ARCADIS
Infrastructure, environment, buildings

ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.671.9450
www.arcadis-us.com

ENVIRONMENTAL

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

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

Date:
September 10, 2009

Contact:
David J. Ulm

Phone:
315.671.9210

Email:
david.ulm@
arcadis-us.com

Our ref:
B0026003.00190 #10

Dear Mr. Long:

This Biannual Process Control Monitoring Report (Biannual Report) for the McKesson Envirosystems, Bear Street Site (the Site), located at 400 Bear Street in Syracuse, New York, 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 January through June 2009. 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], Revised August 1999). It was also prepared in accordance with a December 29, 1999 letter from David J. Ulm (BBL), to Michael J. Ryan, P.E. (NYSDEC), which presented the long-term process control monitoring program as an addendum to the Site O&M Plan. The Site O&M Plan and the addendum are collectively referred to herein as the Site O&M Plan.

The Site is divided aerially into three areas, Area 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-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 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 BBL's August 2001 Biannual Report, which

documented remedial activities from July through December 2000. That information remains the same; therefore, it is not repeated herein.

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. At that time macronutrient amendments were discontinued in Areas 1, 2 and 3. Mr. Gerald Rider (NYSDEC) verbally approved the modification in October 2008.

The Area 3 in-situ aerobic bioremediation treatment system operated satisfactorily during this reporting period; however, operations were interrupted when the air lines to the in-situ submerged oxygen curtain (iSOC®) units in Area 3 froze causing the units to flood. Per standard operating procedures in these circumstances, the units were pulled from the infusion wells on January 27, 2009 and allowed to dry until February 24, 2009, when they were placed back in the infusion wells. To continue aerating groundwater, another oxygen diffuser was installed in the equalization (EQ) tank and was operable during the time the iSOC® units were removed from the infusion wells. The hydraulic process control system functioned properly during the current reporting period (January through June 2009), and no substantial system repairs were required. Approximately 784,364 gallons of water were pumped from the withdrawal trench and introduced into the Area 3 infiltration trenches, as detailed herein. The information provided in this Biannual Report has been organized into the following sections:

- **I. In-situ Aerobic Bioremediation Treatment Program Activities** – Describes the in-situ aerobic bioremediation treatment program activities conducted from January through June 2009.

- **II. Hydraulic Process Control Monitoring** – Describes the results of the hydraulic process control monitoring activities conducted from January through June 2009.

- **III. Chemical of Concern Process Control and Biannual Groundwater Monitoring Program and Intermediate Monitoring Event** – Describes the March 2009 results of the Chemical of Concern (COC) process control and Biannual

Groundwater Monitoring Program and the June 2009 Intermediate Monitoring Event, and provides a summary of the COC data obtained at the Site from 1988 through June 2009.

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

- **V. Recommendations** – Provides recommendations for the in-situ aerobic bioremediation treatment program and monitoring activities.

I. In-situ Aerobic Bioremediation Treatment Program Activities

The in-situ aerobic bioremediation treatment program was verbally approved by NYSDEC in July 2006 as an alternate approach to lowering aniline and other COC concentrations (i.e., acetone, benzene, ethylbenzene, toluene, xylenes, methanol, trichloroethene, 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) until 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 a 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 and the installation of an oxygen diffuser into the Area 3 EQ tank, which was installed in January 2009. Dilute hydrogen peroxide amendments continue to be added to groundwater in Area 1, but macronutrient amendments were discontinued. Installation of the oxygen diffuser into the Area 3 EQ tank was delayed for 3 months until January 2009; the supplier of the system was inoperative in October 2008 due to damages incurred to their business during the 2008 Gulf Coast hurricane season.

The following activities were conducted as part of the treatment program during this reporting period (see Figures 1, 2 and 3 for referenced locations).

- Added dilute hydrogen peroxide-amended groundwater into the infiltration trenches in Area 1 monthly.

- Added dilute hydrogen peroxide-amended groundwater into piezometers in Area 1 (PZ-S, PZ-G, PZ-Q and PZ-R) and to well points in Area 1 (WP-4 and WP-5) monthly.

- Added oxygen gas to groundwater 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-1, IW-2, IW-3, IW-4, IW-5, IW-6, IW-7, and IW-8).

- Added oxygen gas to groundwater in the Area 3 EQ tank.

- Measured dissolved oxygen (DO) levels in the field once per week 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 EQ tank at a concentration of approximately 25 ppm.

II. 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 activities, groundwater level measurements were obtained at existing 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. Groundwater level measurements were also obtained from selected deep monitoring wells (MW-3D, MW-6D, MW-9D, MW-11D,

MW-18, MW-19, MW-23I, MW-24DR and MW-25D). Additionally, a surface water level measurement was obtained from a staff gauge located in the Barge Canal adjacent to the Site. The hydraulic process control monitoring activities were conducted on March 23, 2009. The monitoring locations are shown on Figure 1. Mr. Long (NYSDEC) was notified of the March 2009 hydraulic and COC monitoring event in the March 19, 2009 Biannual Process Control Monitoring Report for reporting period July through December 2008.

Table 1 summarizes the groundwater level measurements obtained during the March 23, 2009 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 4 depicts the potentiometric surface of the Site's shallow hydrogeologic unit using the March 2009 data set. Site-wide groundwater elevations for this round of sampling were consistent with elevations measured since the 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 4.

- The groundwater withdrawal rate in Area 3 ranged from approximately 2.23 to 5.50 gallons per minute from January through June 2009.

- The withdrawal of groundwater continues to induce a hydraulic gradient in Area 3 from perimeter monitoring wells MW-23S, MW-25S and MW-17R toward the withdrawal trench.

- In Area 3, approximately 75 percent of the recovered groundwater continues to be introduced to the secondary infiltration trench "B," and the remaining 25 percent continues to be introduced to the secondary infiltration trench "A." This introduction of recovered groundwater into the secondary infiltration trenches typically increases the rate at which oxygen-amended groundwater moves through the area of relatively higher concentrations of COCs (between the secondary infiltration and recovery trenches).

- The hydraulic data that were obtained over the 10-year 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 1.01 to 2.21 millisiemens per centimeter (mS/cm), which is consistent with the range of the 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 the operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench.

III. Chemical of Concern Process Control and Biannual Groundwater Monitoring Program and Intermediate Monitoring Event

The groundwater COCs for the Site are acetone, benzene, toluene, ethylbenzene, xylene, methanol, tricholoethene, aniline, N, N-dimethylaniline, and methylene chloride. The COC process control and Biannual Groundwater Monitoring Program activities were conducted from March 23 through 27, 2009, in accordance with the Site O&M Plan. Groundwater samples were collected March 24 through 27, 2009. In addition, the following groundwater quality parameters were measured in the field during this March 2009 COC sampling event: temperature, conductivity, DO and oxidation/reduction potential. The existing monitoring wells and piezometers that were 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.

In accordance with the requirements of the NYSDEC-approved monitoring program, laboratory analytical results for the March 2009 samples were validated. A summary of these validated COC groundwater analytical results is presented in Table 3 and shown on Figures 5 and 6. These figures and table also summarize the COC groundwater analytical results obtained during the biannual monitoring events conducted from September 2006 through March 2009, 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 on the table and figures in Attachment A. Copies of the validated analytical laboratory reports associated with the March 2009 sampling event are presented in Attachment B. A summary of the COC analytical results and DO measurements for the downgradient perimeter monitoring locations and for each of the three areas is presented herein.

During the March 2009 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.

An intermediate monitoring event was performed on June 15, 2009 to further monitor the effectiveness of the in-situ aerobic bioremediation treatment program. Groundwater samples were collected from selected Area 2 (MW-36 and TW-02RR) and Area 3 (MW-8SR and MW-27) monitoring wells. Each sample was analyzed for aniline and N,N-dimethylaniline. The validated results of this sampling event are reported in this biannual report. A copy of the validated analytical laboratory reports associated with the June 2009 sampling event is also presented in Attachment B.

Additionally, DO levels continued to be measured on a weekly basis 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.

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

Area 1

- COC concentrations detected in groundwater samples collected from Area 1 monitoring wells during March 2009 were generally low, ranging from non-detect to concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standard (Table 3 and Figure 5). A majority of COC concentrations detected during March 2009 at Area 1 monitoring wells were approximately equal to or below concentrations detected during the August 2008 sampling event, with the exception of the benzene concentration detected at TW-01, which increased.

- Although the benzene concentration (1.9 parts per billion [ppb]) at TW-01 had increased, it was only slightly greater than the NYSDEC Groundwater Quality Standard (1.0 ppb). No other COCs exceeded their NYSDEC Groundwater Quality Standard at TW-01 during this reporting period. There are decreasing trends in the benzene and N,N-dimethylaniline concentrations at this location.

- Benzene, ethylbenzene, xylene and N,N-dimethylaniline at MW-9S were detected above their respective NYSDEC Groundwater Quality Standards in March 2009; however, these concentrations are consistent with those detected during prior sampling events conducted as part of the aerobic bioremediation program. Overall

benzene and N,N-dimethylaniline concentrations detected at this location are trending downward.

- Benzene and N,N-dimethylaniline concentrations at MW-31 were detected above their respective NYSDEC Groundwater Quality Standards this reporting period; however, they are consistent with concentrations detected during prior sampling events conducted as part of the aerobic bioremediation program. Overall benzene and N,N-dimethylaniline concentrations detected at this location are trending downward.

- Benzene and N,N-dimethylaniline concentrations at MW-33 were detected above their respective NYSDEC Groundwater Quality Standards this reporting period; however, the concentrations are consistent with previous detections at MW-33. The results of the Mann-Kendall Test for Trends show a decreasing trend in N,N-dimethylaniline concentrations at MW-33, as well as a decreasing trend in benzene concentrations since 2006. The aniline concentrations detected at MW-33 have remained below the NYSDEC Groundwater Quality Standard (5 ppb) for the last four sampling events. At the beginning of the aerobic bioremediation project in 2006, aniline was detected at 940 ppm and has not been detected at MW-33 since March 2008.

- All COCs concentrations at MW-32 continue to be below NYSDEC Groundwater Quality Standards.

- During this reporting period, weekly DO levels were measured at MW-33 from January 9 to June 29, 2009 and are summarized in Table 4. The DO levels ranged from 0.28 to 1.18 ppm. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Overall DO levels measured in Area 1 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 March and June 2009 at Area 2 monitoring wells were approximately equal to or below concentrations detected during the August 2008 sampling event. (Table 3 and Figure 5). The aniline concentration detected in the groundwater sample collected from TW-02RR were both lower than the August 2008 concentration. The aniline concentrations at MW-34 and MW-36 exceeded the NYSDEC Groundwater Quality Standard during this reporting period; however, these concentrations are consistent with recent prior detections.

- The aniline concentrations detected in the groundwater samples collected at TW-02RR were lower during this reporting period (2,000 ppb in March 2009 and 2,800 ppb in June 2009) than the concentration detected during the previous sampling period (9,600 ppb in August 2008). These concentrations of aniline are lower than previously detected at this well. Benzene was the only other COC detected above the NYSDEC Groundwater Quality Standard in the groundwater samples collected at this location during the March 2009 sampling event. The March 2009 benzene concentration is consistent with previous detections at TW-02RR. The xylene concentration (4.2 ppb) at TW-02RR dropped below the NYSDEC Groundwater Quality Standard (5 ppb) this reporting period; this is the second result (non-detect in October 2003) below standard since initiating the in-situ bioremediation treatment system in 1998. Overall the acetone, aniline, benzene and xylene concentrations detected at this location are trending downward.

- The aniline concentration detected at MW-34 (12 ppb) exceeded the NYSDEC Groundwater Quality Standard (5 ppb); however, this is consistent with historical concentrations detected at this location. No other COCs, except N,N-dimethylaniline (2.0 ppb) and benzene (1.4 ppb), were detected at concentrations slightly greater than their respective NYSDEC Groundwater Quality Standard in the March 2009 sampling event at this location. Overall the aniline, benzene and N,N-dimethylaniline concentrations detected at this location are trending downward.

- The aniline concentrations detected at the samples collected at MW-36 during the March and June 2009 sampling events (150 ppb and 460 ppb) exceeded the NYSDEC Groundwater Quality Standard (5 ppb) this reporting period; however, these concentrations are consistent with historical detections at this well. Prior to March 2009, the aniline concentrations had continuously decreased for the previous five sampling events (from 1,300 ppb in June 2007 to 4.5 ppb in August 2008). Benzene (2.4 ppb) and N,N-dimethylaniline (2.8 ppb) were detected at concentrations slightly greater than their respective NYSDEC Groundwater Quality Standard in the March 2009 sampling event at this location. However, N,N-dimethylaniline was below the standard in June 2009. The concentrations of benzene, N,N-dimethlyaniline and xylene detected at MW-36 are trending downward.

- All COC concentrations detected at MW-35 continue to be below NYSDEC Groundwater Quality Standards.

- Weekly DO levels were measured in Area 2 (MW-36 and TW-02RR) from January 9 to June 29 2009 and are summarized in Table 4. The DO levels ranged from 0.38 to 1.28 ppm at MW-36 and 0.31 to 2.34 ppm at TW-02RR. Aerobic conditions

in groundwater are generally indicated when DO levels are greater than 2 ppm, as shown in Table 4 only one DO level measured this reporting period in Area 2 was greater than 2 ppm (March 20, 2009). Although DO levels exceeded 2 ppm it is not apparent that continuous aerobic conditions were achieved. Overall DO levels are trending upward at MW-36, but trending downward at TW-02RR.

Area 3

- COC concentrations detected in groundwater samples collected from Area 3 monitoring wells during the March and June 2009 sampling events were generally consistent with or lower than the concentrations detected in the previous sampling event conducted in August 2008, with the exception of the benzene, toluene, ethylbenzene, xylene, collectively known as BTEX, and aniline concentrations detected at MW-27 and aniline at MW-28 (Table 3 and Figure 6).

- 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 6). The aniline concentration detected at MW-8SR (2,200 ppb) in March 2009 is the lowest concentration detected since initiating the aerobic bioremediation treatment program in August 2006 and is the second lowest concentration of aniline detected at that location since commencing the in-situ bioremediation treatment activities in 1998 (1,200 ppb in September 1998). Although, the aniline concentration increased to 7,000 ppb in June 2009 at MW-8SR it was still relatively low in comparison to previous aniline detections at this location. The aniline concentrations detected at MW-8SR have been trending downward since 2002. All other COC concentrations exceeding their respective NYSDEC Groundwater Quality Standard in the groundwater sample collected from MW-8SR in March 2009 (i.e., BTEX) are gradually trending downward.

- The aniline concentrations detected at MW-27 during this reporting period (8,200 ppb in March 2009 and 7,400 ppb in June 2009) were higher than the concentration detected during the previous reporting period (2,400 ppb in August 2008). The other COCs detected in the groundwater sample collected from MW-27 in March 2009 (i.e., BTEX) were all higher than the respective concentrations detected in August 2008 and exceeded their respective NYSDEC Groundwater Quality Standard; however, these concentrations are consistent with concentrations detected during prior sampling events as part of the aerobic bioremediation program.

