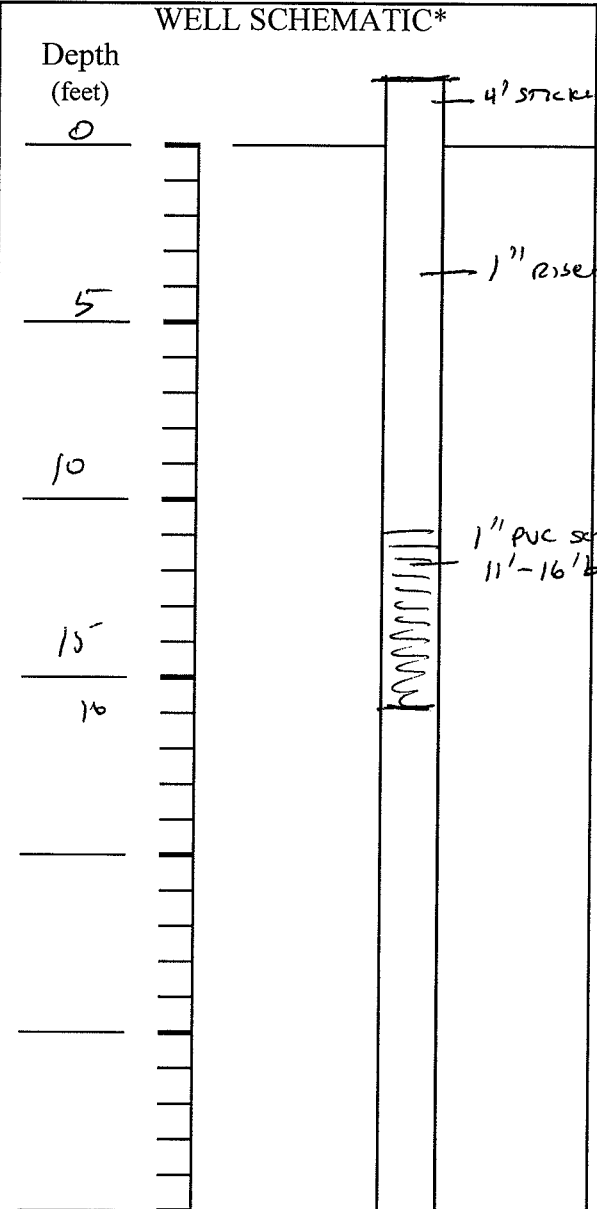
Method employed	/
Casing retrieved (feet)	/
Casing type/dia. (in)	/

CASING PERFORATING

Equipment used	/
Number of perforations/foot	/
Size of perforations	/
Interval perforated	/

GROUTING

Interval grouted (FBLs)	<u>4' 49.5 - 16' 69.5</u>
# of batches prepared	<u>1</u>
For each batch record:	
Quantity of water used (gal.)	<u>1 gal</u>
Quantity of cement used (lbs.)	<u>12 lbs</u>
Cement type	<u>I/D</u>
Quantity of bentonite used (lbs.)	<u>0.5 lbs.</u>
Quantity of calcium chloride used (lbs.)	<u>-</u>
Volume of grout prepared (gal.)	<u>-</u>
Volume of grout used (gal.)	<u>1 gal</u>



**COMMENTS:**  
 This well is part one of two wells included in the PZ-5 cluster (PZ-5S/D) - PZ-5D will remain in use, so PZ-5S was grouted only.

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Parratt-Wolf  
 Drilling Contractor

\_\_\_\_\_  
 Department Representative

FIGURE 1

SITE NAME: MCKESSON BEAR ST.

SITE ID.: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 DATE/TIME: 11/2/10  
 WELL ID.: PZ-55

MONITORING WELL FIELD INSPECTION LOG  
 NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: ..... PZ-55

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... ND (PID)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 4'  
 PROTECTIVE CASING MATERIAL TYPE: Steel  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... 6"

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....	X	
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)	X	
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... 15.91'  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... -  
 MEASURE WELL DIAMETER (Inches): ..... 1"  
 WELL CASING MATERIAL: ..... PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE ..... -  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... -

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
Along central walk

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
outside of fence (~10'), in grass area off of path

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
NONE

REMARKS:  
GRAVEL ONLY



**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Well Name: <u>MCKESSON BEAR ST</u>	Well I.D.: <u>PZ-9S/9D</u>
Site Location: <u>SYRACUSE N.Y.</u>	Driller: <u>PARRATT W LEE PENROD</u>
Drilling Co.: <u>PARRATT WOLFF</u>	Inspector: <u>NATHAN SMITH (900015)</u>
Date: <u>11/1/10</u>	

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	<u>0-28' bgs</u>
Drilling Method(s)	<u>4 1/4" H.S.A</u>
Borehole Dia. (in.)	<u>6"</u>
Temporary Casing Installed? (y/n)	<u>N</u>
Depth temporary casing installed	<u>-</u>
Casing type/dia. (in.)	<u>-</u>
Method of installing	<u>-</u>

CASING PULLING

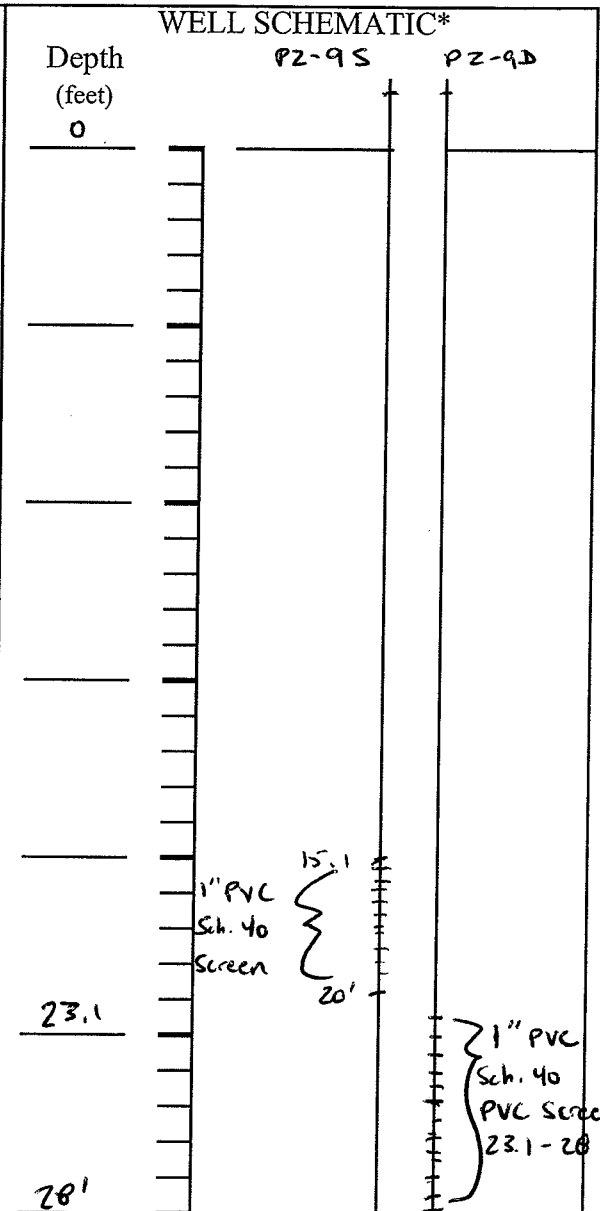
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	

CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLs)	<u>0-28'</u>
# of batches prepared	<u>1</u>
For each batch record:	
Quantity of water used (gal.)	<u>90 gal</u>
Quantity of cement used (lbs.)	<u>47 x 8 bags 370 lbs</u>
Cement type	<u>I/II</u>
Quantity of bentonite used (lbs.)	<u>-</u>
Quantity of calcium chloride used (lbs.)	<u>-</u>
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	<u>45</u>



**COMMENTS:**

Grouted during overdrilling in case pipe breaks.

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Parratt-wolff.  
Drilling Contractor

\_\_\_\_\_  
Department Representative

SITE NAME: MCKESSON BEAR ST.

SITE ID.: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 DATE/TIME: 11/1/10  
 WELL ID.: PZ-91D/93

MONITORING WELL FIELD INSPECTION LOG  
 NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT? .....	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... 0.0 (PID)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) STEEL 3'  
 PROTECTIVE CASING MATERIAL TYPE: ..... STEEL  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... 6

	YES	NO
LOCK PRESENT? .....	X	
LOCK FUNCTIONAL? .....	X	
DID YOU REPLACE THE LOCK? .....		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)	X	
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
 MEASURE WELL DIAMETER (Inches): .....  
 WELL CASING MATERIAL: .....  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... NONE

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
~ 10' SE of perimeter fence

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
FIELD

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
none

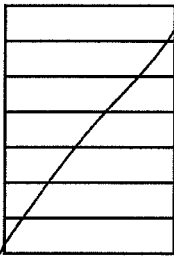
REMARKS:  
 \_\_\_\_\_  
 \_\_\_\_\_

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <u>MCKESSON BEAR ST.</u>	Well I.D.: <u>PZ-W</u>
Site Location: <u>SYRACUSE N.Y.</u>	Driller: _____
Drilling Co.: <u>PARLANT-WOLFE NA</u>	Inspector: <u>NATHAN SMITH</u>
	Date: <u>11/1/10</u>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled 

Drilling Method(s)

Borehole Dia. (in.)

Temporary Casing Installed? (y/n)

Depth temporary casing installed

Casing type/dia. (in.)

Method of installing

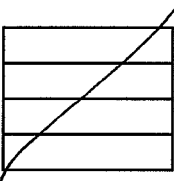
CASING PULLING

Method employed PULL W/EXCAVATOR

Casing retrieved (feet) ~ 10' (broken up)

Casing type/dia. (in.) 1"

CASING PERFORATING

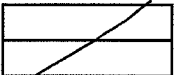
Equipment used 

Number of perforations/foot

Size of perforations

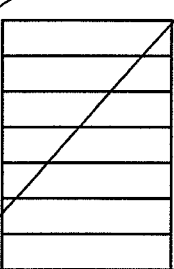
Interval perforated

GROUTING

Interval grouted (FBLS) 

# of batches prepared

For each batch record:

Quantity of water used (gal.) 

Quantity of cement used (lbs.)

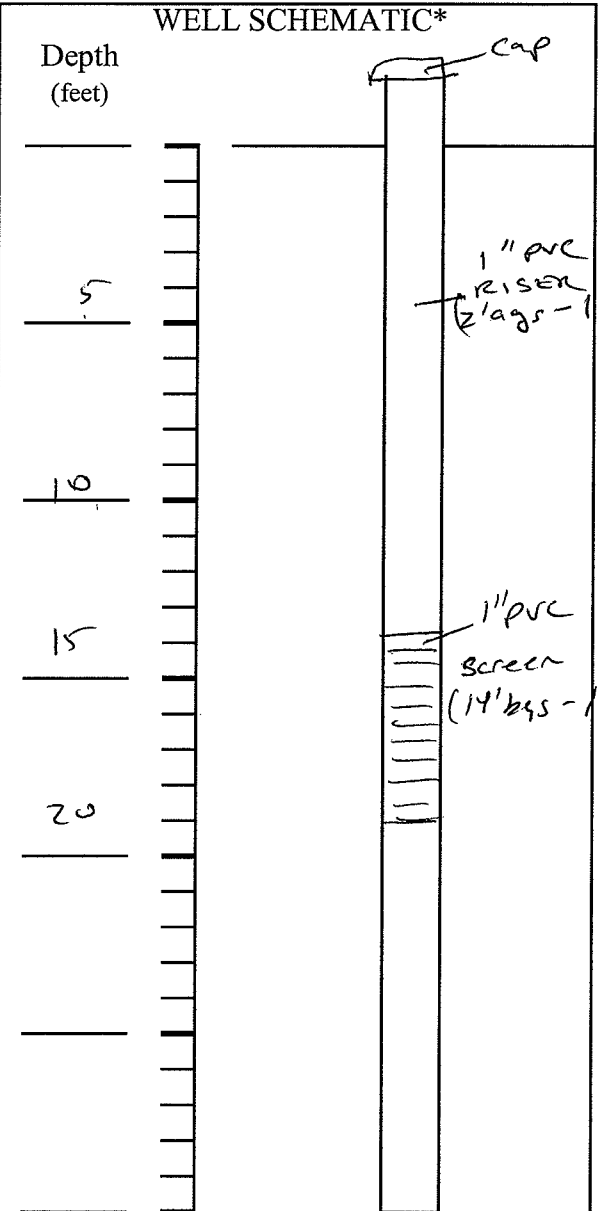
Cement type

Quantity of bentonite used (lbs.)

Quantity of calcium chloride used (lbs.)

Volume of grout prepared (gal.)

Volume of grout used (gal.)



**COMMENTS:**

PZ-W was pulled during excavation of TW-022R source area. No grouting took place. The well was pulled by the excavation subcontractor during excavation.

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

FIGURE 1

SITE NAME: MCKESSIN STATION ST.

SITE ID.: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_  
 DATE/TIME: 11/1/10  
 WELL ID.: PZ-W

MONITORING WELL FIELD INSPECTION LOG  
 NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below) .....	X	
WELL I.D. VISIBLE? .....		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT? .....		X
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....		-
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....		-

HEADSPACE READING (ppm) AND INSTRUMENT USED..... ND (PID)  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 2' stickup  
 PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... NA

	YES	NO
LOCK PRESENT? .....		X
LOCK FUNCTIONAL? .....		-
DID YOU REPLACE THE LOCK? .....		-
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		X
WELL MEASURING POINT VISIBLE? .....	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... 20'  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... 9.50'  
 MEASURE WELL DIAMETER (Inches): ..... 1"  
 WELL CASING MATERIAL: ..... PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... Good  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
No obstruction

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
IN GRASSY AREA - Area will be excavated

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
 \_\_\_\_\_

REMARKS:  
PZ-W was pulled during excavation of TW-02RR source area. No grouting took place.

**FIGURE 3  
WELL DECOMMISSIONING RECORD**

Site Name: <u>MCLISSON BEAR ST.</u>	Well I.D.: <u>TW-02RR</u>
Site Location: <u>SYRACUSE N.Y.</u>	Driller: <u><del>PARBATT WOLFF</del> LEE FENZOS</u>
Drilling Co.: <u>PARBATT WOLFF</u>	Inspector: <u>NATHAN SMITH (ARCADIS)</u>
	Date: <u>11/1/10</u>

**DECOMMISSIONING DATA**  
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

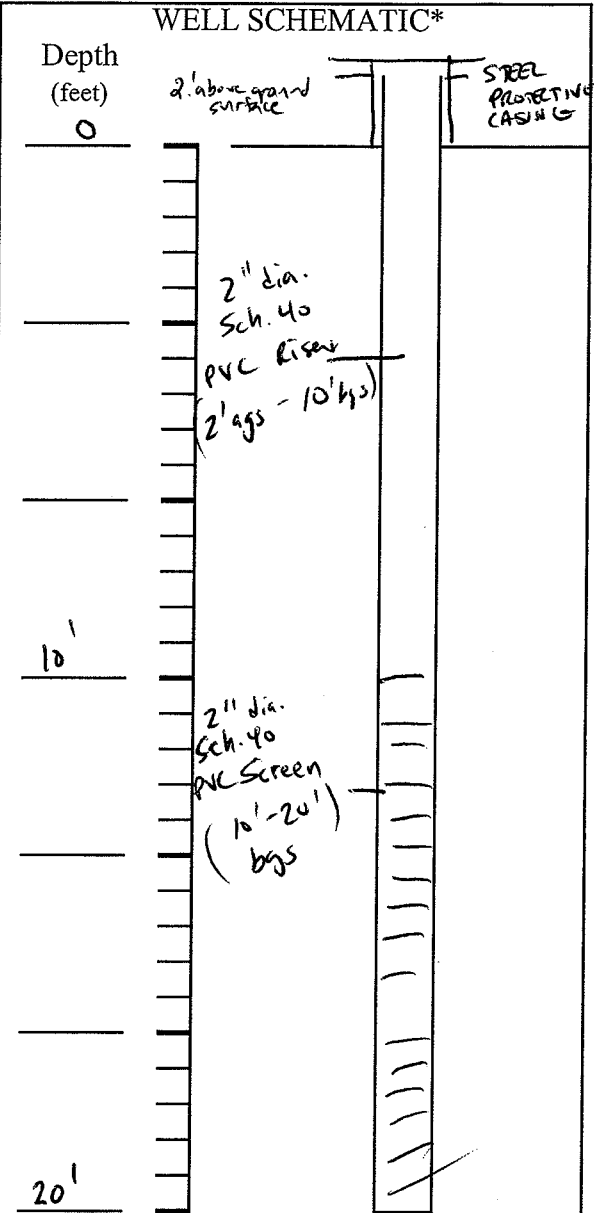
Method employed	<u>PULL w/ drill rig</u>
Casing retrieved (feet)	<u>15'</u>
Casing type/dia. (in)	<u>2"</u>

CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLs)	
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	



**COMMENTS:**

GROUTING NOT NEEDED DUE TO EXCAVATION AT THIS LOCATION.

\* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

SITE NAME: MCKEYSON BEAR ST.

SITE ID.: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_  
DATE/TIME: 4/1/10  
WELL ID.: TW-0220

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

WELL VISIBLE? (If not, provide directions below) .....  
WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

YES	NO
X	
X	✓
X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
X	
X	
X	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... 4"

ND (ppm)  
2.5' steel  
steel

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
X	
	X
	—
	—

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

22.23  
9.45'  
2"  
PVC  
Good  
—  
—

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

NO OBSTRUCTIONS

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

IN GRASSY AREA - well will not be Area will be excavated

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:

Well was pulled but not grouted due to the area will be excavated.

ARCADIS

**Tables**

**Table 1. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, October 2006 through December 2010, 2010 Biannual Process Control Monitoring 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
Canal	393.39	364.29	362.99	362.06	364.34	363.21	363.54	362.89	362.97	363.49
Collection Sump	372.81	363.18	362.26	361.86	363.81	362.14	362.20	362.18	362.18	360.72
MW-3S <sup>1</sup>	376.54	369.08	--	367.60	367.93	365.19	367.32	365.50	365.67	367.95
MW-3D	375.56	366.90	365.52	365.24	366.62	365.11	366.21	365.16	365.72	--
MW-6D	377.07	367.07	365.72	365.44	366.83	365.31	366.44	365.38	365.96	--
MW-9D	376.76 <sup>2</sup>	366.91	365.83	365.56	366.87	365.35	366.48	365.42	366.03	--
MW-11D	373.68	366.53	--	364.92	366.32	364.85	365.91	364.89	365.43	--
MW-11S	373.50	366.11	364.27	363.88	365.69	363.86	364.88	363.89	364.42	364.30
MW-18 <sup>1</sup>	372.57	363.82	362.63	362.32	363.51	362.26	363.16	362.22	362.67	362.87
MW-231 <sup>1</sup>	372.77	366.43	365.02	364.74	366.12	364.64	365.69	364.67	365.19	365.38
MW-23S	372.61	365.28	362.98	362.56	364.81	362.62	363.50	362.63	362.99	362.71
MW-24DR	375.14	366.59	365.28	364.90	366.31	364.81	365.82	364.86	365.38	--
MW-24SR	375.55	366.49	365.21	364.83	366.26	364.73	365.81	364.79	365.32	365.81
MW-25D	373.67	366.64	365.30	364.95	366.35	364.85	365.88	364.94	365.44	--
MW-25S	373.39	365.26	363.32	362.87	364.84	362.88	363.97	362.89	363.34	363.30
PZ-4D	376.11	366.64	365.29	364.98	366.39	364.90	365.96	364.94	365.49	366.02
PZ-5D	375.58	366.87	365.49	365.19	366.69	365.09	366.21	365.14	365.01	366.09
PZ-A	373.94	365.62	363.11	362.72	364.83	362.96	363.56	362.95	362.28	362.35
PZ-B	373.92	365.85	363.12	362.62	365.03	362.87	363.64	362.83	362.96	362.22
PZ-C	374.85	367.14	365.85	365.30	367.15	365.16	366.71	365.23	366.37	367.11
PZ-D	375.12	367.68	365.98	365.40	367.29	365.28	366.81	365.40	366.57	367.17
PZ-E	374.12	368.13	365.16	364.07	366.58	364.14	366.82	364.20	364.25	364.16
PZ-F	377.06	368.32	366.18	365.76	367.99	365.50	367.41	365.69	366.72	367.10
PZ-G	377.16	368.64	366.28	365.82	368.14	365.94	367.29	367.22	367.32	367.36
PZ-HR	376.99	368.31	366.23	365.74	368.00	365.48	367.41	365.63	366.65	367.15
PZ-I	375.15	369.00	366.49	365.92	368.55	365.50	367.97	365.71	367.04	367.49
PZ-J	374.89	367.96	366.16	365.82	367.69	365.55	367.20	365.70	366.55	367.05
PZ-K	373.19	365.58	363.36	362.91	364.96	363.08	363.80	363.04	363.33	363.34
PZ-L	374.62	365.23	362.94	362.63	364.64	362.79	363.39	362.80	363.80	362.36
PZ-M	374.35	365.60	363.54	363.11	365.13	363.30	364.00	363.31	363.62	363.04
PZ-N	376.94 <sup>3</sup>	367.51	365.76	365.26	367.05	365.09	366.63	365.17	366.22	367.01
PZ-O	375.36	365.42	363.22	362.82	365.01	362.91	363.94	362.93	363.35	362.90
PZ-P	376.89	368.30	366.31	365.83	368.06	365.58	367.51	365.75	366.76	367.26
PZ-Q	377.61	368.61	366.33	365.83	368.23	365.57	367.61	365.77	366.78	367.26
PZ-R	377.05	368.51	366.19	365.79	368.20	365.55	367.57	365.73	366.74	367.24
PZ-S	378.13	372.48	366.51	365.81	368.21	365.55	367.60	365.74	366.76	367.13
PZ-T	376.25	368.04	366.24	365.84	367.89	365.52	367.37	365.66	366.63	367.12
PZ-U	375.35	367.99	366.07	365.80	367.75	365.52	367.25	365.66	366.52	367.05
PZ-V	375.78	367.97	366.17	365.78	367.78	365.48	367.24	365.64	366.52	367.04
PZ-W	375.78	367.79	366.01	365.69	367.59	365.46	367.10	365.60	366.47	366.97

**Notes:**

<sup>1</sup>Well not used in potentiometric surface of the shallow hydrogeologic unit sand layer.

<sup>2</sup>Monitoring well MW-9D inner polyvinyl chloride pipe was reduced (cut) by 1½ inches on September 19, 2001. The reference elevation prior to September 19, 2001 was 376.88 feet AMSL. The new reference elevation for MW-9D is 376.76 feet AMSL.

<sup>3</sup>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.

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

-- = No groundwater level measurement was obtained.



**Table 2. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule, 2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Location	Annual Sampling Schedule		
	Shallow/Deep Well <sup>2</sup>	First Sampling Event	Second Sampling Event
<b>Sentinel Wells</b>			
MW-3S <sup>1</sup>	--	C	C
MW-4S <sup>1</sup>	--	NM	C
<b>Area 1</b>			
TW-01	--	C	C
MW-9S	--	C	C
MW-31	--	C	C
MW-32	--	C	C
MW-33 <sup>1</sup>	--	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
<b>Area 2</b>			
TW-02RRR	--	C	C
MW-34	--	C	C
MW-35	--	C	C
MW-36R <sup>1</sup>	--	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
PZ-W	Shallow	H	H <sup>3</sup>
<b>Area 3</b>			
MW-8SR <sup>1</sup>	--	C	C
MW-27 <sup>1</sup>	--	C	C
MW-28	--	C	C
MW-29 <sup>1</sup>	--	C	C
MW-30 <sup>1</sup>	--	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

See Notes on Page 2.

**Table 2. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule, 2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Location	Annual Sampling Schedule		
	Shallow/Deep Well <sup>2</sup>	First Sampling Event	Second Sampling Event
<b>Area 3 (Cont'd.)</b>			
PZ-M	Shallow	H	H
PZ-N	Shallow	H	H
PZ-O	Shallow	H	H
MW-11S	Shallow	H	H
Collection Sump	Shallow	H	H
<b>Downgradient Perimeter Monitoring Locations</b>			
MW-17R	--	C	C
MW-18	Deep	C	C
MW-23I	Deep	C	C
MW-23S	Shallow	C, H	C, H
MW-24SR	Shallow	H	H
MW-25S	Shallow	H	H
PZ-4S <sup>1</sup>	--	C	NM
PZ-4D <sup>1</sup>	Shallow	C, H	H
PZ-5D	Shallow	H	H
Barge Canal	--	H	H

**Notes:**

<sup>1</sup> Methanol not analyzed for in constituent of concern (COC) monitoring.

<sup>2</sup> As per potentiometric surface mapping.

<sup>3</sup> Sample collected for aniline analysis during October 2010 sampling event.

<sup>4</sup> Per New York State Department of Environmental Conservation (NYSDEC) approval, MW-22 was decommissioned after the October 2010 sampling event.