- Monitoring well MW-28 historically exhibited relatively higher concentrations of methylene chloride and aniline. The aniline concentration detected at MW-28 (18

ppb) exceeded the NYSDEC Groundwater Quality Standard (5 ppb) during this reporting period; this concentration of aniline is consistent with prior detections. Methylene chloride concentrations continue to be below detection limits in groundwater samples collected from MW-28, which is consistent with samples collected since the October 2003 sampling event..Benzene concentrations were detected at 3.5 ppb, just slightly greater than its NYSDEC Groundwater Quality Standard of 1 ppb. No other COCs were detected above their respective Groundwater Quality Standard in groundwater samples collected from MW-28. Overall benzene, ethylbenzene and aniline concentrations detected at this location are trending downward.

- The aniline concentration at MW-30 declined from 31 ppb in August 2008 to non-detect this reporting period. No COCs were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standard at MW-30.

- Weekly DO levels were measured at MW-8SR, MW-27 and MW-28 from January 9 to June 29, 2009 and are summarized in Table 4. The DO levels at MW-8SR ranged from 0.44 to 2.34 ppm. The DO levels at MW-27 ranged from 0.34 to 1.67 ppm. The DO levels at MW-28 ranged from 0.44 to 3.30 ppm. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm, as shown in Table 4 four DO levels measured this reporting period in Area 3 were greater than 2 ppm. Although DO levels exceeded 2 ppm it is not apparent that continuous aerobic conditions were achieved. Overall DO levels are trending upward at MW-27 and MW-28, but trending downward at MW-8SR.

Downgradient Perimeter Monitoring Locations

Sampling revealed only one detection above the NYSDEC Groundwater Quality Standard at the downgradient perimeter monitoring locations (Table 2) during the March 2009 sampling event (Table 3 and Figure 6). Benzene (2.3 ppb) was detected at MW-17R.

IV. 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.

- COCs were not detected above the NYSDEC Groundwater Quality Standards at the perimeter sampling location in March 2009, except for benzene at MW-17R. This is the second benzene detection at MW-17R in approximately six months; however the concentration was only slightly greater than the NYSDEC Groundwater Quality Standard. Benzene has not been detected at any downgradient perimeter wells between MW-17R and the barge canal. These results indicate that the groundwater in Area 3 is contained in the Area 3 treatment system and is not flowing downgradient of Area 3. 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 March 2009, the COCs in this area were mostly non-detect or below the NYSDEC Groundwater Quality Standard of 1 ppb, including aniline in groundwater at MW-33. 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 March 2009 sampling event. Aniline concentrations previously detected in MW-33 have remained below the NYSDEC Groundwater Quality Standard for the last four sampling events 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; however, the DO levels appear to be increasing.

- Overall, the COC groundwater concentrations within Area 2 have decreased over the last seven sampling events since June 2006. The concentrations continue to be relatively low, including aniline detected at monitoring location TW-02RR in March and June 2009; these are the lowest concentrations of aniline detected at this well since commencing the in-situ bioremediation treatment activities in 1998.

The aniline concentrations detected at MW-36 have decreased since June 2007 and remain low. In addition, aniline and N,N-dimethylaniline concentrations remain relatively low at MW-34. Overall the results indicate that the in-situ aerobic bioremediation treatment program is facilitating the reduction of aniline in Area 2. In addition, the continuous supply of oxygen to the groundwater appears to have reduced the severe fluctuations in the COC concentrations previously observed. Based on the DO levels measured in Area 2 aerobic conditions were achieved, but not sustained. However, the DO levels measured in Area 2 appear to be gradually increasing. The aniline and DO concentrations suggest that the oxygen is being utilized for the biodegradation processes soon after it is introduced to groundwater, resulting in little surplus of oxygen to increase the groundwater DO levels.

- Since initiating the in-situ bioremediation treatment activities in 1998, the concentrations of most COCs detected at Area 3 monitoring locations have decreased or remained relatively constant. In particular, the aniline concentration at MW-8SR has decreased approximately 90 percent between the end of the anaerobic bioremediation treatment program in June 2006 and the March and June 2009 sampling events. The March 2009 concentration is the lowest concentration detected since initiating the aerobic bioremediation program in August 2006. The aniline concentration declined to non-detect levels at MW-30 this reporting period. These results indicate that the in-situ aerobic bioremediation treatment program is facilitating the reduction of aniline in Area 3. In addition, the continuous supply of oxygen to the groundwater appears to have reduced the severity of fluctuations in the 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 an order of magnitude.

- Based on the DO levels measured in Area 3 it appears that aerobic conditions were achieved. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm, as shown in Table 4 four DO levels measured this reporting period were greater than 2 ppm; however, aerobic conditions were not sustained. The aniline concentrations within Area 3 (i.e., MW-8SR, MW-27 and MW-28) have decreased overall between June 2006 and June 2009 suggesting that the in-situ aerobic bioremediation treatment program facilitated the reduction of aniline. The aniline and DO concentrations suggest that the oxygen is being utilized for the biodegradation processes soon after it is introduced to groundwater, resulting in little surplus of oxygen to increase the groundwater DO levels.

V. Recommendations

The in-situ aerobic bioremediation program generally has reduced the aniline and other COC concentrations at the Site, and it is recommended 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, which indicates that monthly dilute hydrogen peroxide amendments provide adequate oxygen for the continuation of aerobic degradation of aniline in Area 1 and, therefore, should be continued.

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). Therefore, it is recommended that the oxygen infusion system installed in Areas 2 and 3 and the oxygen diffuser in the Area 3 EQ tank continue to be maintained. It is anticipated that the constant source of oxygen may result in less fluctuation of the aniline concentrations and a faster treatment time than was observed with the dilute hydrogen peroxide amendments. Further recommendations will be made based on the results of the next biannual sampling event and DO level readings.

Although the NYSDEC-approved Remedial Design/Remedial Action Work Plan for OU2 (BBL 1997) identified that the groundwater extraction, amendment and infiltration program implemented in Area 3 does not require a State Pollutant Discharge Elimination System permit because the groundwater is infiltrated into the shallow hydrogeologic unit under a controlled manner that mitigates the potential for migration beyond the impacted area, Mr. Rider (NYSDEC) requested in a December 31, 2008 letter to Mr. Ulm (ARCADIS) that the USEPA's injection well requirements for the oxygen infusion system be reviewed to make sure that the Site is in compliance with those requirements. Mr. Rider advised Mr. Ulm that the Division of Water Technical and Operation Guidance Series 2.1.2 *Underground Injection/Recirculation at Groundwater Remediation Sites* dated July 27, 1990 does not include the requirement to notify the United States Environmental Protection Agency (USEPA) when constructing, operating and decommissioning Class V injection wells. ARCADIS prepared an Inventory of Injection Wells Form 7520-16 on April 29, 2009 and submitted the form in a May 1, 2009 letter to Mr. Rodriguez-Ortiz (USEPA), along with a summary of injections, a summary of groundwater analytical data since beginning the aerobic bioremediation program, and a site plan for review. Class V permits are generally approved by rule; ARCADIS has not received comments from the USEPA.

The Biannual Groundwater Monitoring Program activities will continue at the Site (Table 3). The second biannual sampling event of 2009 is tentatively scheduled to be

conducted during the week of September 14, 2009. In addition, it is recommended that DO levels continue to be measured in the field at MW-33 in Area 1, MW-36 and TW-02RR in Area 2, and MW-27, MW-28 and MW-8SR in Area 3 at a reduced frequency of once per month starting in September 2009.

The in-situ aerobic biodegradation treatment activities will continue to be conducted in accordance with the 1999 site-specific Health and Safety Plan prepared by BBL.

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 the 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 23rd 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.

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

Sincerely,

ARCADIS

David J. Ulm
Senior Vice President

DEP/cmb
Attachments

Copies:
Mr. Gerald Rider, NYSDEC (w/out Attachment B)
Mr. Gregg Townsend, NYSDEC (w/out Attachment B)
Mr. Jim Burke, P.E., 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. Christopher Young, P.G., de maximis, inc. (w/out Attachment B)

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Tables

Table 1. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through June 2009, 2009 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
Canal	393.39	364.29	362.99	362.06	364.34	363.21	363.54
Collection Sump	372.81	363.18	362.26	361.86	363.81	362.14	362.20
MW-3S	376.54	369.08	--	367.60	367.93	365.19	367.32
MW-3D	375.56	366.90	365.52	365.24	366.62	365.11	366.21
MW-6D	377.07	367.07	365.72	365.44	366.83	365.31	366.44
MW-9D	376.76*	366.91	365.83	365.56	366.87	365.35	366.48
MW-11D	373.68	366.53	--	364.92	366.32	364.85	365.91
MW-11S	373.50	366.11	364.27	363.88	365.69	363.86	364.88
MW-18	372.57	363.82	362.63	362.32	363.51	362.26	363.16
MW-19	376.00	364.09	362.93	362.61	363.84	362.43	363.42
MW-23I	372.77	366.43	365.02	364.74	366.12	364.64	365.69
MW-23S	372.61	365.28	362.98	362.56	364.81	362.62	363.50
MW-24DR	375.14	366.59	365.28	364.90	366.31	364.81	365.82
MW-24SR	375.55	366.49	365.21	364.83	366.26	364.73	365.81
MW-25D	373.67	366.64	365.30	364.95	366.35	364.85	365.88
MW-25S	373.39	365.26	363.32	362.87	364.84	362.88	363.97
PZ-4D	376.11	366.64	365.29	364.98	366.39	364.90	365.96
PZ-5D	375.58	366.87	365.49	365.19	366.69	365.09	366.21
PZ-9D	377.29	366.91	365.26	366.09	366.68	365.18	366.31
PZ-A	373.94	365.62	363.11	362.72	364.83	362.96	363.56
PZ-B	373.92	365.85	363.12	362.62	365.03	362.87	363.64
PZ-C	374.85	367.14	365.85	365.30	367.15	365.16	366.71
PZ-D	375.12	367.68	365.98	365.40	367.29	365.28	366.81
PZ-E	374.12	368.13	365.16	364.07	366.58	364.14	366.82
PZ-F	377.06	368.32	366.18	365.76	367.99	365.50	367.41
PZ-G	377.16	368.64	366.28	365.82	368.14	365.94	367.29
PZ-HR	376.99	368.31	366.23	365.74	368.00	365.48	367.41
PZ-I	375.15	369.00	366.49	365.92	368.55	365.50	367.97
PZ-J	374.89	367.96	366.16	365.82	367.69	365.55	367.20
PZ-K	373.19	365.58	363.36	362.91	364.96	363.08	363.80
PZ-L	374.62	365.23	362.94	362.63	364.64	362.79	363.39
PZ-M	374.35	365.60	363.54	363.11	365.13	363.30	364.00
PZ-N	376.94**	367.51	365.76	365.26	367.05	365.09	366.63
PZ-O	375.36	365.42	363.22	362.82	365.01	362.91	363.94
PZ-P	376.89	368.30	366.31	365.83	368.06	365.58	367.51
PZ-Q	377.61	368.61	366.33	365.83	368.23	365.57	367.61
PZ-R	377.05	368.51	366.19	365.79	368.20	365.55	367.57
PZ-S	378.13	372.48	366.51	365.81	368.21	365.55	367.60
PZ-T	376.25	368.04	366.24	365.84	367.89	365.52	367.37
PZ-U	375.35	367.99	366.07	365.80	367.75	365.52	367.25
PZ-V	375.78	367.97	366.17	365.78	367.78	365.48	367.24
PZ-W	375.78	367.79	366.01	365.69	367.59	365.46	367.10

Notes:

1. AMSL = above mean sea level (NGVD of 1929)
2. * = Monitoring well MW-9D inner PVC pipe was reduced (cut) by 1½ inches on 9/19/01. The reference elevation prior to 9/19/01 was 376.88 feet AMSL. The new reference elevation for MW-9D is 376.76 feet AMSL.
3. ** = The reference elevation for PZ-N was 376.02 feet AMSL prior to 11/16/00. The new reference elevation is 376.94 feet AMSL.
4. - - = No groundwater level measurement was obtained.

Table 2. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Location	Annual Sampling Schedule	
	First Sampling Event	Second Sampling Event
Upgradient		
MW-1	C	C
MW-3S	C	C
MW-3D	H	H
Area 1		
TW-01	C	C
MW-6D	H	H
MW-9S	C	C
MW-9D	H	H
MW-31	C	C
MW-32	C	C
MW-33	C	C
PZ-F	H	H
PZ-G	H	H
PZ-HR	H	H
PZ-P	H	H
PZ-Q	H	H
PZ-R	H	H
PZ-S	H	H
Area 2		
TW-02RR	C	C
PZ-9D	H	H
MW-34	C	C
MW-35	C	C
MW-36	C	C
PZ-I	H	H
PZ-J	H	H
PZ-T	H	H
PZ-U	H	H
PZ-V	H	H
PZ-W	H	H
Area 3		
MW-8SR	C	C
MW-27	C	C
MW-28	C	C
MW-29	C	C
MW-30	C	C
PZ-A	H	H
PZ-B	H	H

See notes on page 2.