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 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 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through December 2010, 2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride	
		Top	Bottom											
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)														
MW-1 <sup>E</sup>	11/06	370.3	355.3	50	1	5	5	5	NA	5		1	5	
				<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<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			<b>7.4</b>	<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			<b>8.9 J</b>	<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-3S	11/06	365.1	350.1	<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	
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0	
	9/09			<10	<b>0.17 J</b>	<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	
10/10	<10	<1.0	<1.0	<1.0	<3.0	NS	<1.0	<5.2	<1.0	<1.0				
MW-4S	10/10	365.5	350.5	<10 [ <b>&lt;10</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<3.0 [ <b>&lt;3.0</b> ]	<500 J [ <b>&lt;500 J</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<5.0 [ <b>&lt;5.0</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<1.0 [ <b>&lt;1.0</b> ]	
MW-8SR <sup>B</sup>	9/06	362.7	352.7	NS	NS	NS	NS	NS	NS	NS	<b>52,000 [51,000]</b>	<520 [ <b>&lt;520</b> ]	NS	
	11/06			<b>28</b>	<b>16</b>	<b>100</b>	<b>84</b>	<b>270</b>	<500	<1.0	<b>28,000</b>	<200	<3.0	
	6/07			<b>58</b>	<b>14</b>	<b>110</b>	<b>83</b>	<b>250</b>	<500	<2.0	<b>2,700</b>	<22	<6.0	
	8/07			NS	NS	NS	NS	NS	NS	NS	<b>17,000</b>	<100	NS	
	11/07			<5.0 J	<b>12</b>	<b>22</b>	<b>73</b>	<b>210</b>	<500	<1.0	<b>22,000 J</b>	<100 J	<3.0	
	3/08			<b>&lt;10 [9.6 J]</b>	<b>5.5 [5.7]</b>	<b>22 [22]</b>	<b>70 [68]</b>	<b>160 [160]</b>	<500 [ <b>&lt;500</b> ]	<2.0 [ <b>&lt;2.0</b> ]	<b>5,800 [5,200]</b>	<25 [ <b>&lt;50</b> ]	<6.0 [ <b>&lt;6.0</b> ]	
	8/08			<b>8.2 J [<b>&lt;10</b>]</b>	<b>11 [11]</b>	<b>24 [22]</b>	<b>70 [70]</b>	<b>190 [190]</b>	<500 [ <b>&lt;500</b> ]	<2.0 [ <b>&lt;2.0</b> ]	<b>32,000 [25,000]</b>	<250 [ <b>&lt;250</b> ]	<6.0 [ <b>&lt;6.0</b> ]	
	3/09			<b>6.5 J [5.8 J]</b>	<b>6.8 [6.8]</b>	<b>10 [10]</b>	<b>66 [63]</b>	<b>140 [140]</b>	<500 [ <b>&lt;500</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<b>2,200 [1,800]</b>	<12 [ <b>&lt;12</b> ]	<1.0 [ <b>&lt;1.0</b> ]	
	6/09			NS	NS	NS	NS	NS	NS	NS	<b>7,000</b>	<50	NS	
	9/09			<b>&lt;10 [8.3 J]</b>	<b>8.5 J [7.9]</b>	<b>6.8 J [6.5]</b>	<b>44 J [38]</b>	<b>81 J [71]</b>	<500 [ <b>&lt;500</b> ]	<1.0 J [ <b>&lt;1.0</b> ]	<b>4,000 [3,400]</b>	<20 [ <b>&lt;20</b> ]	<1.0 [ <b>&lt;1.0</b> ]	
	4/10			<10 [ <b>&lt;10</b> ]	<b>4.2 [3.5]</b>	<b>4.6 [3.7]</b>	<b>23 J [18]</b>	<b>41 [33]</b>	<500 [ <b>&lt;500</b> ]	<1.0 [ <b>&lt;1.0</b> ]	<b>370 J [720 J]</b>	<b>1.0 J [5.0]</b>	<1.0 [ <b>&lt;1.0</b> ]	
10/10	<10	<b>2.7</b>	<b>2.0</b>	<b>16</b>	<b>31</b>	NS	<1.0	<b>220</b>	<b>1.6</b>	<1.0				
MW-9 <sup>C</sup> (Replaced by MW-9S)	11/06	365.6	356	<5.0	<b>1.4</b>	<b>3.5 J</b>	<b>23</b>	<b>63</b>	<500	<1.0	<b>0.5 J</b>	<b>3.3 J</b>	<3.0	
	6/07			<5.0	<b>1.4</b>	<b>3.3 J</b>	<b>42</b>	<b>110</b>	<500	<1.0	<5.0	<b>4.1</b>	<3.0	
	11/07			<5.0	<b>0.9 J</b>	<b>2.0 J</b>	<b>11</b>	<b>58</b>	<500 J	<1.0	<b>1.7 J</b>	<b>8.6</b>	<3.0	
	3/08			<5.0 J	<b>1.1</b>	<b>3.0 J</b>	<b>37</b>	<b>73</b>	<500	<b>1.2</b>	<b>0.7 J</b>	<b>6.8</b>	<3.0	
	8/08			<b>24</b>	<b>3.7</b>	<b>3.3 J</b>	<b>21</b>	<b>72</b>	<500	<1.0	<5.5	<b>5.1</b>	<3.0	
	3/09			<10	<b>1.2</b>	<b>2.5</b>	<b>27</b>	<b>65</b>	<500	<1.0	<5.0	<b>4.2</b>	<1.0	
	9/09			<10	<b>1.7</b>	<b>2.2</b>	<b>20</b>	<b>70</b>	<b>730</b>	<1.0	<5.0	<b>4.1</b>	<1.0	
	4/10			<10	<b>0.86 J</b>	<b>2.1</b>	<b>26</b>	<b>69</b>	<500	<1.0	<5.0	<b>6.5</b>	<1.0	
10/10	<10	<b>1.3</b>	<b>1.9</b>	<b>11</b>	<b>45</b>	<500 J	<1.0	<5.1	<b>7.5</b>	<1.0				
MW-17 <sup>D</sup> (Replaced by MW-17R)	11/06	365.7	356.1	R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0	
	6/07			<5.0	<b>0.7 J</b>	<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			<b>2.3 J</b>	<b>1.8</b>	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0	
	3/09			<10	<b>2.3</b>	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0	
	9/09			<10 J	<b>0.86 J</b>	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0	
	4/10			<10	<b>0.22 J</b>	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0	
10/10	<10	<b>1.3</b>	<1.0	<1.0	<3.0	<500 J	<1.0	<5.6	<1.1	<1.0				

**Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through December 2010, 2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>A</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride			
		Top	Bottom													
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)																
MW-18	11/06	325.15	316.15	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			
	8/08			5.5	<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	<b>33</b>			
	6/10			<10	<1.0	<1.0	<1.0	<3.0	NS	<1.0	NS	NS	<1.0			
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.1	<1.0	<1.0			
MW-19	11/06	318.45	309.45	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-22															
				10/10	368.55	359.55	<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
MW-23S	11/06	364.1	354.1	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			
	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			
	10/10			3.7 J	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0			
	MW-23I			11/06	341.2	336.2	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			
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	<b>8.4</b>			
6/10		<10	<1.0	<1.0			<1.0	<3.0	NS	<1.0	NS	NS	<1.0			
10/10		<10	<1.0	<1.0			<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0			
MW-24S <sup>D</sup> (Replaced by MW-24SR)	11/06	358.4	352.4	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 <sup>D</sup> (Replaced by MW-24DR)	11/06	334.4	341.2	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			

**Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through December 2010, 2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)													
MW-25S	11/06	361.2	356.2	50	1	5	5	5	NA	5			
				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	6/07	349.55	344.55	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-27	9/06	362.5	354.5	NS	NS	NS	NS	NS	NS	NS	1,700	<10	NS
	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			NS	NS	NS	NS	NS	NS	NS	<10 J [4,300 J]	<1.0 [<20]	NS
	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
	3/09			14 J	8.7	9.4	36	88	<500	<1.0	8,200 J	<50 J	<1.0
	6/09			NS	NS	NS	NS	NS	NS	NS	7,400	<50	NS
	9/09			10	6.2	6.9	5.9	23	<500	<1.0	2,100	<10	<1.0
	4/10			<10	4.5	2.4	6.1	10	<500	<1.0	1,300	<10	<1.0
	10/10			<10	2.7	1.3	1.4	3.4	NS	<1.0	220	2.5	<1.0
	MW-28			9/06	363.6	355.6	NS	NS	NS	NS	NS	NS	NS
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		NS	NS	NS			NS	NS	NS	NS	40	<1.0	NS
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
3/09		<10	3.5	0.3 J			0.8 J	1.1 J	851	<1.0	18	<0.5	<1.0
9/09		<10	3.1	0.25 J			0.32 J	0.48 J	<500	<1.0	6.7	<1.0	<1.0
4/10		<10	2.8	0.23 J			0.60 J	0.46 J	<500	<1.0	<5.0	0.49 J	<1.0
10/10		<10	1.8	<1.0			<1.0	<3.0	<500 J	<1.0	2.4 J	0.60 J	<1.0
MW-29	11/06	362.9	345.9	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	<5.0	<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
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	<1.0	0.16 J	<1.0	<3.0	<500	<1.0	<5.0	0.29 J	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	NS	<1.0	<5.2	<1.0	<1.0

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Monitoring Well	Sampling Date	Screen Elev. (feet AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>A</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)													
				50	1	5	5	5	NA	5		1	5
MW-30	11/06	363.5	355.5	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
	3/09			<10	0.8 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	0.78 J	0.17 J	<1.0	<3.0	<500	<1.0	21	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10 J	0.14 J	<1.0	<1.0	<3.0	NS	<1.0	<5.1	<1.0	37
MW-31	9/06	363.7	355.4	NS	NS	NS	NS	NS	NS	NS	1.6	3.4	NS
	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			NS	NS	NS	NS	NS	NS	NS	0.5 J	2.7	NS
	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
	3/09			9.4 J	8.3	0.6 J	<1.0	0.8 J	<500	<1.0	<5.0	2.3	<1.0
	9/09			<10	10	0.49 J	<1.0	2.0 J	730	<1.0	<5.0	2.5	<1.0
	4/10			<10	4.8	0.40 J	<1.0	1.3 J	<500	<1.0	<5.0	2.3	<1.0
	10/10			<10	6.9	0.50 J	<1.0	1.5 J	<500 J	<1.0	<5.3	3.5	<1.0
MW-32	11/06	364	356	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
	3/09			<10	0.5 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	<1.0	<1.0	<1.0	<3.0	1,200	<1.0	<5.0	1.1	<1.0
	4/10			<10	0.23 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	0.89 J	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.2	0.87 J	<1.0
MW-33	9/06	344.1	356.1	NS	NS	NS	NS	NS	NS	NS	940	8.0	NS
	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			NS	NS	NS	NS	NS	NS	NS	46	4.2	NS
	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
	3/09			<10	3.2	<1.0	<1.0	<3.0	<500	<1.0	<5.0	2.4	<1.0
	9/09			<10	2.6	0.20 J	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	1.6	<1.0	<1.0	<3.0	<500	<1.0	<5.0	2.0	<1.0
	10/10			<10	1.7	<1.0	<1.0	<3.0	NS	<1.0	<5.1	2.7	<1.0

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Monitoring Well	Sampling Date	Screen Elev. (feet AMSL)		Acetone	Benzene	Toluene	Ethyl-benzene	Xylene <sup>A</sup>	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)													
				50	1	5	5	5	NA	5	5	1	5
MW-34	11/06	362.7	354.7	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
	3/09			14	1.4	0.7 J	<1.0	1.5 J	<500	<1.0	12	2.0	<1.0
	9/09			24	<1.0	0.64 J	<1.0	1.7 J	1,000	<1.0	<5.0	2.5	<1.0
	4/10			50 J	0.82 J	0.42 J	<1.0	1.4 J	<500	<1.0	<5.0	2.4	<1.0
	10/10			20	1.0	0.44 J	<1.0	1.3 J	<500 J	<1.0	1.8 J	2.9	<1.0
	MW-35			11/06	363	355	R	<1.0	<5.0	<4.0	<5.0	<500	<1.0
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
3/09		<10	<1.0	<1.0			<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
9/09		6.5 J	<1.0	0.16 J			<1.0	<3.0	1,100	<1.0	<5.0	<1.0	<1.0
4/10		<10 J	<1.0	<1.0			<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
10/10		<10	<1.0	<1.0			<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
MW-36 <sup>F</sup>		9/06	363.6	355.6			NS	NS	NS	NS	NS	NS	NS
	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	<1.0	<3.0
	8/07	NS			NS	NS	NS	NS	NS	NS	740	<5.0	NS
	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
	3/09	28			2.4	0.8 J	<1.0	2.8 J	<500	<1.0	150	2.8	<1.0
	6/09	NS			NS	NS	NS	NS	NS	NS	460	<5.0	NS
	9/09	21			3.1	0.96 J	<1.0	3.2	<500	<1.0	390	3.1	<1.0
4/10	<10 J	3.3	1.1	0.26 J	5.4	<500	<1.0	77	2.6	<1.0			
10/10	12	3.9	1.2	0.28 J	4.8	<500 J	<1.0	620	<5.0	<1.0			
TW-01	11/06	365.1	355.4	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
	3/09			<10	1.9	<1.0	<1.0	0.6 J	22,300	<1.0	<5.0	<0.5	<1.0
	9/09			2.9 J	<1.0	0.11 J	<1.0	<3.0	970	<1.0	<5.0	1.1	<1.0
	4/10			<10	0.32 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	1.0	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.3	1.3	<1.0
	TW-02RR <sup>BE</sup>			9/06	363.3	353.3	NS	NS	NS	NS	NS	NS	NS
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		NS	NS	NS			NS	NS	NS	NS	4,000 J	<20	NS
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]
3/09		<10 [<10]	5.0 [4.6]	1.0 [1.0 J]			1.5 [1.6]	4.2 [4.1]	<500 [<500]	<1.0 [<1.0]	2,000 [1,600]	<10 [<10]	<1.0 [<1.0]
6/09		NS	NS	NS			NS	NS	NS	NS	2,800	<20	NS
9/09		<10 [<10]	4.3 [4.2]	0.79 J [0.81 J]			1.2 [1.3]	3.5 [3.6]	1,000 [1,200]	<1.0 [<1.0]	1,600 [1,500]	<10 [<10]	<1.0 [<1.0]
4/10	9.5 J [12 J]	4.1 [4.0]	0.78 J [0.75 J]	1.2 [1.2]	4.2 [4.0]	<500 [<500]	<1.0 [<1.0]	2,800 J [3,100 J]	<20 J [<20 J]	<1.0 [<1.0]			
10/10	<10 [<10]	3.3 [3.0]	0.82 J [0.76 J]	1.0 [0.91 J]	3.6 [3.6]	<500 J [<500 J]	<1.0 [<1.0]	760 [810]	<5.0 [2.2 J]	<1.0 [<1.0]			
PZ-4D	6/07	350.8	345.9	<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
	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	5.3 J
	6/10			<10	<1.0	<1.0	<1.0	<3.0	NS	<1.0	NS	NS	<1.0

**Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through December 2010, 2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL)		Acetone	Benzene	Toluene	Ethylbenzene	Xylene <sup>A</sup>	Methanol	Trichloroethene	Aniline	N,N-Dimethylaniline	Methylene Chloride
		Top	Bottom										
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	NA	5	5	1	5
PZ-4S	6/07	362.79	357.88	<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
	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	<b>17</b>
	6/10			<10 J	<1.0	<1.0	<1.0	<3.0	NS	<1.0	NS	NS	<1.0
PZ-5D	11/06	353.5	348.6	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 <sup>B</sup>	11/06	361.42	356.52	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
SP-2-2	9/10	0	0	NS	NS	NS	NS	NS	NS	<5.0	<1.0	NS	
SP-2-3	9/10	0	0	NS	NS	NS	NS	NS	NS	<5.0	<1.0	NS	
SP-2-4	9/10	0	0	NS	NS	NS	NS	NS	NS	<5.0	<b>1.1</b>	NS	
PZ-W	9/10	0	0	NS	NS	NS	NS	NS	NS	NS	<b>240</b>	<b>4.3</b>	NS
	10/10			NS	NS	NS	NS	NS	NS	<b>150</b>	<b>4.1</b>	NS	
IW-4	9/10	0	0	NS	NS	NS	NS	NS	NS	NS	<b>2.2 J</b>	<b>2.6</b>	NS
IW-5	9/10	0	0	NS	NS	NS	NS	NS	NS	NS	<5.0	<b>2.8</b>	NS

**General Notes:**

- Concentrations are presented in micrograms per liter, which is equivalent to parts per billion.
- Compounds detected are indicated by bold-faced type.
- Detections exceeding New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards (TOGS 1.1.1; NYSDEC, 1998) are indicated by shading.
- Duplicate sample results are presented in brackets (e.g., [14]).
- Replacement wells for MW-8 and MW-9 were installed 8/95.
- Replacement wells for MW-17, MW-24S, MW-24D, and TW-02 were installed 11/97 - 12/97.
- The sampling events in 9/06 and 8/07 were interim sampling events to gauge the effects of the in-situ aerobic biodegradation treatment activities.
- The laboratory analytical results for the duplicate sample collected from monitoring well MW-27 during the 8/07 sampling event indicated the presence of aniline at 4,300 micrograms per liter. Because aniline was not detected in the original sample, MW-27, DUP-1, and TW-02RR were all reanalyzed outside of hold time due to the difference in concentration between the parent sample and the field duplicate. The duplicate result for aniline was positively identified; however, the associated numerical value is an estimated concentration only. The concentration for TW-02RR was significantly lower than the original result. Therefore, the original result for TW-02RR was qualified as estimated.
- The sampling event in 6/10 was an interim sampling event to check for the presence of methylene chloride.

**Superscript Notes:**

- <sup>A</sup> = Data presented is total xylenes (m- and p-xylenes and o-xylenes).  
<sup>B</sup> = Wells MW-8S and TW-02R were abandoned in 8/04 and replacement wells MW-8SR and TW-02RR were installed in 8/04.  
<sup>C</sup> = Well MW-9 was abandoned during OU1 soil remediation activities (1994).  
<sup>D</sup> = Wells/piezometers MW-17, MW-24S, and MW-24D were abandoned 11/97 - 1/98.  
<sup>E</sup> = Wells/piezometers MW-1, MW-19, MW-36, PZ-5S, and TW-02RRR were abandoned 11/10. Replacement wells TW-02RRR and MW-36R were installed in 11/10.

**Abbreviations:**

AMSL = Above mean sea level (NGVD of 1929).  
 NA = Standard not available.  
 NS = Not sampled.  
 TOGS = Technical & Operational Guidance Series

**Analytical Qualifiers:**

- J = The compound was positively identified; however, the numerical value is an estimated concentration only.  
 < = Compound was not detected at the listed quantitation limit.  
 R = The sample results were rejected.



**Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2010, 2010 Biannual Process Control Monitoring Report, McKesson EnviroSystems, Former Bear Street Facility, Syracuse, New York**

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36 (Area 2)	TW-02RR (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

**Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2010,  
2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36 (Area 2)	TW-02RR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
2/1/2008	0.43	0.38	N/R	0.89	1.00	N/R
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	0.4	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

**Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2010, 2010 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York**

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36 (Area 2)	TW-02RR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
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
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

**Notes:**

1. No readings were taken at MW-36 between 8/21/2008 and 6/1/2008.
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.

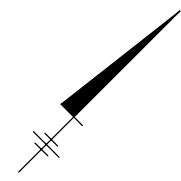
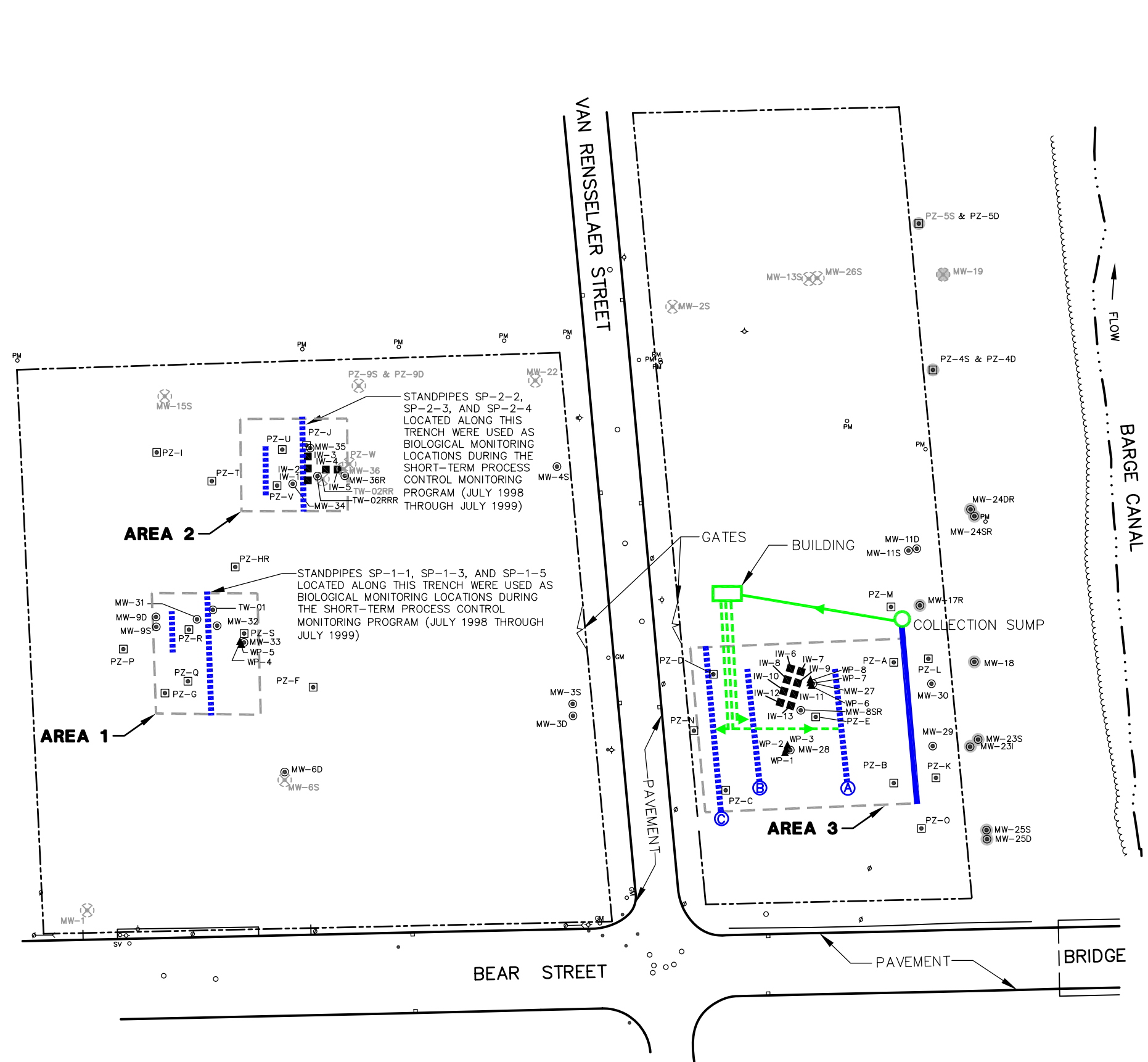
**Abbreviations:**

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

ARCADIS

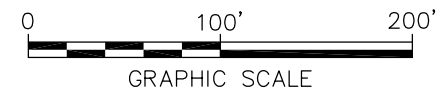
**Figures**

CITY: SYRACUS, NY DIV/GROUP: ENVI/141 DB: RCA LAFGMS K. SARTORI LD. PIC: PM: B. BYRNES TM: LVR: ON=OFF=REF: AREA-HIGHER TREE  
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- 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
  - OR ○ BIENNIAL DOWNGRADE PERIMETER GROUNDWATER MONITORING LOCATION
  - PZ-A PIEZOMETER
  - MW-26S ○ PUMPING WELL
  - PZ-W ○ REMOVED/DECOMMISSIONED WELL/PIEZOMETER
  - WP-8 ▲ WELL POINT
  - IW-3 ■ OXYGEN INFUSION WELL
  - APPROXIMATE BOUNDARY OF AREA
  - GROUNDWATER WITHDRAWAL TRENCH
  - ⓐ --- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
  - PIPING TO BUILDING
  - PIPING FROM BUILDING
  - TREE LINE
  - EDGE OF BARGE CANAL