Table 2. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule, 2008 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Location	Annual Sampling Schedule	
	First Sampling Event	Second Sampling Event
Area 3 (Cont'd.)		
PZ-C	H	H
PZ-D	H	H
PZ-E	H	H
PZ-K	H	H
PZ-L	H	H
PZ-M	H	H
PZ-N	H	H
PZ-O	H	H
MW-11S	H	H
MW-11D	H	H
Downgradient Perimeter Monitoring Locations		
MW-17R	C	C
MW-18	C, H	C, H
MW-19	C, H	C, H
MW-23I	C, H	C, H
MW-23S	C, H	C, H
MW-24SR	H	C, H
MW-24DR	H	C, H
MW-25S	C, H	C, H
MW-25D	C, H	H
PZ-4S	C	NM
PZ-4D	C, H	H
PZ-5S	NM	C
PZ-5D	H	C, H

Notes:

1. H = Hydraulic monitoring (groundwater level measurements).
2. C = Monitoring for chemicals of concern (COCs).
3. NM = Not monitored.
4. The hydraulic monitoring identified in this table will be conducted on a semi-annual basis. The hydraulic monitoring also includes measuring the conductivity of groundwater recovered from Area 3 from a sampling port located before the equalization tank.
5. Field groundwater parameters including pH, temperature, conductivity, dissolved oxygen and oxidation/reduction potential are measured during each COC sampling event.
6. Each of the monitoring wells and piezometers used for hydraulic and COC monitoring during the semi-annual monitoring event are checked for the presence (if any) of non-aqueous phase liquid.
7. Based on the results obtained, the scope and/or the frequency for the hydraulic and/or COC components of the long-term process control monitoring program, as detailed herein, may be modified. Any modifications would be made in consultation with the New York State Department of Environmental Conservation (NYSDEC).
8. This table is based on the NYSDEC-approved Operation and Maintenance Plan (Blasland, Bouck & Lee, Revised August 1999), including the NYSDEC-approved December 29, 1999 Addendum with the modifications detailed in the October 2004 Biannual Process Control Monitoring Report.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through June 2009, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-1	11/06	370.3	355.3	<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0	<3.0
	6/07			<5	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			7.4	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<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
MW-8SR[B]	9/06	362.7	352.7	NS	NS	NS	NS	NS	NS	NS	62,000 [61,000]	<520 [<520]	NS
	11/06			28	16	100	64	276	<500	<1.0	28,000	<200	<3.0
	6/07			58	14	110	83	250	<500	<2.0	3,700	<22	<6.0
	8/07			NS	NS	NS	NS	NS	NS	NS	17,000	<100	NS
	11/07			<5.0 J	12	22	33	210	<500	<1.0	22,000 J	<100 J	<3.0
	3/08			<10 [9.6 J]	5.5 [5.7]	22 [22]	70 [68]	180 [180]	<500 [<500]	<2.0 [<2.0]	5,800 [5,200]	<25 [<50]	<6.0 [<6.0]
	8/08			8.2 J [<10]	11 [11]	34 [33]	70 [70]	180 [180]	<500 [<500]	<2.0 [<2.0]	31,000 [25,000]	<250 [<250]	<6.0 [<6.0]
	3/09			6.5 J [5.8 J]	5.8 [5.8]	10 [10]	66 [63]	140 [140]	<500 [<500]	<1.0 [<1.0]	2,200 [1,800]	<12 [<12]	<1.0 [<1.0]
	6/09			NS	NS	NS	NS	NS	NS	NS	7,000	<50	NS
MW-9[C]	11/06	365.8	356	<5.0	1.4	3.6 J	23	61	<500	<1.0	0.5 J	3.3 J	<3.0
(Replaced by MW-9S)	6/07			<5.0	1.4	3.3 J	42	110	<500	<1.0	<5.0	4.1	<3.0
	11/07			<5.0	0.9 J	2.0 J	41	58	<500 J	<1.0	1.7 J	6.8	<3.0
	3/08			<5.0 J	1.1	3.0 J	37	71	<500	1.2	0.7 J	6.8	<3.0
	8/08			24	3.7	3.3 J	21	72	<500	<1.0	<5.5	6.1	<3.0
	3/09			<10	1.2	2.5	27	69	<500	<1.0	<5.0	4.2	<1.0
MW-17[C]	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
(Replaced by MW-17R)	6/07			<5.0	0.7 J	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			2.3 J	1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/09			<10	2.4	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
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			6.8	<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
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
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
	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

See notes on page 4

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through June 2009, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
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
MW-24S[D]	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
(Replaced by MW-24SR)	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
MW-24D[D]	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
(Replaced by MW-24DR)	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
MW-25S	11/06	361.2	356.2	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	<1	<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
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
	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
MW-27	9/06	362.5	354.5	NS	NS	NS	NS	NS	NS	NS	3,700	<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	9.8	14	24	<500	<1.0	1,100 J	<10	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	<10 J (4,200 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 (3,900 J)	<25 J (<25 J)	<3.0 (<3.0)
	3/08			21	9.4 (9.6)	23	43	68	<500	<2.0	12,000	<100	<6.0
	8/08			3.8 J	<2.5	2.2 J	1.8 J	10	<500	<1.0	2,400	<25	<3.0
	3/09			14 J	8.7	9.4	36	85	<500	<1.0	9,200 J	<50 J	<1.0
	6/09			NS	NS	NS	NS	NS	NS	NS	7,400	<50	NS
MW-28	9/06	363.6	355.6	NS	NS	NS	NS	NS	NS	NS	280	<2.2	NS
	11/06			12	8.2	1.4 J	6.6	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	28 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	3.8	0.3 J	0.8 J	1.1 J	851	<1.0	16	<0.5	<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	<5.5	<1.1	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0 J	<0.5 J	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
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	48	<0.5	<3.0
	3/08			<5.0	0.8 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

See notes on page 4

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through June 2009, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
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	0.6 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	2.8	<5.0	<4.0	<5.0	<500	<1.0	0.2 J	1.9	<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
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
MW-33	9/06	344 1	356.1	NS	NS	NS	NS	NS	NS	NS	940	8.0	NS
	11/06			17 J	6.6	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	2.5	<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	2.6	<3.0
	3/09			<10	3.2	<1 0	<1 0	<3.0	<500	<1 0	<5.0	2.4	<1 0
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	1.5	<3.0
	3/09			14	1.4	0.7 J	<1 0	1.5 J	<500	<1 0	12	2.0	<1 0
MW-35	11/06	363	355	R	<1.0	<5 0	<4 0	<5.0	<500	<1 0	1.1	<1.0 J	<3 0
	6/07			13	<1.0	<5 0	<4 0	<5.0	<500	<1 0	<5.0	<1.0	<3 0
	11/07			<5.0	<1 0	<5 0	<4.0	<5.0	<500 J	<1 0	<5.0	<0.5	<3 0
	3/08			<5.0 J	<1.0	<5 0	<4.0	<5.0	<500	<1 0	<5.0	<0.5	<3 0
	8/08			6.4	<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
MW-36	9/06	363.6	355.6	NS	NS	NS	NS	NS	NS	NS	3.5	1.2	NS
	11/06			130 J	3.4	1.2 J	<4.0	1.1 J	<500	<1 0	420	1.7 J	<3.0
	6/07			33	4.6	1.4 J	0.8 J	5.0	<500	<1 0	1,300	<10	<3.0
	8/07			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
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

See notes on page 4

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, September 2006 through June 2009, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
TW-02RR[B]	9/06	363.3	353.3	NS	NS	NS	NS	NS	NS	NS	[illegible]	<52	NS
	11/06			78 J	4.8	1.4 J	2.2 J	6.2	<500	<1.0	[illegible]	<10 J	<3.0
	6/07			17	5.5	1.3 J	4.0	8.8	<500	<1.0	[illegible]	<100	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	[illegible]	<20	NS
	11/07			5.5	5.5	1.2 J	3.0 J	7.4	<500 J	<1.0	[illegible]	<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]	7,600 [5,400]	<50 [<50]	<3.0 [<3.0]
	8/08			9 [9.6]	4.4 [4.4]	1.0 J [1.1 J]	2.3 J [2.4 J]	5.7 [7.0]	<500 [<500]	<1.0 [<1.0]	6,600 [7,000]	<71 [<58]	<3.0 [<3.0]
	3/09			<10 [<10]	6.0 [4.8]	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	[illegible]	<20	NS
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
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
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
PZ-5S	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

See notes on page 4

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 Duplicate sample results are presented in brackets (e.g., [14])
5 Replacement wells for MW-8 and MW-9 were installed 8/95.
6. Replacement wells for MW-17, MW-24S, MW-24D and TW-02 were installed 11/97 - 12/97
7. The sampling events in 9/06 and 8/07 were interim sampling events to gauge the effects of the in-situ aerobic biodegredation treatment activities.
8 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

Superscript Notes:

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

Abbreviations:

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

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 Weekly Dissolved Oxygen Measurements, Aerobic Bioremediation Treatment Program, August 20(through June 2009, 2009 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

See notes on page 3.

Table 4. Summary of Weekly Dissolved Oxygen Measurements, Aerobic Bioremediation Treatment Program, August 20(through June 2009, 2009 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)
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
1/4/08	0.46	0.39	N/R	0.77	0.89	N/R
1/11/08	0.48	0.36	N/R	0.64	0.91	N/R
1/18/08	0.45	0.44	N/R	0.74	1.02	N/R
1/25/08	0.42	0.33	N/R	0.96	0.92	N/R
2/1/08	0.43	0.38	N/R	0.89	1.00	N/R
2/8/08	0.42	0.61	N/R	0.63	0.77	N/R
2/15/08	0.46	0.54	N/R	0.86	0.99	N/R
2/22/08	0.53	0.51	N/R	0.84	0.71	N/R
2/29/08	0.44	0.45	N/R	0.73	0.92	N/R
3/7/08	0.61	0.45	N/R	0.74	1.01	N/R
3/14/08	0.65	0.34	N/R	0.77	0.82	N/R
3/21/08	0.65	0.46	N/R	0.63	0.81	N/R
3/28/08	0.62	0.33	N/R	0.71	0.87	N/R
4/4/08	0.66	0.44	N/R	0.68	0.98	N/R
4/9/08	0.77	0.35	N/R	0.54	0.79	N/R
4/20/08	0.68	0.41	N/R	0.64	0.77	N/R
4/25/08	0.48	0.61	N/R	0.43	0.76	N/R
5/2/08	0.44	0.48	N/R	0.66	0.79	N/R
5/9/08	0.46	0.41	N/R	0.67	0.81	N/R
5/16/08	0.49	0.44	N/R	0.79	0.97	N/R
5/22/08	0.38	0.40	N/R	0.43	0.59	N/R
5/30/08	0.44	0.34	N/R	0.72	0.55	N/R
6/6/08	0.31	0.33	N/R	0.40	0.67	N/R
6/13/08	0.38	0.37	N/R	0.48	0.58	N/R
6/20/08	0.41	0.70	N/R	0.40	0.58	N/R
6/27/08	0.68	0.90	N/R	0.69	1.02	N/R
7/2/08	0.97	0.88	N/R	1.03	1.18	N/R
7/10/08	1.07	0.86	N/R	1.24	1.40	N/R
7/18/08	2.06	1.89	N/R	2.03	2.31	N/R
7/23/08	1.94	1.75	N/R	1.98	2.42	N/R
8/1/08	1.29	1.12	N/R	1.27	1.48	N/R
8/8/08	1.21	1.38	N/R	1.43	1.71	N/R
8/15/08	1.29	1.53	N/R	1.68	1.94	N/R
8/22/08	1.06	1.05	N/R	1.07	1.40	N/R
8/29/08	1.18	0.98	N/R	1.04	1.32	N/R
9/5/08	0.90	0.78	N/R	1.02	1.17	N/R
9/12/08	0.85	0.83	N/R	0.87	1.00	N/R
9/19/08	0.91	1.03	N/R	0.97	1.07	N/R
9/25/08	0.74	0.68	N/R	0.74	0.96	N/R
10/3/08	0.77	0.54	N/R	0.81	0.92	N/R
10/10/08	0.71	0.58	N/R	0.77	1.03	N/R
10/17/08	0.69	0.62	N/R	0.70	0.98	N/R

See notes on page 3.

Table 4. Summary of Weekly Dissolved Oxygen Measurements, Aerobic Bioremediation Treatment Program, August 20(through June 2009, 2009 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)
10/23/08	0.66	0.89	N/R	0.91	0.71	N/R
10/31/08	0.47	0.50	N/R	0.62	0.68	N/R
11/7/08	0.42	0.58	0.43	0.53	0.53	0.60
11/14/08	0.55	0.66	1.15	0.74	0.63	0.70
11/21/08	0.90	0.81	0.90	1.02	1.20	1.02
11/25/08	0.90	0.78	0.88	0.80	1.12	0.88
12/4/08	0.74	0.78	0.76	0.94	1.02	0.92
12/12/08	0.77	0.79	0.79	0.96	1.09	0.88
12/18/08	0.80	0.83	0.80	0.84	1.03	0.86
12/22/08	0.78	0.82	0.79	0.91	1.09	0.87
12/29/08	0.83	0.80	0.86	0.84	0.98	0.93
1/9/09	1.01	0.97	0.96	1.00	1.33	1.02
1/13/09	1.12	0.96	0.94	0.98	1.28	1.01
1/23/09	1.18	0.85	0.96	1.04	1.35	1.00
1/30/09	1.16	0.88	0.91	0.99	1.19	0.98
2/6/09	1.07	1.28	1.30	1.67	3.30	2.34
2/13/09	1.08	1.03	0.97	1.07	2.04	1.23
2/20/09	1.08	1.10	0.96	1.34	2.38	1.29
2/26/09	0.80	0.97	0.86	1.20	1.44	1.12
3/6/09	0.73	0.96	0.93	0.97	1.20	1.01
3/13/09	0.81	1.26	1.05	1.16	1.68	1.16
3/20/09	0.83	1.00	2.34	1.05	1.32	1.10
3/27/09	0.50	0.56	0.55	0.80	0.95	0.76
4/2/09	0.55	0.55	0.94	0.53	0.82	0.60
4/7/09	0.68	0.71	0.87	0.77	0.91	0.78
4/19/09	0.77	0.68	0.93	0.81	0.98	0.77
4/24/09	0.43	0.48	0.39	0.60	0.73	0.74
5/1/09	0.43	0.46	0.43	0.81	0.87	1.02
5/8/09	0.40	0.54	0.43	0.58	1.03	0.55
5/15/09	0.41	0.38	0.34	0.60	0.88	0.51
5/22/09	0.43	0.44	0.40	0.53	0.70	0.65
5/29/09	0.41	0.46	0.38	0.58	0.81	0.55
6/5/09	0.38	0.58	0.62	0.34	0.60	0.48
6/12/09	0.28	0.40	0.31	0.60	0.44	0.44
6/26/09	0.34	0.43	0.34	0.52	0.45	0.42
6/29/09	0.33	0.42	0.57	0.50	0.83	0.60

Notes:

1. No readings were taken at MW-36 between 8/21/2006 and 6/1/2007.
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.

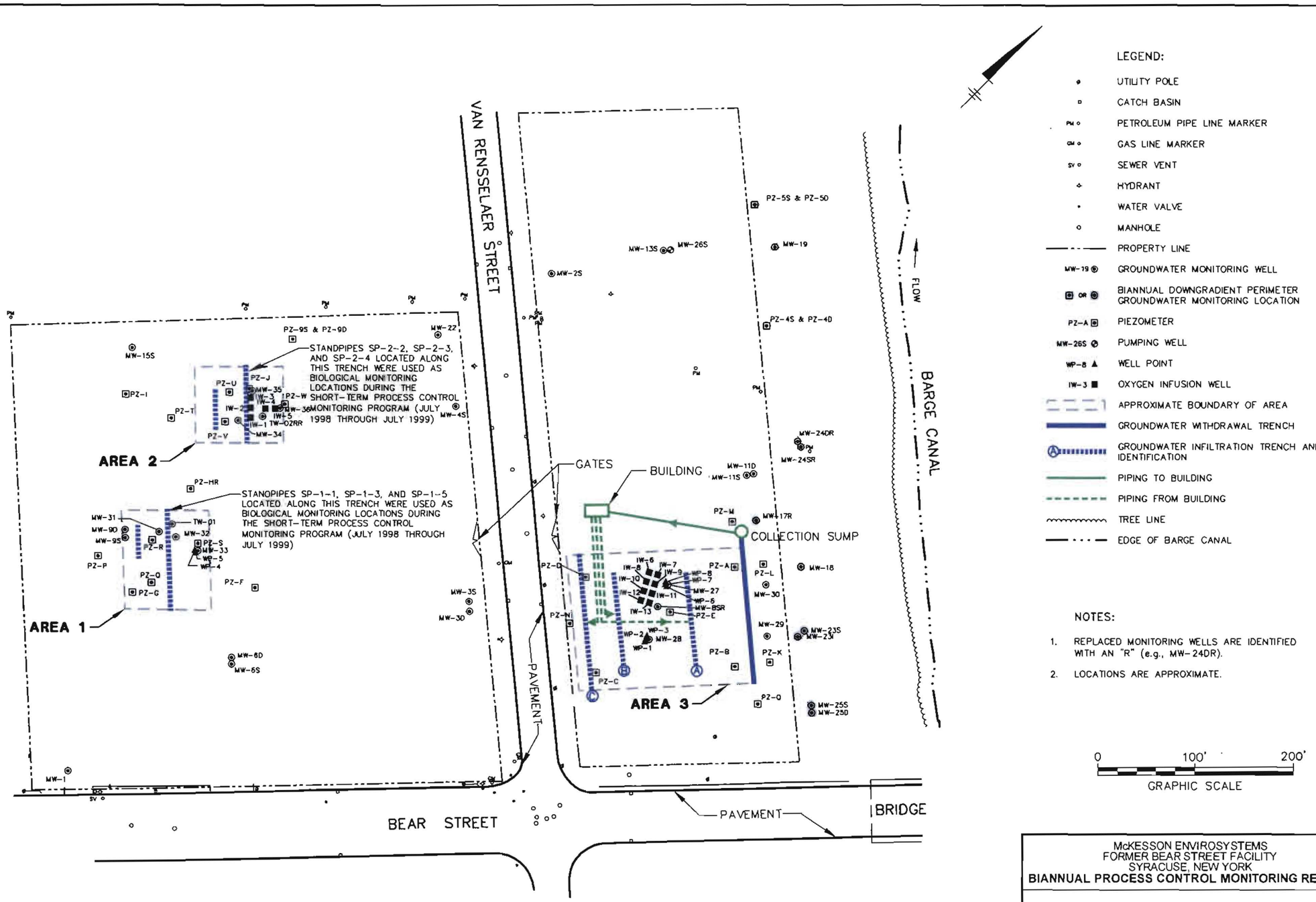
DO = Dissolved oxygen.