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



McKESSEON ENVIROSYSTEMS  
 FORMER BEAR STREET FACILITY  
 SYRACUSE, NEW YORK

**BIENNIAL PROCESS CONTROL MONITORING REPORT**

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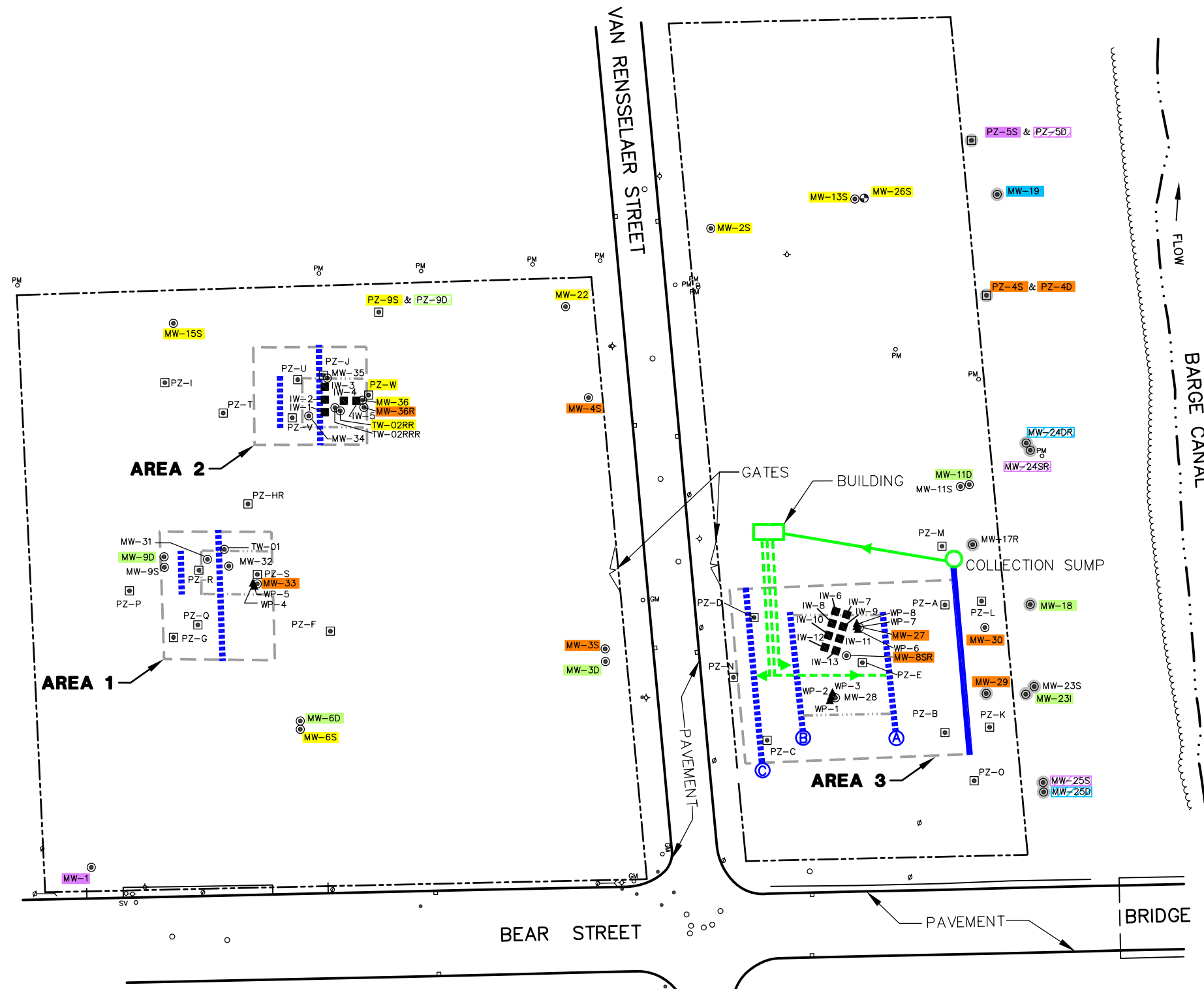
**SITE PLAN**

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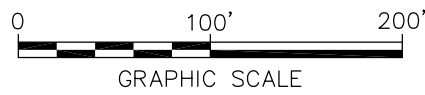
FIGURE  
**1**

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**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 (NOT SAMPLED FOR METHANOL)
- OR ○ BIANNUAL DOWNGRADE PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A □ PIEZOMETER
- MW-26S ○ PUMPING WELL
- WP-8 ▲ WELL POINT
- IW-3 ■ OXYGEN INFUSION WELL
- - - - APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- Ⓐ GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- - - PIPING FROM BUILDING
- ~ TREE LINE
- · - · - EDGE OF BARGE CANAL
- REMOVE WELL FROM COC MONITORING PROGRAM AND DECOMMISSION
- ▨ REMOVE WELL FROM COC MONITORING PROGRAM
- REMOVE METHANOL ANALYSIS FROM COC MONITORING PROGRAM
- REMOVE WELL FROM HYDRAULIC MONITORING PROGRAM
- ▨ REMOVE WELL FROM HYDRAULIC MONITORING PROGRAM AND DECOMMISSION.
- REMOVE WELL FROM BOTH COC AND HYDRAULIC MONITORING PROGRAMS AND DECOMMISSION
- ▨ REMOVE WELL FROM BOTH COC AND HYDRAULIC MONITORING PROGRAMS
- DECOMMISSION WELL



- NOTES:**
1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
  2. LOCATIONS ARE APPROXIMATE
  3. TW-02RR WAS REPLACED BY TW-02RRR 11/10.
  4. PZ-W AND MW-36 WERE REPLACED BY MW-36R 11/10.
  5. PER NYSDEC, MW-4S WAS REINSTATED INTO THE COC MONITORING PROGRAM FOR NON-METHANOL CONSTITUENTS 11/10.

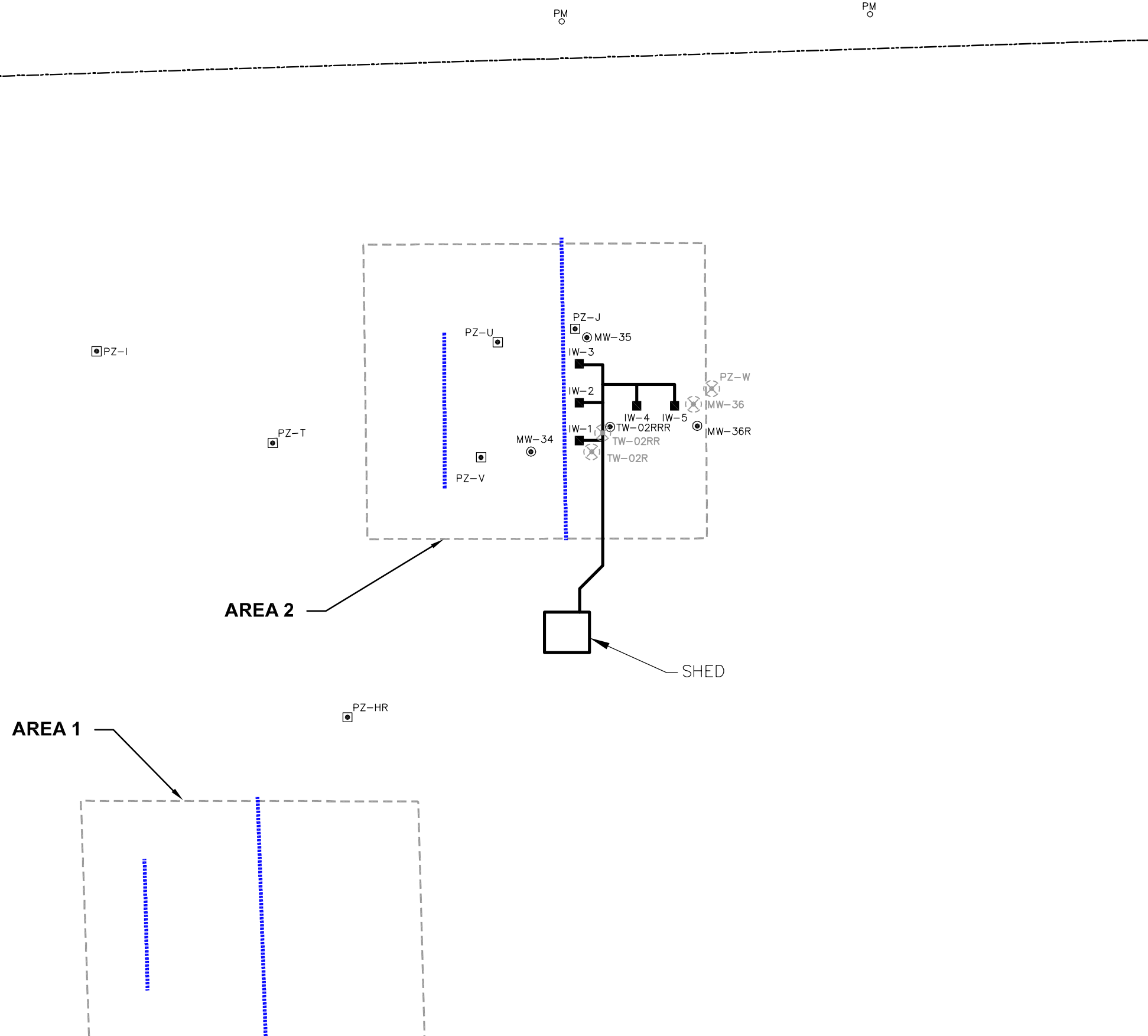
McKESSEON ENVIROSYSTEMS  
 FORMER BEAR STREET FACILITY  
 SYRACUSE, NEW YORK  
**BIANNUAL PROCESS CONTROL MONITORING REPORT**

**MODIFICATIONS TO  
 GROUNDWATER MONITORING  
 PROGRAM**

**ARCADIS**

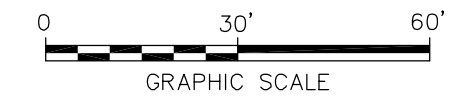
FIGURE  
**2**

CITY: SYRACUSE, NY DIV: GROUP: ENVY: 41 DB: NSMITH: GALL, K. SARTORI, W. JONES LD: PIC: FM: B. BYRNES TM: LYR: ONE: OFF: REF: AREA: HIGHIER  
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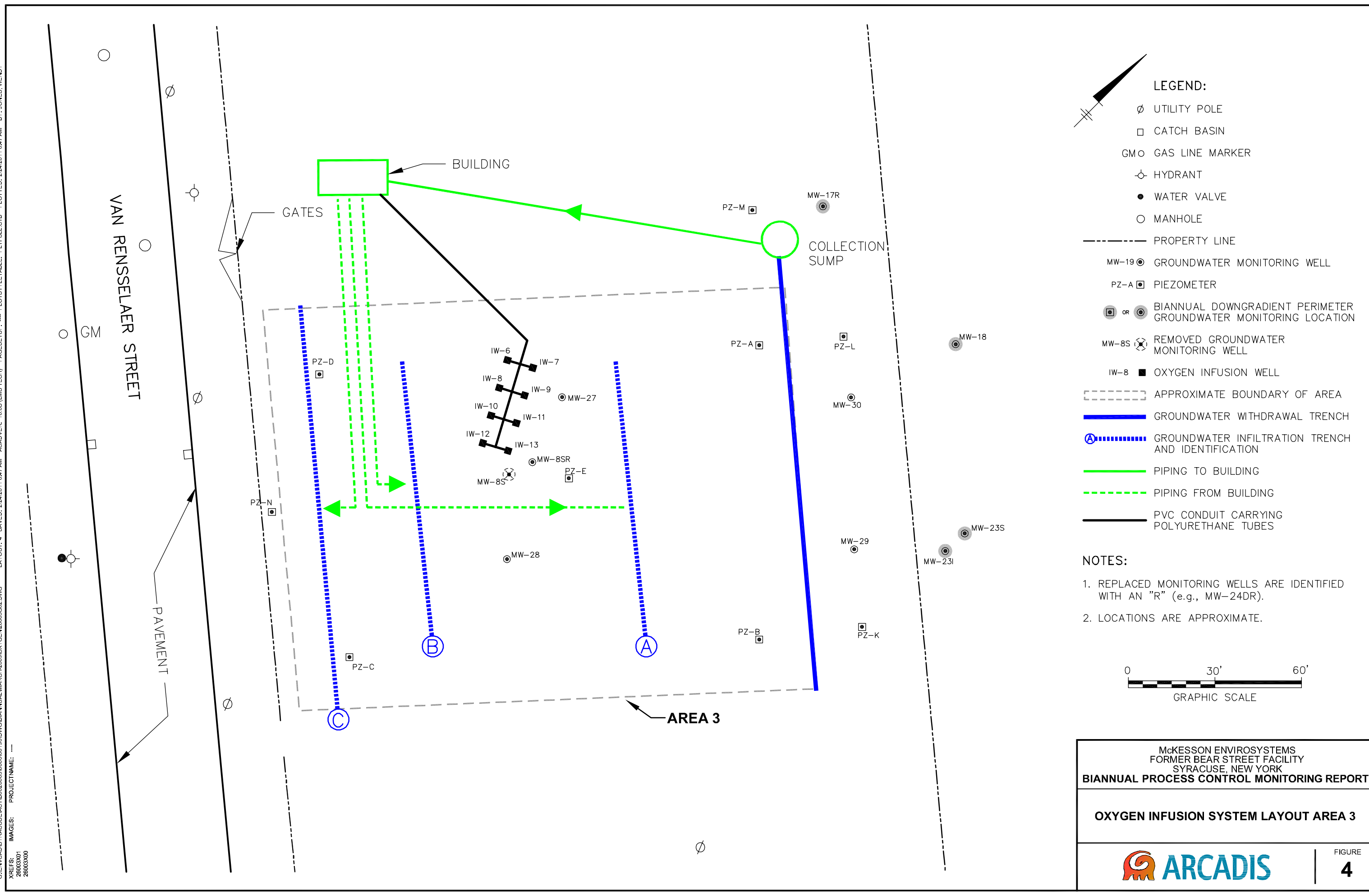
- LEGEND:**
- PROPERTY LINE
  - PM ○ PETROLEUM PIPE LINE MARKER
  - MW-19 ● GROUNDWATER MONITORING WELL
  - PZ-A ■ PIEZOMETER
  - TW-02R ⊗ REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
  - IW-3 ■ OXYGEN INFUSION WELL
  - APPROXIMATE BOUNDARY OF AREA
  - ..... GROUNDWATER INFILTRATION TRENCH
  - PVC CONDUIT CARRYING POLYURETHANE TUBES

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



MCKESSON ENVIROSYSTEMS FORMER BEAR STREET FACILITY SYRACUSE, NEW YORK <b>BIANNUAL PROCESS CONTROL MONITORING REPORT</b>	
<b>OXYGEN INFUSION SYSTEM LAYOUT AREA 2</b>	
	FIGURE <b>3</b>

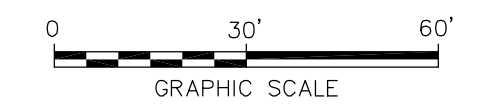
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 PLOTTED: 2/24/2011 8:47 AM BY: JONES, WENDY



**LEGEND:**

- UTILITY POLE
- CATCH BASIN
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- GROUNDWATER MONITORING WELL
- PIEZOMETER
- BIANNUAL DOWNGRAIDENT PERIMETER GROUNDWATER MONITORING LOCATION
- REMOVED GROUNDWATER MONITORING WELL
- OXYGEN INFUSION WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- PVC CONDUIT CARRYING POLYURETHANE TUBES

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



McKesson ENVIROSYSTEMS  
 FORMER BEAR STREET FACILITY  
 SYRACUSE, NEW YORK  
**BIANNUAL PROCESS CONTROL MONITORING REPORT**

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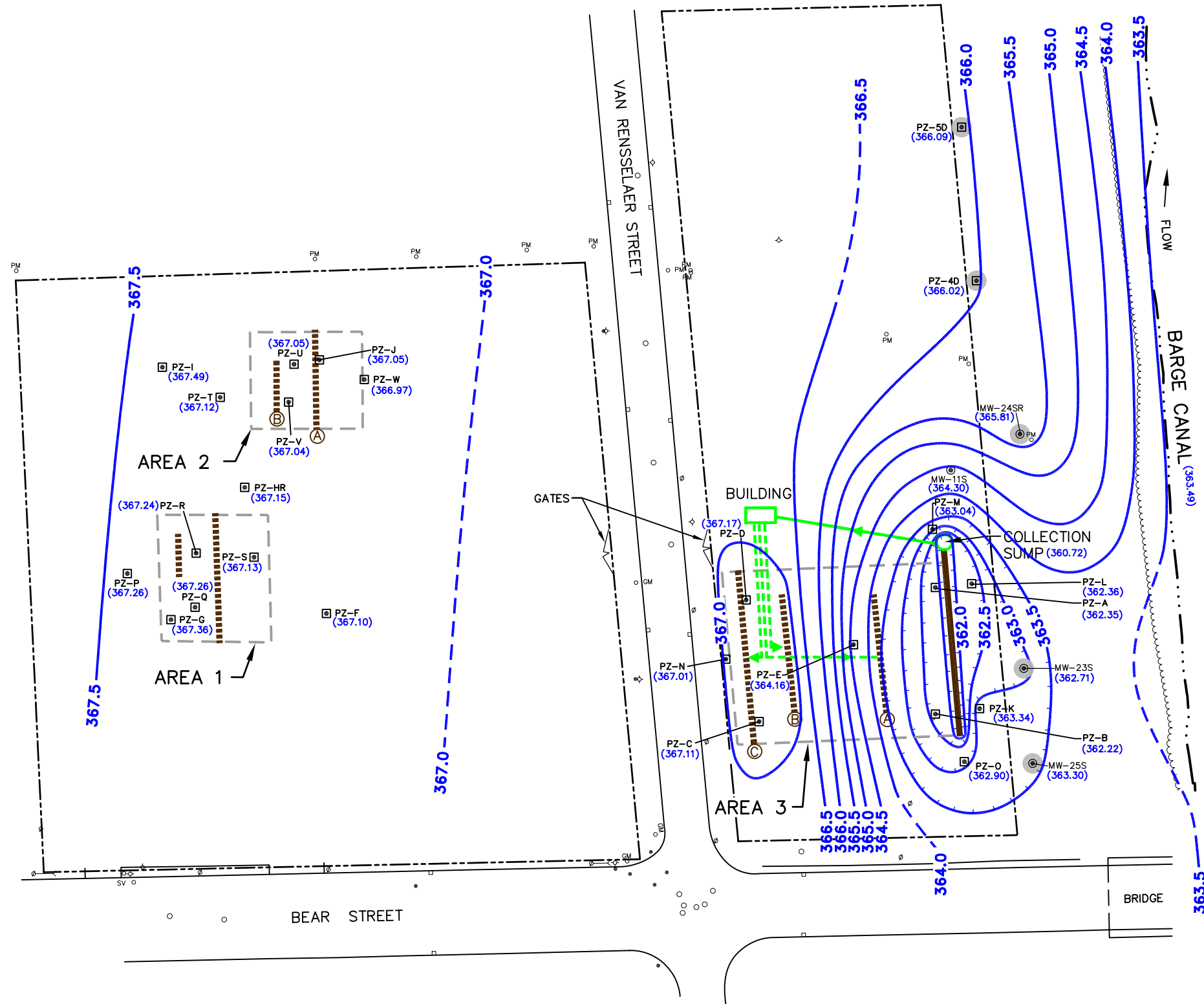
**OXYGEN INFUSION SYSTEM LAYOUT AREA 3**

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FIGURE  
**4**



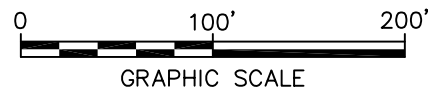
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**LEGEND:**