N/R = no reading was taken.

ppm = parts per million

ARCADIS

Figures



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 DOWNGRADIENT 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
- A — 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.

0 100' 200'

GRAPHIC SCALE

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

SITE PLAN

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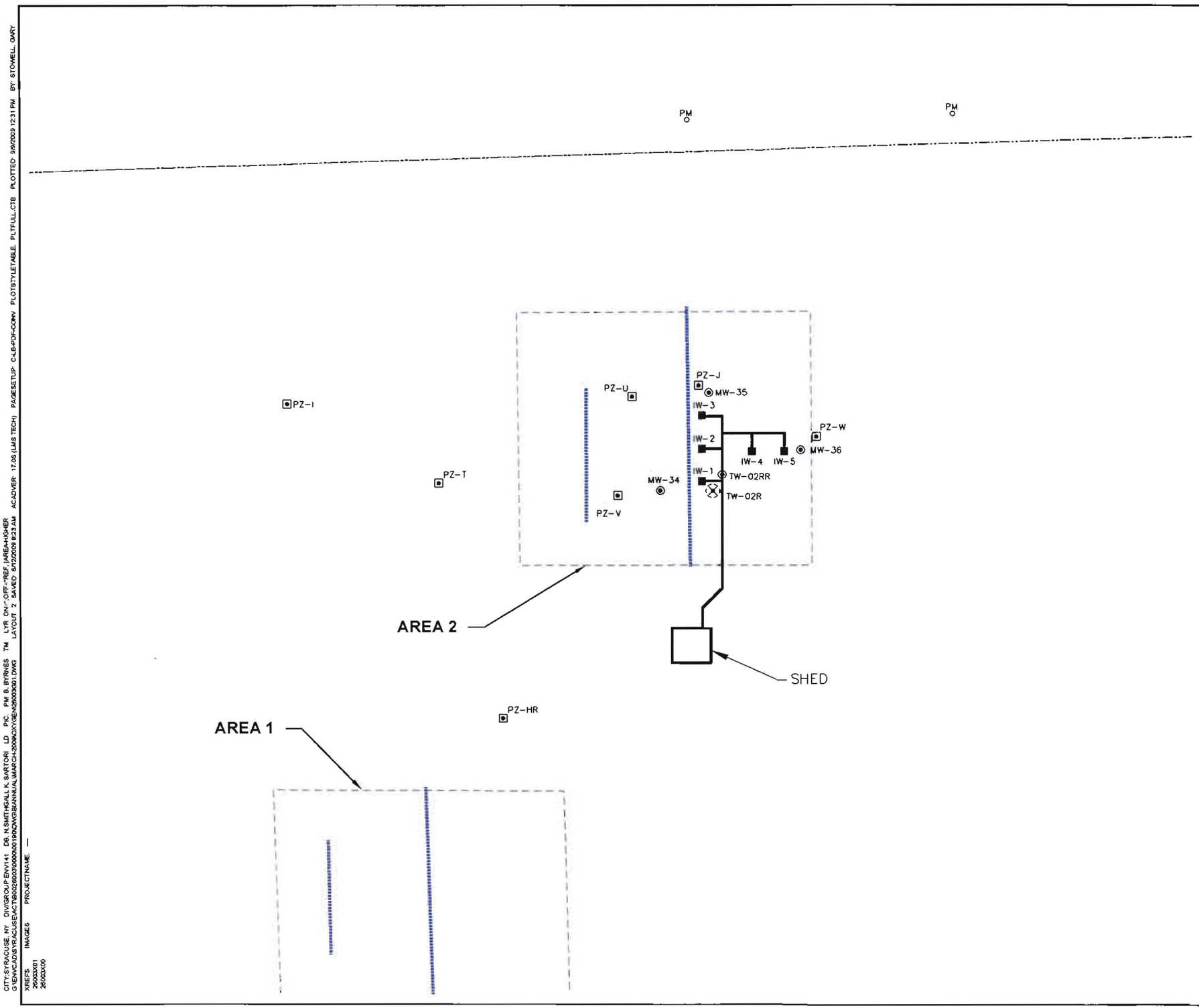
FIGURE 1



LEGEND:

- PROPERTY LINE
- PM — PETROLUEM PIPE LINE MARKER
- MW-19 — GROUNDWATER MONITORING WELL
- PZ-A — PIEZOMETER
- TW-02R — REMOVED GROUNDWATER MONITORING WELL
- 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.

0 30' 60'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
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SYRACUSE, NEW YORK
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OXYGEN INFUSION SYSTEM LAYOUT AREA 2

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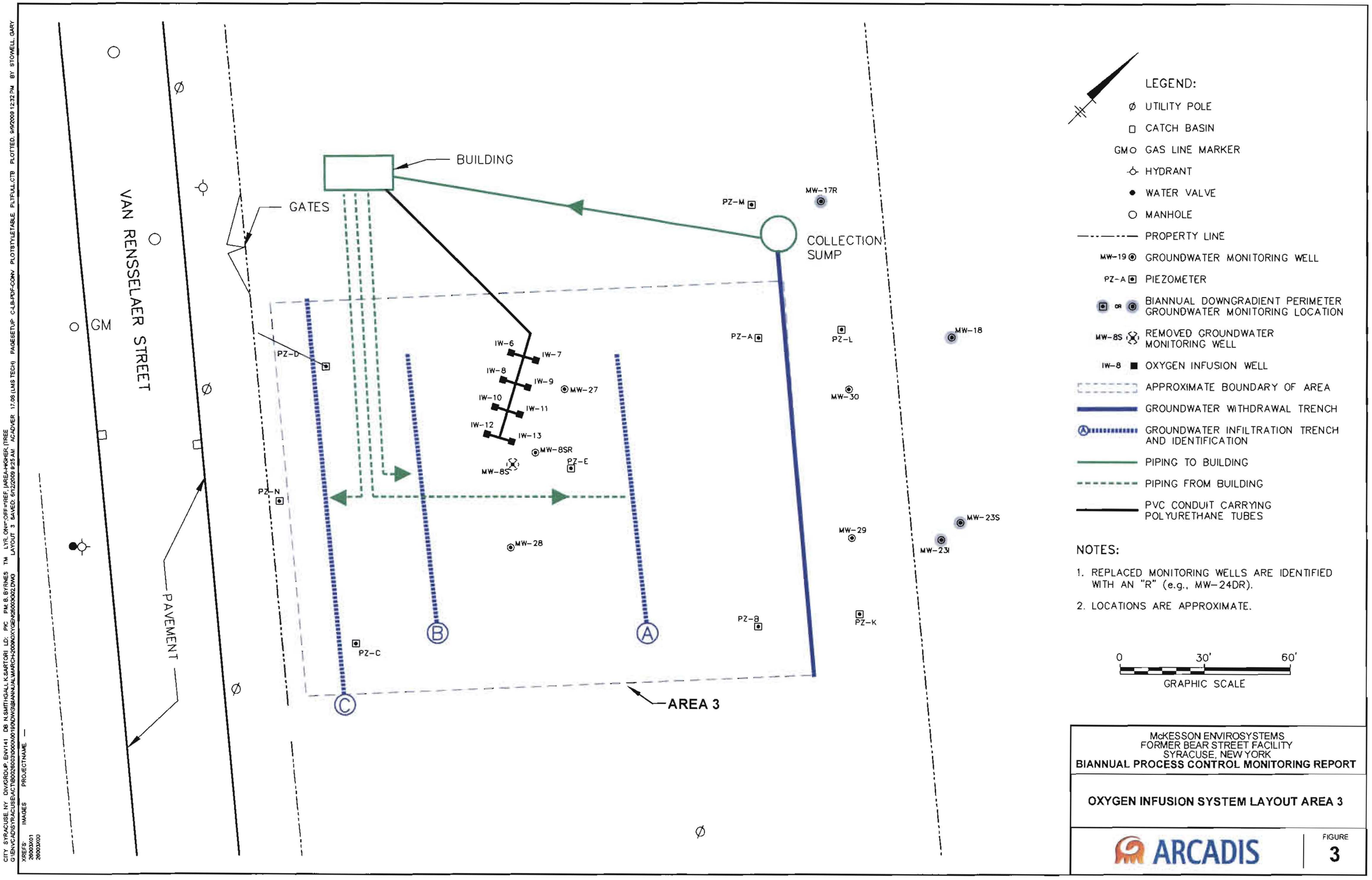
FIGURE
2



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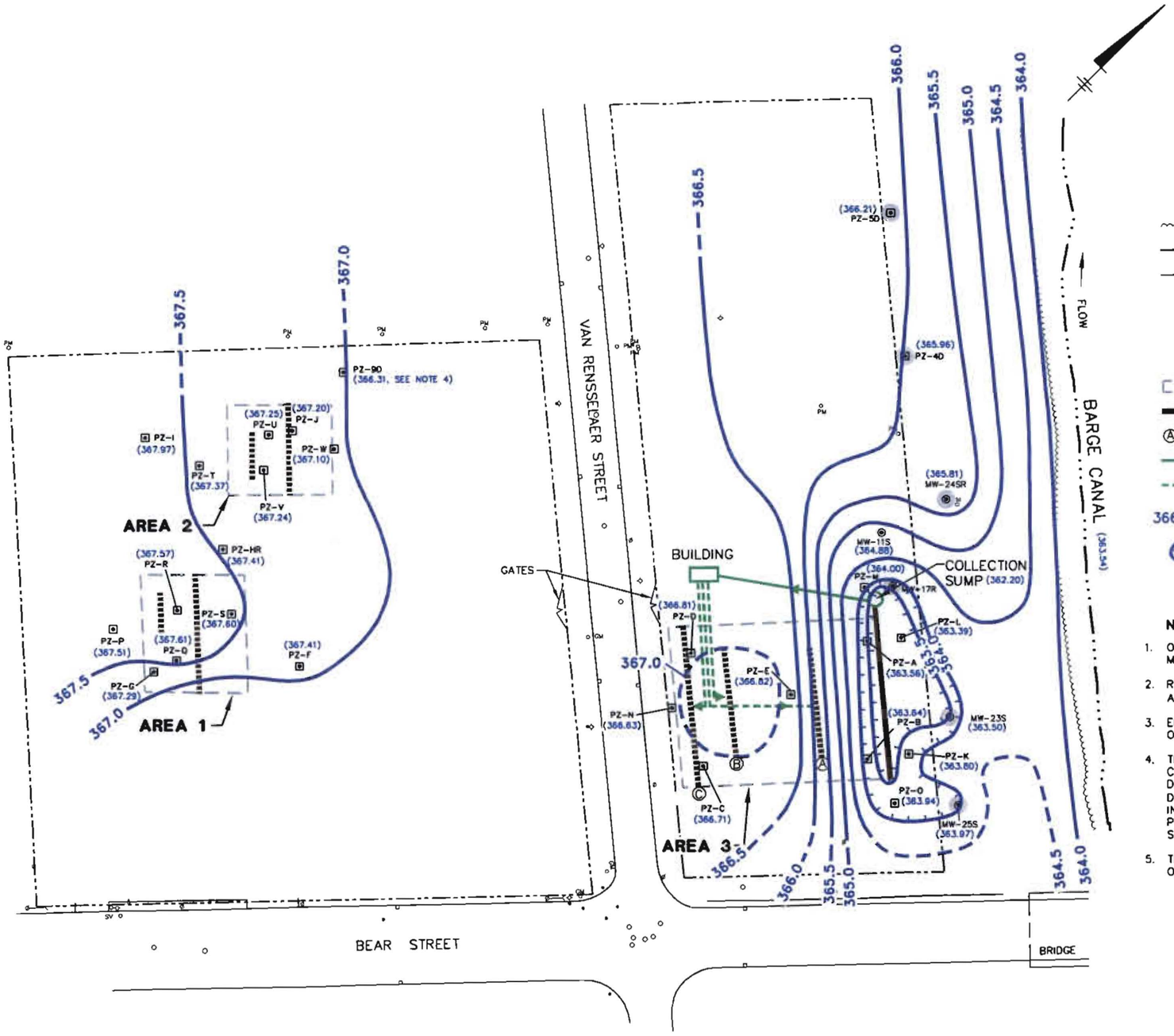
26003X00

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

OXYGEN INFUSION SYSTEM LAYOUT AREA 3

ARCADIS

FIGURE
3



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- TREE LINE
- EDGE OF BARGE CANAL
- PROPERTY LINE
- MW-19 — GROUNDWATER MONITORING WELL
- D OR — BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A — PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- A — GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- 366.5 — POTENTIOMETRIC CONTOUR (FEET ABOVE MEAN SEA LEVEL). DASHED WHERE INFERRED
- CLOSED DEPRESSION
- (365.48) — 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 GROUNDWATER ELEVATION FOR PZ-9D WAS NOT USED WHEN CONSTRUCTING THIS MAP. REVIEW OF HISTORICAL WELL-CONSTRUCTION DATA SHOWS THAT THE SCREENED INTERVAL OF THIS PIEZOMETER IS DIFFERENT (DEEPER) THAN THE OTHER HYDRAULIC MONITORING POINTS IN THE AREA, AS SUCH, WATER LEVEL DATA COLLECTED FROM THIS PIEZOMETER MAY NOT BE REPRESENTATIVE OF CONDITIONS IN THE SHALLOW HYDROGEOLOGIC UNIT SAND LAYER.
5. THE BARGE CANAL ELEVATION WAS MEASURED FROM A MARKED POINT ON THE BEAR STREET BRIDGE.

0 100' 200'

GRAPHIC SCALE

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

POTENTIOMETRIC SURFACE OF THE SHALLOW HYDROGEOLOGIC UNIT SAND LAYER - MARCH 23, 2009

ARCADIS

FIGURE 4

CITY: SYRACUSE GROUP: ENV-141 DB:RCB RCA RGB PM: D. PENNIMAN TR: B. BYRNES LYR ON=*OFF=*REF
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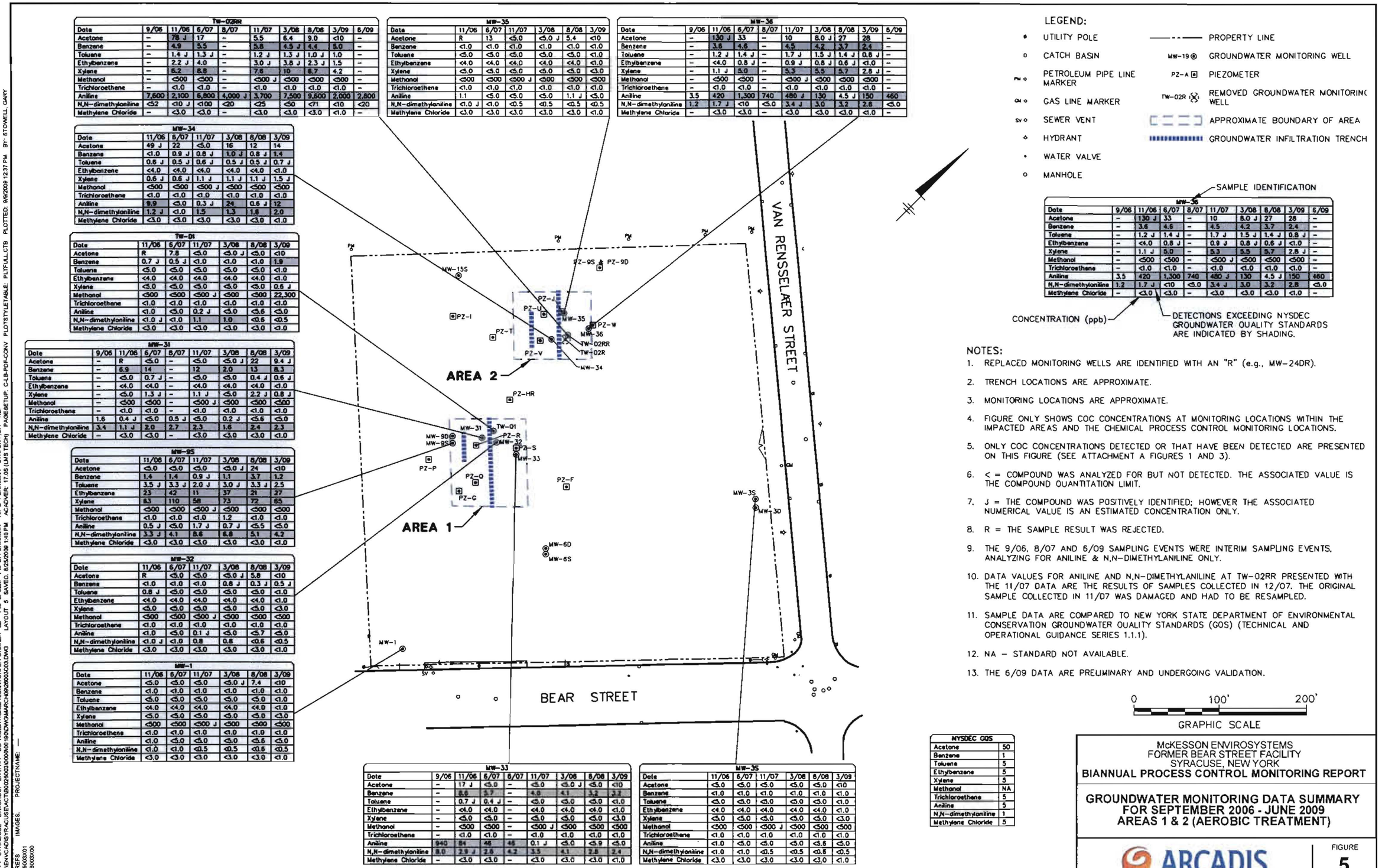

TW-02RR

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09
Acetone	–	78 J	17	–	5.5	6.4	9.0	<10	–
Benzene	–	4.9	5.5	–	5.8	4.5 J	4.4	5.0	–
Toluene	–	1.4 J	1.3 J	–	1.2 J	1.3 J	1.0 J	1.0	–
Ethylbenzene	–	2.2 J	4.0	–	3.0 J	3.8 J	2.3 J	1.5	–
Xylene	–	6.2	8.8	–	7.6	10	6.7	4.2	–
Methanol	–	<500	<500	–	<500 J	<500	<500	<500	–
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0	–
Aniline	7,600	2,100	6,800	4,000 J	3,700	7,500	9,600	2,000	2,800
N,N-dimethylaniline	<52	<10 J	<100	<20	<25	<50	<71	<10	<20
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0	–

MW-35

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	13	<5.0	<5.0 J	5.4	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	1.1	<5.0	<5.0	<5.0	1.1 J	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-36

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09
Acetone	–	130 J	33	–	10	8.0 J	27	28	–
Benzene	–	3.6	4.6	–	4.5	4.2	3.7	2.4	–
Toluene	–	1.2 J	1.4 J	–	1.7 J	1.5 J	1.4 J	0.8 J	–
Ethylbenzene	–	<4.0	0.8 J	–	0.9 J	0.8 J	0.6 J	<1.0	–
Xylene	–	1.1 J	5.0	–	5.3	5.5	5.7	2.8 J	–
Methanol	–	<500	<500	–	<500 J	<500	<500	<500	–
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0	–
Aniline	3.5	420	1,300	740	480 J	130	4.5 J	150	460
N,N-dimethylaniline	1.2	1.7 J	<10	<5.0	3.4 J	3.0	3.2	2.8	<5.0
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0	–

MW-34

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	49 J	22	<5.0	16	12	14
Benzene	<1.0	0.9 J	0.8 J	1.0 J	0.8 J	1.4
Toluene	0.6 J	0.5 J	0.6 J	0.5 J	0.5 J	0.7 J
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	0.6 J	0.6 J	1.1 J	1.1 J	1.1 J	1.5 J
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	9.9	<5.0	0.3 J	24	0.6 J	12
N,N-dimethylaniline	1.2 J	<1.0	1.5	1.3	1.8	2.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

TW-01

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	7.8	<5.0	<5.0 J	<5.0	<10
Benzene	0.7 J	0.5 J	<1.0	<1.0	<1.0	1.9
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	0.6 J
Methanol	<500	<500	<500 J	<500	<500	22,300
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	0.2 J	<5.0	<5.6	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	1.1	1.0	<0.6	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-31

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09
Acetone	–	R	<5.0	–	<5.0	<5.0 J	22	9.4 J
Benzene	–	6.9	14	–	12	2.0	13	8.3
Toluene	–	<5.0	0.7 J	–	<5.0	<5.0	0.4 J	0.6 J
Ethylbenzene	–	<4.0	<4.0	–	<4.0	<4.0	<4.0	<1.0
Xylene	–	<5.0	1.3 J	–	1.1 J	<5.0	2.2 J	0.8 J
Methanol	–	<500	<500	–	<500 J	<500	<500	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0
Aniline	1.6	0.4 J	<5.0	0.5 J	<5.0	0.2 J	<5.6	<5.0
N,N-dimethylaniline	3.4	1.1 J	2.0	2.7	2.3	1.6	2.4	2.3
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0

MW-9S

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	<5.0	<5.0	<5.0	<5.0 J	24	<10
Benzene	1.4	1.4	0.9 J	1.1	3.7	1.2
Toluene	3.5 J	3.3 J	2.0 J	3.0 J	3.3 J	2.5
Ethylbenzene	23	42	11	37	21	27
Xylene	83	110	58	73	72	65
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	1.2	<1.0	<1.0
Aniline	0.5 J	<5.0	1.7 J	0.7 J	<5.5	<5.0
N,N-dimethylaniline	3.3 J	4.1	8.8	6.8	5.1	4.2
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-32

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	<5.0	<5.0	<5.0 J	5.8	<10
Benzene	<1.0	<1.0	<1.0	0.8 J	0.3 J	0.5 J
Toluene	0.8 J	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	0.1 J	<5.0	<5.7	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	0.8	0.8	<0.6	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-1

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	<5.0	<5.0	<5.0	<5.0 J	7.4	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.6	<5.0
N,N-dimethylaniline	<1.0	<1.0	<0.5	<0.5	<0.6	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-33

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09
Acetone	–	17 J	<5.0	–	<5.0	<5.0 J	<5.0	<10
Benzene	–	8.8	5.7	–	4.0	4.1	3.2	3.2
Toluene	–	0.7 J	0.4 J	–	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	–	<4.0	<4.0	–	<4.0	<4.0	<4.0	<1.0
Xylene	–	<5.0	<5.0	–	<5.0	<5.0	<5.0	<3.0
Methanol	–	<500	<500	–	<500 J	<500	<500	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0
Aniline	940	84	46	46	0.1 J	<5.0	<5.9	<5.0
N,N-dimethylaniline	8.0	2.9 J	2.5	4.2	3.5	4.1	2.8	2.4
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0

MW-3S

Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.6	<5.0
N,N-dimethylaniline	<1.0	<1.0	<0.5	<0.5	<0.6	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

LEGEND:

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

SAMPLE IDENTIFICATION

MW-36

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09
Acetone	–	130 J	33	–	10	8.0 J	27	28	–
Benzene	–	3.6	4.6	–	4.5	4.2	3.7	2.4	–
Toluene	–	1.2 J	1.4 J	–	1.7 J	1.5 J	1.4 J	0.8 J	–
Ethylbenzene	–	<4.0	0.8 J	–	0.9 J	0.8 J	0.6 J	<1.0	–
Xylene	–	1.1 J	5.0	–	5.3	5.5	5.7	2.8 J	–
Methanol	–	<500	<500	–	<500 J	<500	<500	<500	–
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0	–
Aniline	3.5	420	1,300	740	480 J	130	4.5 J	150	460
N,N-dimethylaniline	1.2	1.7 J	<10	<5.0	3.4 J	3.0	3.2	2.8	<5.0
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0	–

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COC CONCENTRATIONS DETECTED OR THAT HAVE BEEN DETECTED ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 1 AND 3).
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. R = THE SAMPLE RESULT WAS REJECTED.
9. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY.
10. 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.
11. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
12. NA – STANDARD NOT AVAILABLE.
13. THE 6/09 DATA ARE PRELIMINARY AND UNDERGOING VALIDATION.

0 100' 200'

GRAPHIC SCALE

NYSDEC GQS	
Acetone	50
Benzene	1
Toluene	5
Ethylbenzene	5
Xylene	5
Methanol	NA
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 - JUNE 2009 AREAS 1 & 2 (AEROBIC TREATMENT)

ARCADIS

FIGURE 5

MW-27									
Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09
Acetone	–	31	21	–	<5.0 J	21	3.8 J	14 J	–
Benzene	–	14	8.4	–	6.8	8.4	5.0	8.7	–
Toluene	–	71	9.8	–	4.7 J	23	2.2 J	8.4	–
Ethylbenzene	–	42	14	–	8.6	43	1.8 J	38	–
Xylene	–	91	24	–	24	88	10	88	–
Methanol	–	<500	<500	–	<500	<500	<500	<500	–
Trichloroethene	–	<1.0	<1.0	–	<1.0	<2.0	<1.0	<1.0	–
Aniline	1,700	33,000	1,100	<10 J	3,000 J	13,000	2,400	8,300 J	7,400
N,N-dimethylaniline	<10	<210	<10	<1.0	<25 J	<100	<25	<50 J	<50
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<6.0	<3.0	<1.0	–

PZ-5S			
Date	11/06	11/07	8/08
Acetone	R	<5.0 J	<5.0
Benzene	–	<1.0	<1.0
Toluene	–	<5.0	<5.0
Ethylbenzene	–	<4.0	<4.0
Xylene	–	<5.0	<5.0
Methanol	–	<500	<500
Trichloroethene	–	<1.0	<1.0
Aniline	–	<5.0	<5.3
N,N-dimethylaniline	–	<0.5	<0.5
Methylene Chloride	–	<3.0	<3.0

PZ-5D			
Date	11/06	11/07	8/08
Acetone	–	<5.0 J	<5.0
Benzene	–	<1.0	<1.0
Toluene	–	<5.0	<5.0
Ethylbenzene	–	<4.0	<4.0
Xylene	–	<5.0	<5.0
Methanol	–	<500	<500
Trichloroethene	–	<1.0	<1.0
Aniline	<1.0	<5.0	<5.1
N,N-dimethylaniline	–	<0.5	<0.5
Methylene Chloride	–	<3.0	<3.0

MW-8SR									
Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09
Acetone	–	28	58	–	<5.0 J	<10	8.2 J	6.5 J	–
Benzene	–	16	14	–	12	5.5	11	6.8	–
Toluene	–	100	110	–	22	22	24	10	–
Ethylbenzene	–	84	83	–	73	70	70	68	–
Xylene	–	270	250	–	210	180	190	140	–
Methanol	–	<500	<500	–	<500	<500	<500	<500	–
Trichloroethene	–	<1.0	<2.0	–	<1.0	<2.0	<2.0	<1.0	–
Aniline	52,000	28,000	2,700	17,000	22,000 J	5,800	32,000	2,200	7,000
N,N-dimethylaniline	<520	<200	<22	<100	<100 J	<25	<250	<12	<50
Methylene Chloride	–	<3.0	<6.0	–	<3.0	<6.0	<6.0	<1.0	–

MW-19							
Date	11/06	6/07	11/07	3/08	8/08	3/09	
Acetone	R	<5.0	<5.0 J	<5.0	<5.0	<10	
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	
Methanol	<500	<500	<500	<500	<500	<500	
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Aniline	<1.0	<5.5	<5.0	<5.0	<5.6	<5.0	
N,N-dimethylaniline	<1.0 J	<1.1	<0.5	<0.5	<0.6	<0.5	
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	

PZ-4S			
Date	6/07	3/08	3/09
Acetone	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<3.0
Methanol	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0
Aniline	<5.5	<5.0	<5.0
N,N-dimethylaniline	<1.1	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<1.0

PZ-4D			
Date	6/07	3/08	3/09
Acetone	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<3.0
Methanol	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0
Aniline	<5.5	<5.0	<5.0
N,N-dimethylaniline	<1.1	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<1.0

MW-24DR			
Date	11/06	11/07	8/08
Acetone	R	<5.0	<5.0
Benzene	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0
Methanol	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.7
N,N-dimethylaniline	<1.0 J	<0.5	<0.6
Methylene Chloride	<3.0	<3.0	<3.0