- ⊕ UTILITY POLE
- CATCH BASIN
- PM ○ PETROLEUM PIPE LINE MARKER
- GM ○ GAS LINE MARKER
- SV ○ SEWER VENT
- ⊕ HYDRANT
- WATER VALVE
- MANHOLE
- ~~~~~ TREE LINE
- · - · - EDGE OF BARGE CANAL
- - - - - PROPERTY LINE
- MW-19 ○ GROUNDWATER MONITORING WELL
- OR ○ BIENNIAL DOWNGRADE 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
- 366.0 ▬ POTENTIOMETRIC CONTOUR (FEET ABOVE MEAN SEA LEVEL) DASHED WHERE INFERRED
- (366.02) CLOSED DEPRESSION
- (366.02) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

- 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 = 0.5 FOOT.



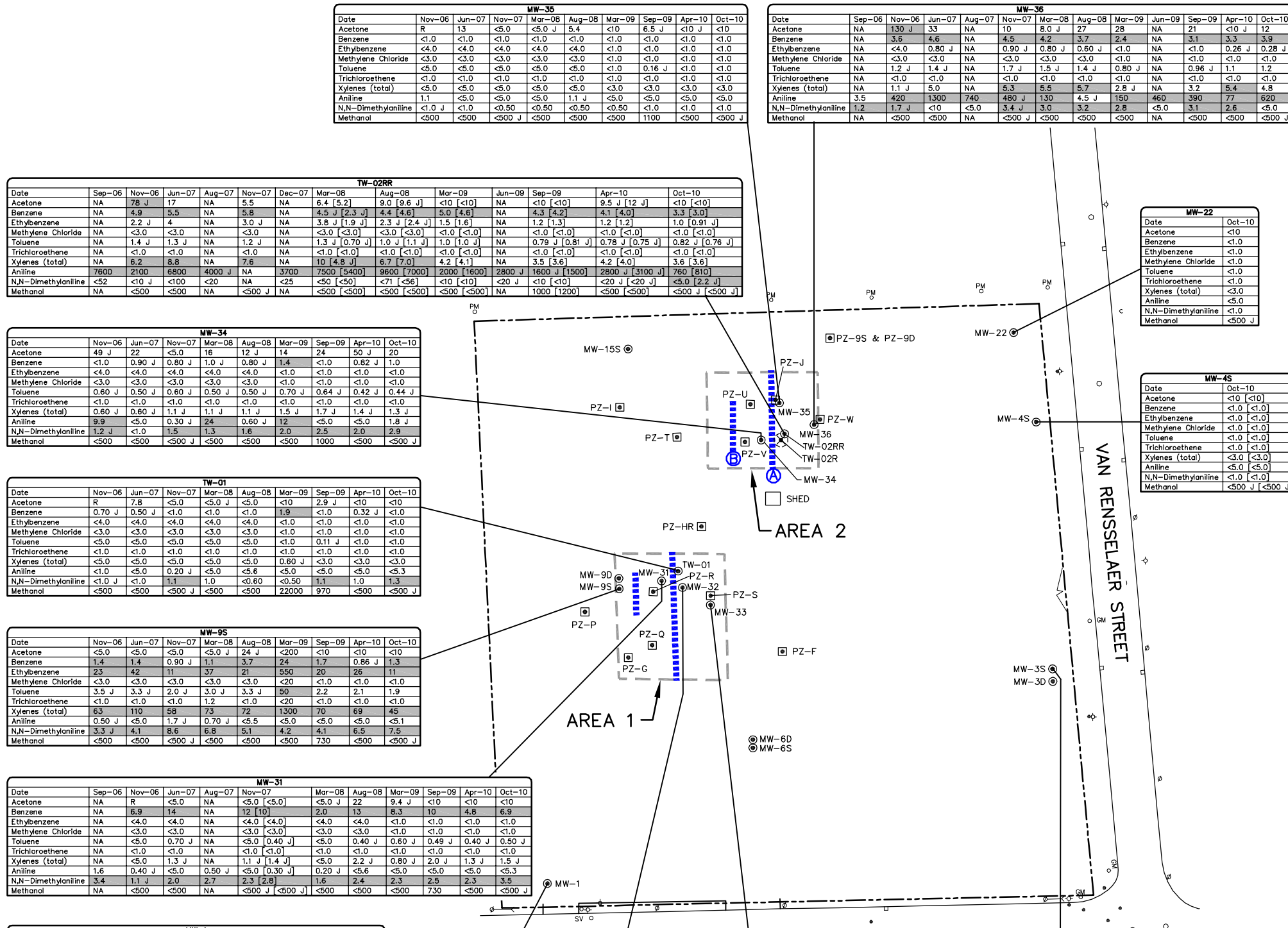
McKESON ENVIROSYSTEMS  
 FORMER BEAR STREET FACILITY  
 SYRACUSE, NEW YORK  
**BIENNIAL PROCESS CONTROL MONITORING REPORT**

**POTENTIOMETRIC SURFACE OF THE  
 SHALLOW HYDROGEOLOGIC UNIT  
 SAND LAYER - OCTOBER 11, 2010**



CITY: SYRACUSE, N.Y. DIV: GROUP ENV: CAD-141 DB: N.S.MITHGALL, L. FORAKER, W. JONES, LD: PIC: D. ULM, PM: D. PENNIMAN, TM: D. PENNIMAN, LYN: ON, OFF: REF --- PLOT: STYLE: TABLE: PLT: FULL: CTT: B: JONES, WENDY

PROJECT NAME: IMAGES: XREFS: 280003X01 280003X00



### LEGEND:

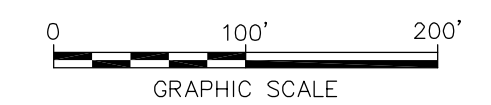
- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19
- PZ-A
- TW-02R
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH

### CONCENTRATION (ppb)

Date	Sep-06	Nov-06	Jun-07	Aug-07	Nov-07	Mar-08	Aug-08	Mar-09	Jun-09	Sep-09	Apr-10	Oct-10
Acetone	NA	130 J	33	NA	10	8.0 J	27	28	NA	21	<10 J	12
Benzene	NA	3.6	4.6	NA	4.5	4.2	3.7	2.4	NA	3.1	<10 J	3.9
Ethylbenzene	NA	<4.0	0.80 J	NA	0.90 J	0.80 J	0.60 J	<1.0	NA	<1.0	0.26 J	0.28 J
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	NA	<1.0	<1.0	<1.0
Toluene	NA	1.2 J	1.4 J	NA	1.7 J	1.5 J	1.4 J	0.80 J	NA	0.96 J	1.1	1.2
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0
Xylenes (total)	NA	1.1 J	5.0	NA	5.3	5.5	5.7	2.8 J	NA	3.2	5.4	4.8
Aniline	NA	3.5	420	1300	740	480 J	130	4.5 J	150	460	390	77
N,N-Dimethylaniline	NA	1.2	1.7 J	<1.0	<5.0	3.4 J	3.0	3.2	2.8	<5.0	3.1	2.6
Methanol	NA	<500	<500	NA	<500 J	<500	<500	<500	NA	<500	<500	<500 J

### NOTES:

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



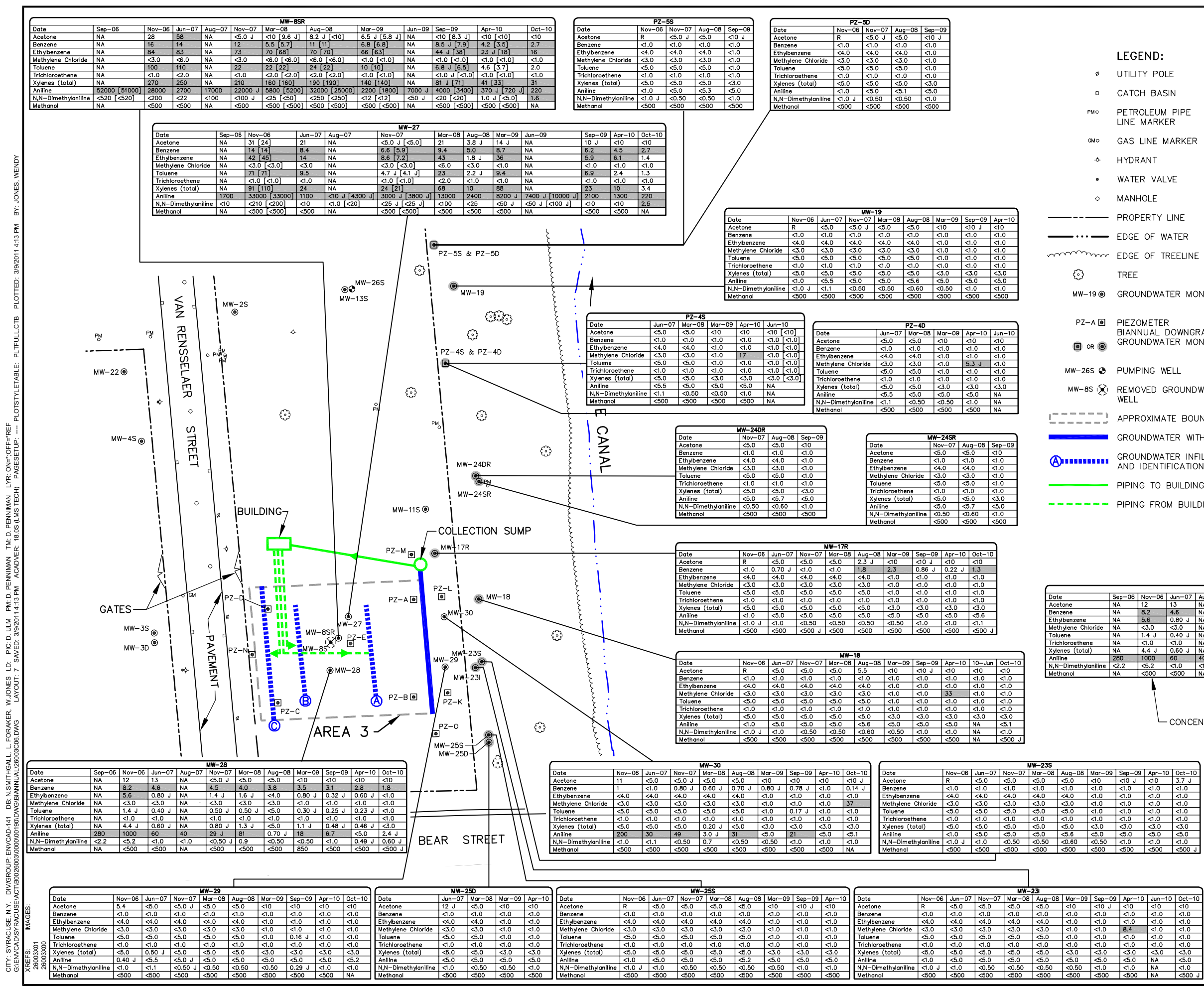
### NYSDEC GQS

Acetone	50
Benzene	1
Toluene	5
Ethylbenzene	5
Xylene	5
Methanol	NS
Trichloroethene	5
Aniline	5
N,N-dimethylaniline	1
Methylene Chloride	5

McKESSON ENVIROSYSTEMS  
FORMER BEAR STREET FACILITY  
SYRACUSE, NEW YORK  
**BIANNUAL PROCESS CONTROL MONITORING REPORT**

**GROUNDWATER MONITORING DATA SUMMARY  
FOR SEPTEMBER 2006 - OCTOBER 2010  
AREAS 1 & 2 (AEROBIC TREATMENT)**



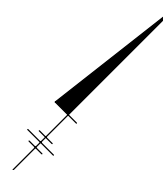


**LEGEND:**

- Ø UTILITY POLE
- CATCH BASIN
- PM PETROLEUM PIPE LINE MARKER
- GM GAS LINE MARKER
- ⊕ HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- EDGE OF WATER
- EDGE OF TREELINE
- ⊙ TREE
- ⊙ MW-19 GROUNDWATER MONITORING WELL
- ⊙ PZ-A PIEZOMETER
- ⊙ OR 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 AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING

**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 FIGURES 2 AND 4).
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. THE 6/10 SAMPLING EVENT WAS AN INTERIM SAMPLING EVENT ANALYZING FOR VOLATILE ORGANIC COMPOUNDS ONLY.
11. 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).
12. NS - STANDARD NOT AVAILABLE.

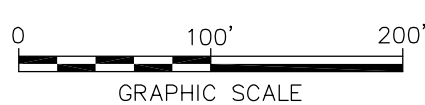


**SAMPLE IDENTIFICATION**

Date	Sep-06	Nov-06	Jun-07	Aug-07	Nov-07	Mar-08	Aug-08	Mar-09	Sep-09	Apr-10	Oct-10
Acetone	NA	12	13	NA	<5.0	<5.0	<10	<10	<10	<10	<10
Benzene	NA	8.2	4.6	NA	4.5	4.0	3.8	3.1	2.8	1.8	
Ethylbenzene	NA	5.6	0.80 J	NA	1.4 J	1.6 J	<4.0	0.80 J	0.32 J	0.60 J	<1.0
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	NA	1.4 J	0.40 J	NA	0.50 J	0.50 J	<5.0	0.30 J	0.25 J	0.23 J	<1.0
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	NA	4.4 J	0.60 J	NA	0.80 J	1.3 J	<5.0	1.1 J	0.48 J	0.46 J	<3.0
Aniline	280	1000	60	40	29 J	81	0.70 J	18	6.7	<5.0	2.4 J
N,N-Dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.50 J	0.9	<0.50	<0.50	<1.0	0.49 J	0.60 J
Methanol	NA	<500	<500	NA	<500	<500	<500	850	<500	<500	<500 J

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

CONCENTRATION (ppb)

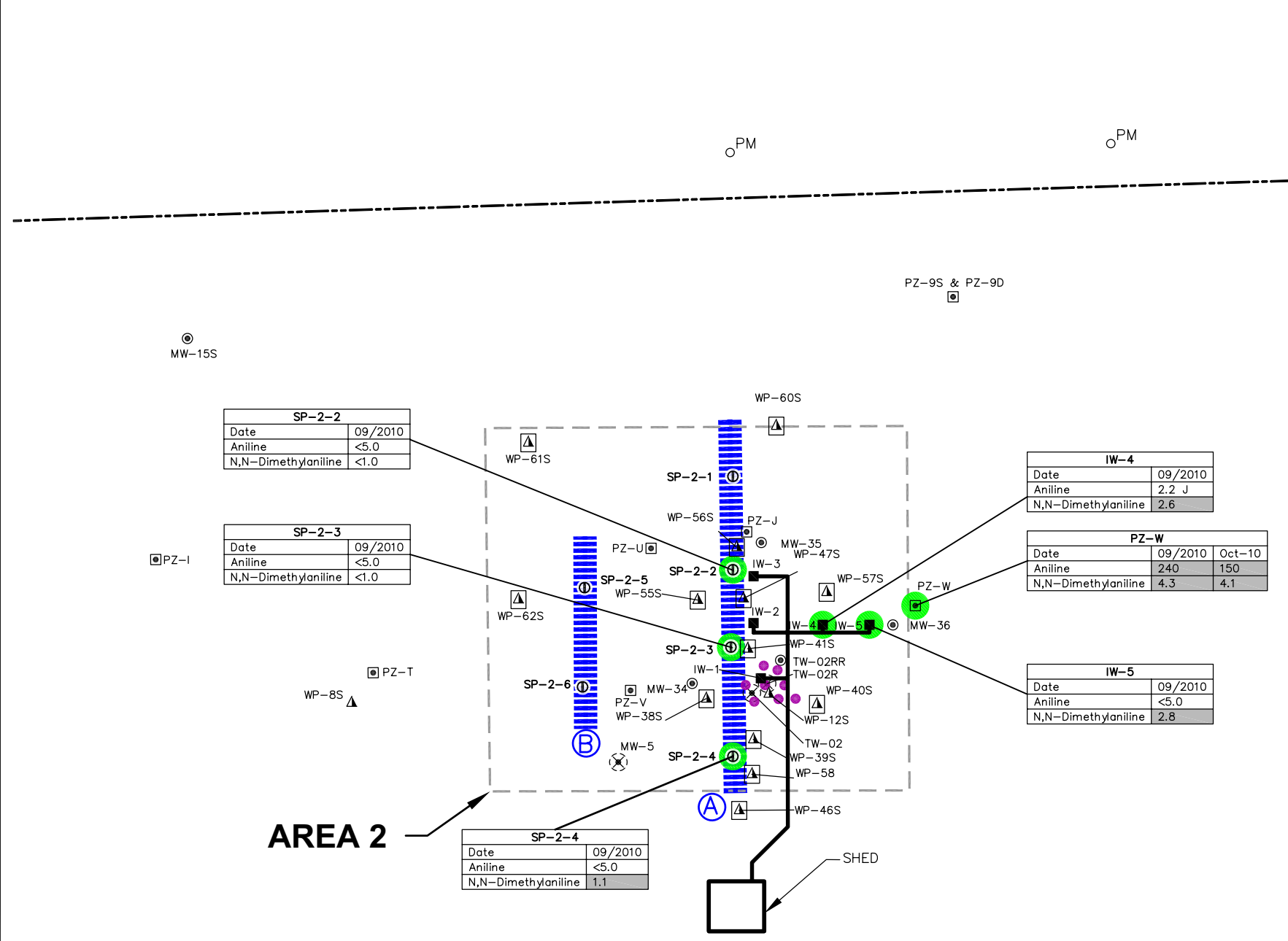
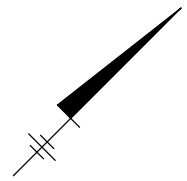


**McKESSON ENVIROSYSTEMS  
FORMER BEAR STREET FACILITY  
SYRACUSE, NEW YORK  
BIANNIAL PROCESS CONTROL MONITORING REPORT**

**GROUNDWATER MONITORING DATA SUMMARY  
FOR SEPTEMBER 2006 - OCTOBER 2010  
AREA 3 (AEROBIC TREATMENT)**



CITY: SYRACUSE, NY DIV: GROUP: ENVCAD-141 DB: N.S.MITHGALL, L.FORAKER, W.JONES LD: PIC: D.ULM, P.M.D. PENNIMAN, T.M. D. PENNIMAN LTR: ONE-OFF-REF  