MW-24SR			
Date	11/06	11/07	8/08
Acetone	R	<5.0	<5.0
Benzene	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0
Methanol	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.7
N,N-dimethylaniline	<1.0 J	<0.5	<0.6
Methylene Chloride	<3.0	<3.0	<3.0

MW-17R						
Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	<5.0	<5.0	<5.0	2.3 J	<10
Benzene	<1.0	0.7 J	<1.0	<1.0	1.8	2.3
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500 J	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-18						
Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	<5.0	<5.0	<5.0	5.5	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.6	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5	<0.6	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-30						
Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	11	<5.0	<5.0 J	<5.0	<5.0	<10
Benzene	1.0	<1.0	0.8 J	0.6 J	0.7 J	0.8 J
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	0.2 J	<5.0	<3.0
Methanol	<500	<500	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	200	30	49	3.0 J	31	<5.0
N,N-dimethylaniline	<1.0	<1.1	<0.5	0.7	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-26								
Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09
Acetone	–	12	13	–	<5.0 J	<5.0	<5.0	<10
Benzene	–	8.2	4.8	–	4.5	4.0	3.8	3.5
Toluene	–	1.4 J	0.4 J	–	0.5 J	0.5 J	<5.0	0.3 J
Ethylbenzene	–	5.8	0.8 J	–	1.4 J	1.6 J	<4.0	0.8 J
Xylene	–	4.4 J	0.6 J	–	0.8 J	1.3 J	<5.0	1.1 J
Methanol	–	<500	<500	–	<500	<500	<500	851
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0
Aniline	280	1,000	80	40	29	81	0.7 J	18
N,N-dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.5 J	0.9	<0.5	<0.5
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0

MW-29								
Date	11/06	6/07	11/07	3/08	8/08	3/09		
Acetone	5.4	<5.0	<5.0 J	<5.0	<5.0	<10		
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0		
Xylene	<5.0	0.5 J	<5.0	<5.0	<5.0	<3.0		
Methanol	<500	<500	<500	<500	<500	<500		
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Aniline	0.4 J	<5.5	<5.0 J	<5.0	<5.0	<5.0		
N,N-dimethylaniline	<1.0	<1.1	<0.5 J	<0.5	<0.5	<0.5		
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0		

MW-23S						
Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	<5.0	<5.0	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.2	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-25D				
Date	6/07	3/08	8/08	3/09
Acetone	12 J	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	<5.0	<5.0	<5.0	<5.0
N,N-dimethylaniline	<1.0	<1.0	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<1.0

MW-23						
Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	<5.0	<5.0	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

MW-23D						
Date	11/06	6/07	11/07	3/08	8/08	3/09
Acetone	R	<5.0	<5.0	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
Xylene	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0
Methanol	<500	<500	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.6	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5	<0.6	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORINC 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. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. R = THE SAMPLE RESULT WAS REJECTED.
9. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS. ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY.
10. 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).
11. NA – STANDARD NOT AVAILABLE
12. THE 6/09 DATA ARE PRELIMINARY AND UNDERGOING VALIDATION.

SAMPLE IDENTIFICATION

MW-26								
Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09
Acetone	–	12	13	–	<5.0 J	<5.0	<5.0	<10
Benzene	–	8.2	4.8	–	4.5	4.0	3.8	3.5
Toluene	–	1.4 J	0.4 J	–	0.5 J	0.5 J	<5.0	0.3 J
Ethylbenzene	–	5.8	0.8 J	–	1.4 J	1.6 J	<4.0	0.8 J
Xylene	–	4.4 J	0.6 J	–	0.8 J	1.3 J	<5.0	1.1 J
Methanol	–	<500	<500	–	<500	<500	<500	851
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0	<1.0	<1.0
Aniline	280	1,000	80	40	29	81	0.7 J	18
N,N-dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.5 J	0.9	<0.5	<0.5
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0	<3.0	<1.0

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

CONCENTRATION (ppb)

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

0 100' 200'

GRAPHIC SCALE

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

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

ARCADIS

FIGURE 6

ARCADIS

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, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	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			0.7 JN	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			8 J	<10 J	3 J	<10 J	5.0 J	<1,000	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	10
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	4/02			<12	<5.0	<5.0	<5.0	<10	990 J	<5	<5	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	2 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	0.2 J	<1.0	<3.0
	11/05			<1.3 J	<0.3	<0.4	<0.5	<0.5	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0 J	<1.0 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	<1.0 J	<3.0 J
MW-2S	3/88	368.1	353.1	<1,000	1,900	110	610	2,800	<1,000	<10	<10	<10	<10
	1/89			<1,000	2,000	65	330	1,200	<1,000	<10	<11	<11	<10
	11/89			<1,000	1,800	<100	360	810	38,000	<100	<100	<100	<100
MW-3S	3/88	365.1	350.1	<100	<1	<1	<1	<1	<1,000	50	<10	<10	110
	1/89			<10,000	<100	120	<100	<100	<1,000	1,100	<11	5,570	4,700
	11/89			<10,000	<100	<100	<100	<100	<1,000	100	<52	440	2,700
	11/91			2,900	10	10	4.0	31	<1,000	<10	790	170	<10
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5.0	15	2.0 J	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10	1 J	0.7 J	<10	<10	<1,000	<10	9 J	<10	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	9/00			<10 J	1 J	2 J	<10 J	<10 J	<1,000	<10 J	2 J	1 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	3 J	8 J	1 J	2 J	<1,000 J	<10	690 D (69)[B]	4 J	<10
	4/02			<12	<5	<5	<5	<10	370 J	<5.0	1.7 J	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			6.0 J	<10	<10	<10	<20	<1,000	<10	0.8 J	<6	<10

See notes on page 15

Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	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[C]	3/88	363.3	348 3	<100	<1	<1	<1	<1	<1,000	<1	230	130	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	34	<11	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	17	<10	<1
MW-6[D]	1/89	365.5	355 9	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
(Replaced by MW-6S)	11/89			<10	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
MW-7[D]	1/89	367	357 4	<100	<1	<1	<1	2	<1,000	<1	<11	<11	100
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-8[D]	1/89	364.7	355 1	<1,000,000	<10,000	<10,000	<10,000	<10,000	430,000	<10,000	2,900	24,000	3,200,000
(Replaced by MW-8S)[E]	11/89			470,000	<10,000	<10,000	<10,000	<10,000	300,000	<10,000	8,600	52,000	2,600,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	150,000	<10,000	8,000	33,000 J	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 J	267 J	<1,000	3,100	80,000	21,000 J	320,000
	5/03			<12	20 J	600 D	81 J	300 J	<1,000	6,700 D	79,000 D	29 J	910,000 D
	10/03			21	25	330 D	93 J	360 J	1,200 J	3,100 D	67,000 D	24,000 D	400,000 D
	6/04			<25	40	330 EJ	110 J	400 J	<1,000	6,900 D	66,000	51,000	1,200,000 D
MW-8SR	11/04	362 7	352 7	<1,200	<500	100 DJ	<500	184 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[D]	1/89	365.6	356	1,600	NA	64	130	270	<1,000	<10	660	1,200	1,500
(Replaced by MW-9S)	11/89			<1,000	48	25	60	60	<1,000	<10	670	150	<10
	11/91			<100	<10	9	19	30	<1,000	<1 0	95	18	<1
	8/95			<1,000	11 JD	26 JD	69 D	226 JD	<1,000	<50	50	28	110 D
	7/99			<10	4 J	2 J	9 J	18	<1,000	<10	<10	5.0 J	<10

See notes on page 15

Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-9[D]	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 J	2 J	6	17 J	370 J	<5	9	43	<5
	10/02			16 J	35	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	8 J	2.0 J	6 J	19 J	<1,000	<10	<5.0	<5.0	<10
	11/04			<25	2 J	2 J	9 UJ	30 J	<1,000	<10	<5.0	<5.0	<10
	6/05			44 J	1.8	3.2 J	24	64	<1,000	<1.0	2.6	1.9	<3.0
	11/05			<1.3 J	3.6	3.8	31	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[D]	1/89	355.5	345.9	<1,000,000	<10,000	<10,000	<10,000	<10,000	210,000	<10,000	720	9,400	620,000
(Replaced by MW-9D)	11/89			<100,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	900	2,400	28,000
	11/91			<100	<1	3.0	2.0	<3.0	<1,000	<1	230	<10	41
	8/95			<1,000	<25 UD	<25 UD	<25 UD	<25 UD	<1,000	<25 UD	<5.0	<10	350 D
MW-11[D]	1/89	355.1	345.5	<100	<1	<1	<1	<1	8,400	<1	<12	<12	1
(Replaced MW-6D)	11/89			<100	<1	<1	<1	<1	<1,000	<1	230	<52	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
MW-11S	12/94	359.9	354.9	<380	<10	<10	<10	<10	880	<10	<5	<10	<10
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<26
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
MW-11D	12/94	349.8	344.8	<310	<5	<5	<5	<5	2,100	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
MW-12D[D]	1/89	354.8	345.2	<100,000	<1,000	<1,000	<1,000	<1,000	12,000	<1,000	67	410	120,000
(Replaced MW-8D)[E]	11/89			69,000	<1,000	<1,000	<1,000	<1,000	39,000	<1,000	<1,000	4,900	360,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	<10,000	<10,000	750	5,800	220,000
	8/95			<1,000	450 JD	430 JD	430 JD	1,250 JD	<1,000	<1,300 D	30 D	230 D	<13,000 D
	8/96			13	<10	<10	<10	<10	<1,000	2.0 J	<5	<10	40
MW-13S	11/89	368.7	359.1	<100	3	<1	<1	<1	<1,000	<1.0	<52	<52	<1.0
	11/90			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/91			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/92			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
MW-14D[C]	1/89	359	349.4	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<10	<10	<1.0
MW-15S	1/89	370	360.25	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<52	<52	<1.0
MW-16D[C]	1/89	350.8	341.2	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<10	<10	<1.0

See notes on page 15

Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-17[C]	11/90	365.7	356.1	<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
(Replaced by MW-17R)	11/91			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/92			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<11
	10/95			NA	<5	<5	<5	<5	NA	2 J	NA	NA	<5
	8/96			11	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	1 J	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	8 J	<10	<10	<10	<1,000 J	<10	<5.0	<10	<10
	9/00			<10 J	15 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	24 J	4 J	1 J
	3/01			<10	8 J	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	5 J	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	8	<5	<5	<10	620 J	<5	150 (<5)[F]	110 (<5)[F]	<5
	10/02			<25 J	14	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	8	<5	<5	<5	<1,000	<5	<5	<5	<5
	11/03			<12	7	<5	<5	<10	<1,000	<5	<5	<5	<5
	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[H]	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10

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Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-18	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
(cont'd)	4/02			<10	<10	<10	<10	<20	**720 J**	<10	**280 D (<5)[E]**	**200 D (<5)[E]**	<10
	10/02			**6 J**	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	**280 J**	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.7 J**	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	R	R	<10
	11/04			–	–	–	–	–	<1,000	–	<5	<5	–
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1 1	<1.1 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4 0	<5.0	<1,000	<1 0	<1.0	<1.0	<3.0
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[H]	**5 J**	<11
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	10/03			<11	<5	<5	<5	<10	<1,000	<5	**51 J**	**16 J**	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5 0	<4.0	<5.0	<1,000	<1 0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1 0	<5.0	<4.0	<5 0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1 0	<5.0	<4.0	<5.0	<1,000	<1 0	<1.0	<1 0	<3.0
MW-20[C]	11/89	329.85	320 85	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
MW-21[C]	11/89	323.65	314 65	<100	<5	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-22	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, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-23S	12/94	364.1	354.1	<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	7	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	11	<10	<10
	8/97			12	<10	<10	<10	<10	<1,000	<10	92	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	56[H]	7 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	10	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	2 J	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	2 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	2 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<62	<25	<25	<25	<50	380 J	<25	<5	<5	<25
	10/03			<12	<5	<5	<5	<10	<1,000	<5	60	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.2	<1.2	<3.0
MW-23I	12/94	341.2	336.2	<10	<5.0	<5	<5.0	<5.0	<200	<5.0	<5.0	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<11	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			4 J	<10	<10	<10	2 J	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	2 J
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	1 J	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--

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Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-23I	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
(cont'd)	11/05			<5 0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1 0	<1.0	<1.0 J	<3.0
	6/06			<5 0 J	<1.0	**0.6 J**	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
MW-24S[C]	12/94	358.4	352.4	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<5
(Replaced by MW-24SR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02[F]			NS	NS	NS	NS	NS	NS	NS	ND	ND	NS
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**16**	<6	<5
	6/04[J]			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5 0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
MW-24D[C]	12/94	334 4	341 2	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<5
(Replaced by MW-24DR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02[F]			NS	NS	NS	NS	NS	NS	NS	ND	ND	NS
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.5 J**	<5	<5
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5 J	<1	<5	<4	<5	<1,000	<1	<1	<1	<3
	11/05			<5.0 J	<1 0	<5.0	<4.0	<5 0	<1,000	<1 0	<1.1	<1.1 J	<3 0
MW-25S	8/95	361 2	356.2	<1,000	<5	<5	<5	<5	<1,000	<5	<5	**0.7 J**	<10
	10/95			NA	<5	<5	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	**130**	<10	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	**110 J**	**21 J**	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	**5 J**	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10

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Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-25S	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
(cont'd)	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	11/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5 0 J	<1 0	<5.0	<4.0	<5 0	<1,000	<1.0	<1 1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1 0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
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	<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	80 JN
	5/03			<12	8	11	23	61	<1,000	<5	15,000 DJ	11	43
	10/03			170	6	<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)	177 (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)	8.5 J (8.9 J)	50 J (48 J)	25 J (25 J)	56 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, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-28	9/98	363.6	355 6	<5,000 J	<5,000	<5,000	<5,000	<5,000	2,200	<5,000	546 DJ	54	54,000 J
	7/99			<500 J	<500	<500	<500	<500	<1,000	<500	1,100 D	40	49,000 DJ
	3/00			<10,000	<10,000	<10,000	<10,000	<10,000	<1,000 J	<10,000	1,300 D	30	130,000 J
	9/00			<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	540 DJ	<10	2,100 BJ
	3/01			<400	<400	<400	<400	<400	<1,000	<400	3,200 D	7 J	6,900 B
	9/01			<400	<400	<400	<400	<400	<1,000 J	<400	1,000 D	<10	4,700 B
	4/02			<49	8	6	9	10 J	<1,000	<5	33,400 D	67	4,600 D
	10/02			14 J	8 J	6 J	11	12 J	<1,000	<10	2,700 D	R	<10
	5/03			13	4 J	2 J	2 J	6 J	<1,000	<5	1,000 DJ	3 J	52
	10/03			24	11	6	12	13 J	<1,000	<5	1,900 D	<5	<5
	6/04			20 J	4 J	2 J	5 J	4 J	<1,000	<10	910 D	<5	<10
	11/04			<120 (<25)	<50 (4 J)	<50 (<10)	<50 (5 J)	<100 (3 J)	190 J	<50 (<10)	640 DJ	<5	<50 (<10)
	6/05			5.2 J	4.5	1.2 J	4.6	3.9 J	<1,000	<1.0	630	<5.0	<3.0
	11/05			6.8 J (7.8 J)	6.1 (5.8)	<5 0 (<5.0)	4.7 (4.7)	<5.0 (<5.0)	<1,000 (<1,000)	<1.0 (<1.0)	360 J (390 J)	<2.2 (<2.1)	<3.0 (<3.0)
	6/06			<5.0 J (<5.0 J)	6.0 J (6.3 J)	1.2 J (1.3 J)	5.3 J (5.4 J)	4.2 J (4.3 J)	<500 J (<1,000 J)	<1.0 J (<1 0 J)	430 J (530 J)	<2.1 J (<5.0 J)	<3.0 J (<3.0 J)
MW-29	9/98	362 9	345.9	<10	<10	<10	<10	2 J	<1,000	<10	<10	13	<10
	2/99			7 J	<10	<10	<10	1 J	<1,000	<10	5 J	4 J	<10
	7/99			<10	<10	<10	<10	<10	<1,000	<10	2 J	4 J	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	450 D	6 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	24 J	4 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	30	4 J	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	7 J	2 J	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	3 J	9	<6
	10/02			<25 J	<10	<10	<10	<20	<1,000	<10	8	R	4 JN
	5/03			<12	<5	<5	<5	<10	<1,000	<5	19	1 J	<3
	10/03			<12	<5	<5	<5	<10	<1,000	<5	2 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	3 J	<5	<10
	11/04			<120	<50	<50	<50	<100	420 J	<50	<5	<5	<50
	6/05			<5.0 J	<1 0	<5.0	<4 0	<5.0	<1,000	<1.0	<1 0	<1.0	<3.0
	11/05			<5 0 J	<1.0	<5 0	<4.0	<5 0	<1,000	<1.0	<1 0	<1.0 J	<3 0
	6/06			<5 0	<1.0	<5.0	<4.0	<5 0	<1,000	<1.0	<1 0	<1.0	<3.0
MW-30	9/98	363 5	355.5	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	2/99			7 J	<10	<10	<10	<10	<1,000	<10	<10	2 J	<10
	7/99			<10	0.7 J	<10	<10	<10	<1,000	0.5 J	<10	1 J	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	18	2 J	4 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	9 J	2 J	2 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	8 J	2 J	<10
	9/01			4 J	2 J	<10	<10	<10	<1,000 J	<10	8 J	1 J	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	250	210	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	R	R	<10
	5/03			<62	<25	<25	<25	<50	<1,000	<25	18	0.6 J	8 J

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-30	10/03			<12	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
(cont'd)	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	3 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	<10
	7/99			3 J	14	2 J	4 J	<10	<1,000	56	<10	3 J	<10
	3/00			<10	5 J	<10	<10	<10	<1,000 J	<10	800 D	<10	<10
	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	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	120	6 J	<10
	7/99			5 J	2 J	0.7 J	<10	<10	<1,000	<10	150	8 J	<23
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	51	7 J	11
	9/00			45 J	4 J	1 J	<10 J	<10 J	<1,000	<10 J	540 D	23	330 DJ

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Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
MW-33	3/01			17 J	<20	<20	<20	<20	<1,000	<20	1,300 D	16	370 B
(cont'd)	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	2,700 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	36 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	46 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
MW-34	9/98	362.7	354.7	<10	<10	<10	<10	<10	<1,000	<10	85	<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	79 J	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	2.6	<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
MW-35	9/98	363	355	<10	<10	<10	<10	<10	<1,000	<10	6 J	5 J	<10
	7/99			<10	0.7 J	<10	<10	<10	<1,000	<10	3 J	4 J	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	3 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	4/02			<13	<5	<5	<5	<10	<1,000	<5	3 J	4 J	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	2 J	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	1,000	<100	<5
	10/03			5 J	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	30	4 J	<10
	11/04			<25	<10	<10	<10	<20	240 J	<10	82	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	0.4 J	<1.0	<3.0

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Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	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	62	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	3 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	5.3 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	6	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[C]	12/96	363.3	353.3	53	10	77	16	65	<1,000	585 D	15,900 JD	3,920 D	42,449 D
(Replaced by TW-02R)[E]	9/98			<500 J	<500 J	<500 J	<500 J	53,000	5,000	300 J	38,000 D	61,000 D	86,000 D
	2/99			<1,000	<1,000	190 J	<1,000	150 J	14,000JN	<1,000	83,000 D	7,900	14,000 B
	7/99			630	37	240 J	31	150 J	<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	150 J	<1,000	6 J	79,000	<10,000	390 J
	3/01			81	19	68	29	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, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
TW-02	4/02			240	19	65	23	96	<1,000	<5	1,090,000 D	<5,300	14
(cont'd.)	10/02			110 J	15	19	23	65	<1,000	<10	80,000 D	110 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-02RR	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	6,400	<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)[F]	<5 (<5)[F]	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5

See notes on page 15

Table 1. Summary of Historical Groundwater Monitoring Data, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5
PZ-4S	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
(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
	6/06			<5 0	<1.0	**0.6 J**	<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	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<12
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**46**	<5	<5
	6/04[J]			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1 0	<5 0	<4.0	<5.0	<1,000	<1 0	<1.0	<1.0	<3.0
	11/05			<5 0 J	<1 0	**0.7 J**	<4.0	<5.0	<1,000	<1 0	<1 0	<1 0 J	<3.0
PZ-5S	11/89	361 42	356 52	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			**5 J**	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<12
	6/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			**7 J**	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5 0 J	<1.0	<5 0	<4.0	<5.0	<1,000	<1 0	<1 1	<1.1	<3.0
PZ-5S	11/05			<5 0 J	<1 0	<5 0	<4 0	<5.0	<1,000	<1 0	<1 0	<1.0 J	<3 0
PZ-8S[I]	9/98	362 6	357 7	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
PZ-11D[D]	11/89	352 09	347 19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-11S[D]	11/89	359 09	354.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-12D[D]	11/89	350	345 1	<100	<1	<1	<1	<1	<1,000	<1	<53	<53	<1
	11/90			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<1	**3**	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
PZ-12S[D]	11/89	360	355.1	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	**6**	<1	<10	<10	**5**
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
PZ-13D[C]	11/89	349 4	344.4	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-13S[C]	11/89	359 5	354.5	<100	<1	2	<1	**2**	<1,000	<1	<11	<11	<1

See notes on page 15

Table 1. Summary of Historical Groundwster Monitoring Data, 2009 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 methenol at 5.1 milligrams per liter. Because methanol was not detected in the orginel 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 methenol appears to be the result of a laboratory error and not representative of actual groundwater quality in the vicinity of monitoring well MW-23S
7 N,N-dimethylaniline data for 10/02 sampling event for MW-1, MW-3S, MW-28, MW-29, MW-32, MW-35 and TW-01 were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. Aniline and N,N-dimethylaniline data for 10/02 sampling event for MW-30 were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. These wells and piezometers are not perimeter monitoring locations and were not resampled
8 Aniline and N,N-dimethylaniline results of nondetect for the 6/04 sampling event at MW-18 were rejected due to the deviation from a surrogate recovery that was below 10%. This well was not resampled
9 Volatile organic compound (VOC) results for the 11/04 sampling event were inadvertently lost due to laboratory equipment failure for monitoring locations MW-1, MW-17R, MW-18, MW-23I, MW-23S, MW-24DR, MW-24SR, MW-25, MW-33, PZ-5D and PZ-5S. In addition, the initial VOC results were also irretrievable due to laboratory equipment failure for monitoring locations MW-27, MW-28, MW-29 and MW-30; however, results for subsequent dilutions of these groundwater samples were valid, but the detection limits were high. The duplicate sample VOC results for MW-27 and MW-28 have lower detection limits and are presented in parentheses. These wells were not resampled.

Superscript Notes:

[A] = Data presented is total xylenes (m- and p-xylenes and o-xylenes). For the 1995 data, the listed quantitstion limit applies to the enelyses conducted for m- and p-xylenes and o-xylenes.
[B] = Because aniline was detected at monitoring well MW-3S at a concentration of 690 ug/l during the September 2001 sampling event, this well was resampled for aniline on November 8, 2001 Aniline was detected in MW-3S during the November 8, 2001 resampling event at a concentration of 69 ug/l.
[C] = Wells/piezometers MW-5, MW-14D, MW-16D, MW-17, MW-20, MW-21, MW-24S, MW-24D, TW-02, PZ-13S, and PZ-13D were abandoned 11/97 - 1/98.
[D] = Wells/piezometers MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12D, PZ-11D, PZ-11S, PZ-12D, and PZ-12S were abandoned during OU No.1 soil remediation activities (1994)
[E] = Wells MW-8S, MW-6D, and TW-02R were abendoned in 8/04 and replacement wells MW-8SR and TW-02RR were installed in 8/04.
[F] = MW-17R, MW-18, and PZ-4S wells/piezometers were resampled for aniline and N,N-dimethylaniline on June 18, 2002 because N,N-dimethylaniline and/or aniline was detected during the April 2002 sampling event. The results of this additional sampling event are shown in parenthesis. MW-24SR and MW-24DR were also sampled for aniline and N,N-dimethylaniline on June 18, 2002, because N,N-dimethylaniline and/or aniline was detected at nearby perimeter monitoring locations during the April 2002 sampling event.
[G] = MW-17R, MW-18, MW-19, MW-23S, MW-23I, MW-24DR, MW-24SR, MW-25S, PZ-4S, PZ-5S and PZ-5D wells/peizometers were resampled for aniline and N,N-dimethylanilina during 1/03, because the 10/02 results were rejected due to matrix spike and matrix spike duplicate recoveries below control limits These wells and piezometers are perimeter monitoring locations.
[H] = MW-18, MW-19, MW-23I, MW-23S, MW24DR, MW-24SR, MW-28, PZ-5S and PZ-5D wells/piezometers were resampled for aniline during 12/98, because the 9/98 results were rejected due to laboratory error.
[I] = Piezometer PZ-8S was decommissioned 8/00.
[J] = MW-24SR and PZ-6D 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, 2009 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													361.76
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	375.63	365.90	366.11	366.35			365.25	365.13	365.63					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	362.62	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	376.13	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	375.76	366.07					365.46	365.31						365.41	365.28

See notes on page 4.

Table 2. Summary of Historical Groundwater Level Measurements, 2009 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 48	7/13/99 Week 52	3/27/00	6/1/00	9/18/00	11/14/00	3/19/01	9/24/01	4/15/02
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	364.59
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	362.27
MW-3S	376.54	365.67	366.81	365.67	365.25		365.26		357.10						367.70
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	364.16
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	364.22
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	364.13
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	364.05
MW-11D	373.68	364.73		364.73	364.57	365.02	364.60	364.16	365.24	365.18	364.46	364.81	364.96	364.18	364.07
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	363.57
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	361.65
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	361.83
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	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	363.97
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	364.06
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	364.00
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	364.19
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	364.39
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	364.06
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	364.12
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	363.75
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	363.92
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	364.44
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	365.68
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	365.58
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	366.51
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	365.50
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	365.39
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	365.39
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	366.29
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	365.10
PZ-K	373.19	362.66	363.70	362.78	362.58	363.67	363.13	362.59	363.97	363.19	362.69	362.86	363.53	362.49	363.82
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	363.44
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	363.66	362.90	363.93
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	366.60
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	364.47
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	365.31
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	366.11
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	365.40
PZ-S	376.13	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	365.27
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	365.34
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	365.18
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	365.30
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	365.05

See notes on page 4.

Table 2. Summary of Historical Groundwater Level Measurements, 2009 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	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*	363.64	364.17	362.19	^^	363.34	363.34	363.39	363.39	364.39^^^	363.84	363.69
Collection Sump	372.81	361.50	361.42	362.05	361.90	361.91	361.88	362.11	362.00	361.49	362.96	361.70
MW-3S	376.54	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	364.55	365.10	363.92	365.10	365.53	365.05	365.59	365.27	365.36	366.25	366.07
MW-6D	377.07	364.62	365.21	364.07	365.31	365.75	365.24	365.80	365.46	365.59	366.45	366.29
MW-8D	374.68	364.51	365.01	363.82	^^	365.30	364.83	365.39				
MW-9D	376.76**	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	364.44	364.92	363.73	364.81	365.17	364.75	365.26	364.93	364.00	365.94	365.78
MW-11S	373.50	363.89	364.33	363.09	364.15	364.38	363.89	364.34	363.98	364.12	365.06	365.04
MW-18	372.57	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	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	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	363.38	363.68	362.50	362.26	363.31	362.81	363.04	362.77	362.80	364.05	363.80
MW-24DR	375.14	364.43	364.90	363.71	364.75	365.13	364.69	365.19	364.86	364.94	365.90	365.74
MW-24SR	375.55	364.40	364.86	363.64	364.69	365.03	364.62	365.12	364.78	364.88	365.81	365.66
MW-25D	373.67	364.57	365.02	363.82	364.82	365.24	364.74	365.26	364.93	365.00	364.49	365.77
MW-25S	373.39	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	364.43	364.94	363.73	364.81	365.23	364.78	365.28	364.96	365.07	365.96	365.85
PZ-5D	375.58	364.47	365.03	363.81	365.05	365.49	365.02	365.53	365.20	365.29	365.19	365.98
PZ-6D	375.83											
PZ-9D	377.29	364.14	364.79	363.71	365.08	365.64	365.09	365.66	365.35	365.48	366.33	366.19
PZ-A	373.94	363.05	363.22	362.59	^^	363.40	363.57	363.18	362.89	362.96	364.20	364.14
PZ-B	373.92	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	365.38	366.26	364.19	365.65	365.76	365.44	366.07	365.50	365.65	366.65	366.45
PZ-D	375.12	365.41	366.21	364.21	365.65	365.84	365.53	366.11	365.62	365.75	366.75	366.57
PZ-E	374.12	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	365.51	366.29	364.29	366.25	366.41	365.46	366.65	365.75	366.13	367.59	367.16
PZ-G	377.16	365.53	366.22	364.36	366.35	366.46	365.43	366.68	365.81	366.14	367.76	366.97
PZ-HR	376.99	365.46	366.19	364.24	366.22	366.41	365.50	366.62	365.81	366.12	367.56	367.14
PZ-I	375.15	366.16	367.05	364.22	366.58	366.90	365.97	367.01	365.26	366.41	368.02	367.82
PZ-J	374.89	365.18	365.89	364.21	365.96	366.73	365.61	366.45	365.86	366.07	367.29	367.04
PZ-K	373.19	363.19	363.48	362.56	363.25	363.36	363.12	363.13	362.84	362.97	364.21	364.01
PZ-L	374.62	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	363.37	363.62	362.82	363.60	363.77	363.66	363.61	363.31	363.45	364.53	364.40
PZ-N	376.94***	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	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	365.48	366.19	364.25	366.25	366.45	365.53	366.65	365.87	366.20	367.63	367.19
PZ-Q	377.61	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	365.58	366.31	364.31	366.34	366.46	365.31	366.72	365.85	366.17	367.73	367.15
PZ-S	378.13	365.53	366.29	364.31	366.29	366.42	365.42	367.18	367.10	366.31	367.83	367.20
PZ-T	376.25	365.37	366.10	364.20	366.16	366.38	365.74	366.54	365.85	366.13	367.48	367.15
PZ-U	375.35	365.23	365.96	364.18	366.00	365.83	365.66	366.43	365.82	366.05	367.33	367.07
PZ-V	375.78	365.24	365.97	364.15	365.98	366.71	365.84	366.44	365.76	365.99	367.33	367.06
PZ-W	375.78	365.12	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, 2009 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.