 G:\ENVCAD\SURFACE\ACT\B002603\0000100190\DWG\BIANNIAL\2603C06.DWG LAYOUT: 7 SAVED: 3/9/2011 4:13 PM ACADVER: 18.0S (LMS TECH) PAGES: 10 PLOTTED: 3/9/2011 4:13 PM BY: JONES, WENDY



- LEGEND:**
- PM ○ PETROLEUM PIPE LINE MARKER
  - PROPERTY LINE
  - MW-19 ⊙ GROUNDWATER MONITORING WELL
  - PZ-A ◻ PIEZOMETER
  - TW-02R ⊗ REMOVED GROUNDWATER MONITORING WELL
  - WP-26S ▲ SHALLOW TEMPORARY WELL POINT INSTALLED DURING THE 1995 SUPPLEMENTAL INVESTIGATION
  - WP-48S ▲ SHALLOW TEMPORARY WELL POINT INSTALLED DURING THE PRE-DESIGN ACTIVITIES
  - BOUNDARY OF IMPACTED AREA
  - Ⓐ ||||| GROUNDWATER WITHDRAWAL TRENCH
  - APPROXIMATE LOCATION OF SOIL REMOVED BY 12-INCH OUTSIDE DIAMETER AUGER TO AN ESTIMATED DEPTH OF 20 FT BELOW GROUND SURFACE (BGS) AND BACKFILLED WITH RAMM AND SUGA-LIK™ AMENDED PEA STONE IN AUGUST 2004.
  - SP-2-6 ⊕ STANDPIPE LOCATION
  - IW-4 ■ OXYGEN INFUSION WELL
  - PVC CONDUIT CARRYING POLYURETHANE TUBES (APPROXIMATE LOCATION)
  - SEPTEMBER 2010 INTERIM SAMPLING LOCATIONS

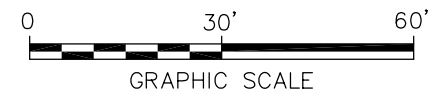
- NOTES:**
1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
  2. TRENCH LOCATIONS ARE APPROXIMATE.
  3. MONITORING LOCATIONS ARE APPROXIMATE.
  4. MW-5 WAS ABANDONED IN 11/97. TW-02 WAS ABANDONED IN 12/97. TW-02R WAS ABANDONED IN 8/04.
  5. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
  6. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
  7. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1)
  8. GROUNDWATER SAMPLES COLLECTED DURING THE SEPTEMBER 2010 INTERIM EVENT WERE ANALYZED FOR ANILINE AND N,N-DIMETHYLANILINE ONLY.

SAMPLE IDENTIFICATION

PZ-W		
Date	09/2010	Oct-10
Aniline	240	150
N,N-Dimethylaniline	4.3	4.1

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.



McKESSON ENVIROSYSTEMS  
 FORMER BEAR STREET FACILITY  
 SYRACUSE, NEW YORK  
**BIANNUAL PROCESS CONTROL MONITORING REPORT**

**AREA 2 PRELIMINARY DELINEATION  
 GROUNDWATER SAMPLING SUMMARY  
 SEPTEMBER 13 & 14, 2010**


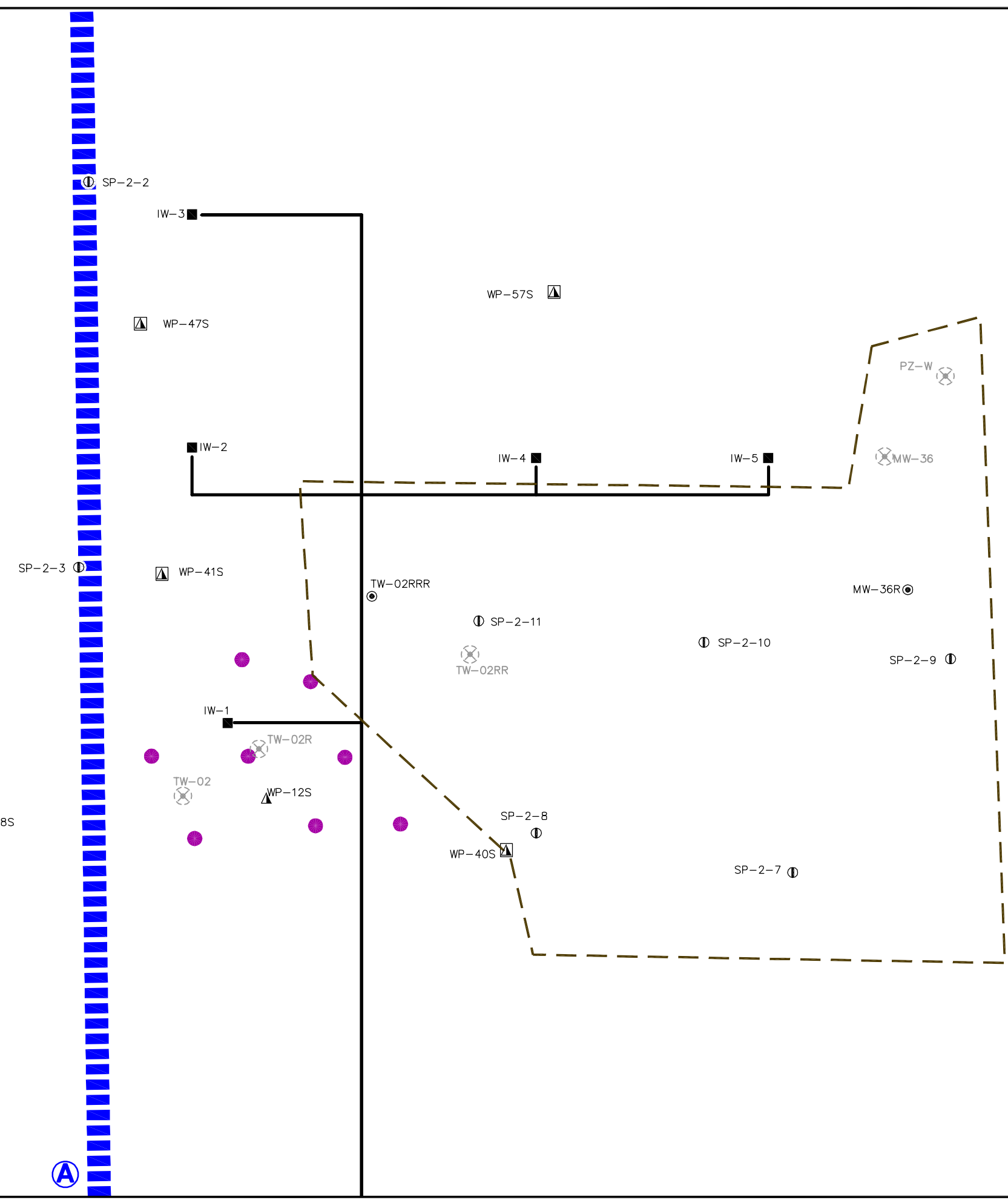
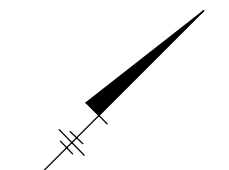


FIGURE  
**8**

CITY: SYRACUSE, NY; GROUP: ENVICAD; DR: W. JONES; PIC: D. LILM; PRN/TM: D. PENNIMAN; LAYOUT: 9; LAYOUT: 9; SAVED: 4/18/2011 4:42 PM; ACADVER: 18.05; (LMS TECH); PAGES: 18; PLOT: 4/18/2011 4:42 PM; PLOT: 4/18/2011 4:42 PM; BY: JONES, WENDY

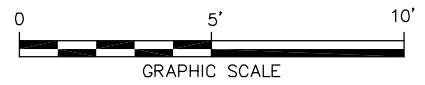
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**LEGEND:**

- MW-19 ● GROUNDWATER MONITORING WELL
- PZ-A ◻ PIEZOMETER
- TW-02R (X) REMOVED/DECOMMISSIONED MONITORING WELL/PIEZOMETER
- WP-26S ▲ SHALLOW TEMPORARY WELL POINT INSTALLED DURING THE 1995 SUPPLEMENTAL INVESTIGATION
- WP-48S ▲ SHALLOW TEMPORARY WELL POINT INSTALLED DURING THE PRE-DESIGN ACTIVITIES
- (A) [Blue dashed line with 'A' in a circle] GROUNDWATER WITHDRAWAL TRENCH
- - - - - TW-02RR SOIL REMOVAL EXCAVATION EXTENTS
- APPROXIMATE LOCATION OF SOIL REMOVED BY 12-INCH OUTSIDE DIAMETER AUGER TO AN ESTIMATED DEPTH OF 20 FT BELOW GROUND SURFACE (BGS) AND BACKFILLED WITH RAMM AND SUGA-LIK™ AMENDED PEA STONE IN AUGUST 2004.
- STANDPIPE LOCATION
- SP-2-6 ○ OXYGEN INFUSION WELL
- IW-4 ◼ PVC CONDUIT CARRYING POLYURETHANE TUBES (APPROXIMATE LOCATION)

- 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. TW-02 WAS ABANDONED IN 12/97. TW-02R WAS ABANDONED IN 8/04. TW02RR, PZ-W, AND MW-36 WERE REMOVED AND REPLACED IN 11/10.



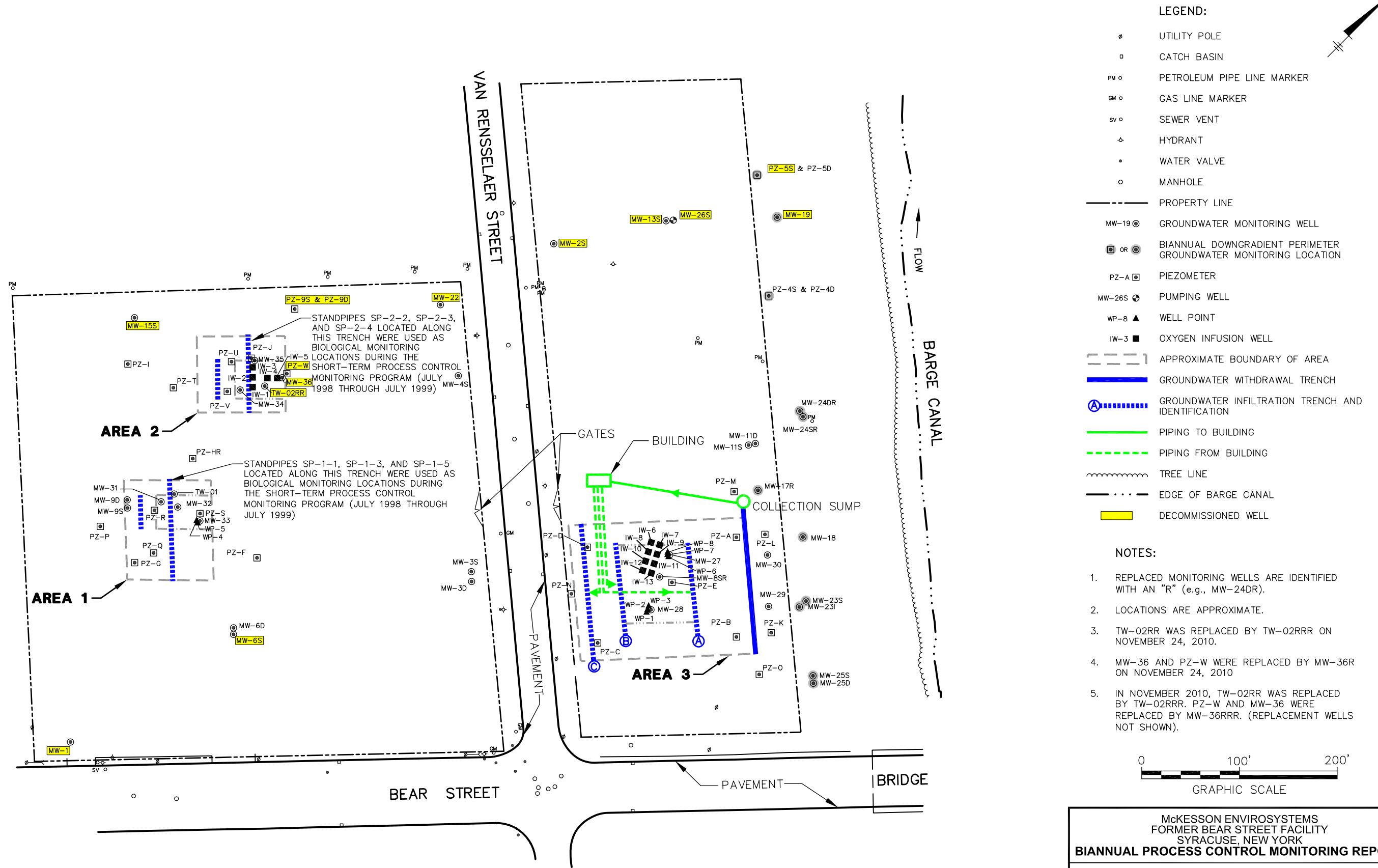
McKESSON ENVIROSYSTEMS  
FORMER BEAR STREET FACILITY  
SYRACUSE, NEW YORK  
**BIANNUAL PROCESS CONTROL MONITORING REPORT**

**SOIL REMOVAL EXTENT AND REPLACEMENT WELL LOCATIONS - AREA 2**



FIGURE  
**9**

CITY: SYRACUS, NY DIV/GRP: EN/141 DB: RCA, K. SARTOR, W. JONES, LD: PIC: PM: B. BYRNES, TM: LVR, ON: OFF=REF, AREA: HIGHER, TREE  
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**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
- ⊙ OR ⊙ BIANNUAL DOWNGRADE PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A □ PIEZOMETER
- MW-26S ⊕ PUMPING WELL
- WP-8 ▲ WELL POINT
- IW-3 ■ OXYGEN INFUSION WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- ⓐ --- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- TREE LINE
- EDGE OF BARGE CANAL
- DECOMMISSIONED WELL

**NOTES:**

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. LOCATIONS ARE APPROXIMATE.
3. TW-02RR WAS REPLACED BY TW-02RRR ON NOVEMBER 24, 2010.
4. MW-36 AND PZ-W WERE REPLACED BY MW-36R ON NOVEMBER 24, 2010
5. IN NOVEMBER 2010, TW-02RR WAS REPLACED BY TW-02RRR. PZ-W AND MW-36 WERE REPLACED BY MW-36RRR. (REPLACEMENT WELLS NOT SHOWN).

0 100' 200'  
 GRAPHIC SCALE

**McKESON ENVIROSYSTEMS  
 FORMER BEAR STREET FACILITY  
 SYRACUSE, NEW YORK  
 BIANNUAL PROCESS CONTROL MONITORING REPORT**

**DECOMMISSIONED WELLS  
 NOVEMBER 2010**

**ARCADIS**

FIGURE  
**10**