MW-35

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

MW-36

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

TW-02R

Date	12/96	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	53	<500 J	<1,000	630	<1,000 J	190 J	81	57	240	110 J	240
Benzene	10	<500 J	<1,000	37	<1,000	28 J	19	25	19	15	30
Toluene	77	<500 J	190 J	240 J	160 J	95 J	68	70	65	19	130
Ethylbenzene	16	<500 J	<1,000	31	<1,000	35 J	28	31	23	23	49
Xylene	65	140 J	150 J	150	240 J	160 J	130	140	96	65	226
Methanol	<1,000	5,000	14,000 JN	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000
Trichloroethene	585 D	300 J	<1,000	55	<1,000	6 J	<10	<20	<5	<10	<5
Aniline	15,900 JD	38,000 D	83,000 D	100,000 D	84,000 D	79,000	67,000 D	83,000 D	1,090,000 D	80,000 D	160,000 D
N,N-dimethylaniline	3,920 D	61,000 D	7,900	3,500 J	3,900	<10,000	650 J	32	<5,300	10 J	230
Methylene Chloride	42,449 D	86,000 D	14,000 B	9,700 D	13,000	390 J	400 D	48 B	14	<10	97

MW-34

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

TW-01

Date	12/96	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	82	15	24	18	16	11 J	5 J	10	3 J	7 J	7
Toluene	4 J	<10	2 J	1 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	6 J	4 J	2 J	3 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	4 J	<10	2 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Aniline	2,090 D	4,400 DEJ	9,000 D	4,400 D	280 D	15	<10	8	<5	<10	<5
N,N-dimethylaniline	13	4 J	5 J	4 J	4 J	2 J	3 J	2 J	13	R	1 J
Methylene Chloride	4 J	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Acetone	<10	<10	<10	<10	<10	<10 J	<10	<10	<14	<25	<12

MW-31

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	<10	<10 J	21	<10	<14	<25	<12
Benzene	12	16	18	12 J	11	14	9	11	9
Aniline	34	230 D	3 J	10	<10	91 D	804 D	560 D	0.9 J
N,N-dimethylaniline	4 J	3 J	4 J	6 J	5 J	3 J	21	1 J	3 J

MW-9S

Date	1/89	11/89	11/91	8/95	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	1,600	<1,000	<100	<1,000	<10	<10	<10 J	<10	<10	<23	16 J	<12
Benzene	NA	48	<10	11 JD	4 J	2 J	11 J	1 J	10	10	38	11
Toluene	64	25	9	26 JD	2 J	2 J	2 J	3 J	3 J	2 J	40	<5
Ethylbenzene	130	60	19	69 D	9 J	11	6 J	17	7 J	6	2 J	7
Xylene	270	60	30	228 JD	18	21	18 J	61	35	17 J	15 J	18
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Aniline	660	670	95	50	<10	2 J	1 J	2 J	<10	9	<5	0.9 J
N,N-dimethylaniline	1,200	150	18	28	5 J	9 J	6 J	11	10	43	2 J	3 J
Methylene Chloride	1,500	<10	<1	110 D	<10	<10	<10 J	<10	<10	<5	<10	<5

MW-32

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	3 J	<10	<10 J	<10	<10	<15	<25	<12
Benzene	18	14	5 J	12 J	5 J	10	4 J	4 J	<5
Toluene	2 J	2 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	5 J	4 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	3 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Trichloroethene	<10	56	<10	<10 J	<10	<10	<5	<10	<5
Aniline	8,300 D	<10	800 D	4,500 D	1,900 D	1,100 D	4,820 D	50	0.6 J
N,N-dimethylaniline	4 J	3 J	<10	<10	2 J	2 J	11	R	0.7 J

MW-33

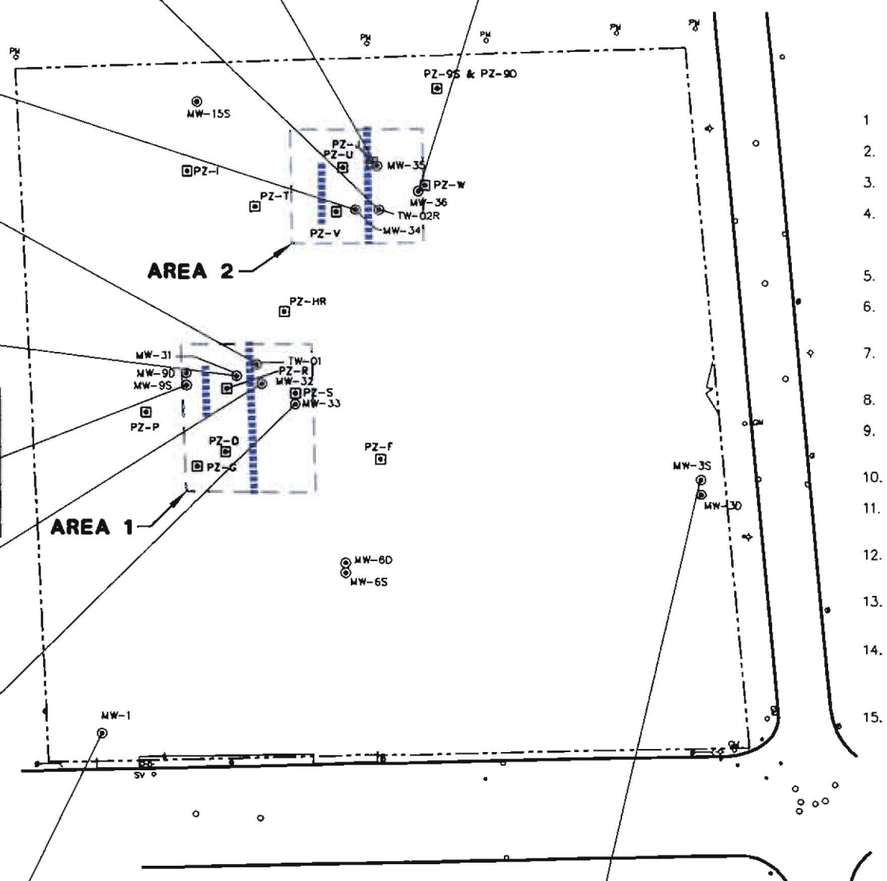
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	5 J	<10 J	45 J	17 J	21	<18	11 J	88
Benzene	<10	<10	2 J	<10	4 J	<20	5 J	3 J	4 J	13
Toluene	<10	<10	0.7 J	<10	1 J	<20	<10	<5	<10	<5
Aniline	9 J	120	150	51	540 D	1,300 D	1,900 D	2,780 D	290 D	2,000
N,N-dimethylaniline	6 J	6 J	8 J	7 J	23	16	12	21	3 J	35 J
Methylene Chloride	<10	<10	5 J	11	330 DJ	370 B	<18	18	4 J	2,800 D

MW-1

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

MW-3S

Date	3/88	1/89	11/89	11/91	8/95	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<10,000	<10,000	2,900	<1,000	<10	<10	<10 J	<10 J	<10	<10	<12	<25	<12
Benzene	<1	<100	<100	10	<5	<10	1 J	<10	1 J	<10	3 J	<5	<10	<5
Toluene	<1	120	<100	10	<5	<10	0.7 J	<10	2 J	<10	8 J	<5	<10	<5
Ethylbenzene	<1	<100	<100	4	<5	<10	<10	<10	<10 J	<10	1 J	<5	<10	<5
Xylene	<1	<100	<100	31	<5	<10	<10	<10	<10 J	<10	2 J	<10	<20	<10
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Trichloroethene	50	1,100	100	<10	<5	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Aniline	<10	<11	<52	790	15	<10	9 J	<10	2 J	<10	690 D (69*)	17 J	<5	<5
N,N-dimethylaniline	<10	5,570	440	170	2 J	<10	<10	<10	1 J	<10	4 J	<5	R	<5
Methylene Chloride	110	4,700	2,700	<10	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5



LEGEND:

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

SAMPLE IDENTIFICATION

MW-35

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

CONCENTRATION (ppb)

NOTES:

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

0 100' 200'

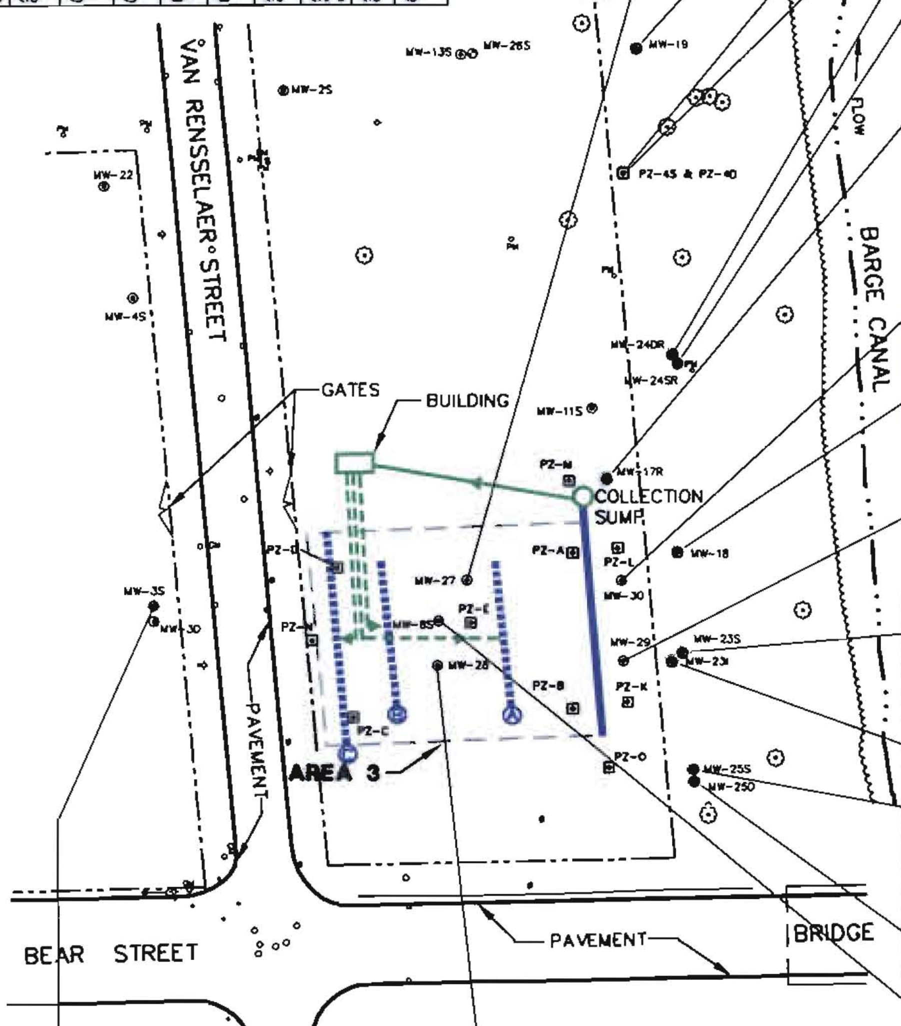
GRAPHIC SCALE

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

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

ARCADIS

FIGURE 1



MW-27

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	23	<10 J	<10 J	<10 J	<10	<10	<18	9 J	<12
Benzene	3 J	4 J	6 J	4 J	5 J	5 J	7	3 J	8
Toluene	4 J	2 J	<10	<10	<10	<10	11	<10	11
Ethylbenzene	<10	3 J	8 J	3 J	5 J	2 J	12	<10	23
Xylene	3 J	8 J	2 J	1 J	2 J	<10	26	<20	51
Aniline	340 DJ	740 D	110 D	16 J	260 D	26	176,000 DJ	2,700 D	15,000 DJ
N,N-dimethylaniline	<10	<10	1 J	2 J	2 J	<10	19 J	100 J	11
Methylene Chloride	<10	<10	<10	1 J	<10	<10	<5	60 JN	43
Trichloroethene	<10	<10	<10	<10 J	<10	<10	<5	4 J	<5

PZ-5S

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

PZ-5D

Date	11/89	12/94	2/96	2/97	9/98	7/99	9/00	9/01	10/02
Aniline	<10	<5	<5	<5	<5	<10	<10 J	<10	<5^

MW-19

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

PZ-4S

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

PZ-4D

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

MW-24DR

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

MW-24SR

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

MW-17R

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

MW-30

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

MW-18

Date	11/89	11/90	11/91	11/92	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Methanol	<1,000	<1,000	<1,000	<1,000	<200	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000 J	<1,000	<1,000	720 J	<1,000	280 J
Aniline	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10 J	<10	<10	280 D (<5)**	<5^	<5
N,N-Dimethylaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	200 D (<5)**	<5^	<5
Acetone	<100	<100	<100	<100	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<10	<10	6 J	<12

MW-29

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

MW-23S

Date	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	6/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<1,000	<1,000	<10	<10	12	<10	<10	<10 J	<10 J	<10	<10 J	<10	<10	<10	<25 J	<62
Aniline	<5	<5	<5	7	11	92	56	<10	<10 J	<10	<5	<10 J	<10	<10	<5	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	7 J	10	2 J	<10	2 J	2 J	<10	<10	<5	<5^	<5
Methanol	<200	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000 J	<1000 J	<1,000	<1,000	<1,000	<1,000	380 J

MW-23I

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

MW-25S

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

MW-25D

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

MW-8S

Date	1/89	11/89	11/91	8/95	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<1,000,000	470,000	<1,000,000	<1,000	<10,000 J	<20,000	10 J	<100,000	<50,000 J	<50,000	<400	2,100	120 J	<12
Benzene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	22 J	<100,000	<50,000 J	<50,000	<400	50 J	23	20 J
Toluene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	240 J	<100,000	<50,000 J	<50,000	430	410	310	600 D
Ethylbenzene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	58 J	<100,000	<50,000 J	<50,000	170 J	100 J	73	81
Xylene	<10,000	<10,000	<30,000	<250,000 D	<10,000	<20,000	220 J	<100,000	<50,000 J	<50,000	880	400	267	300
Methanol	430,000	300,000	150,000	22,000	7,900	18,000 JN	17,000	30,000 J	14,000 J	53,000	8,900 J	<1,000	<1,000	<1,000
Trichloroethene	<10,000	<10,000	<10,000	60,000 JD	3,300 J	11,000 J	11,000 J	<100,000	9,200 J	11,000 J	18,000 JD	9,800 J	3,100	6,700 D
Aniline	2,900	8,500	8,000	<25,000 D	1,200 J	30,000 D	24,000	62,000	42,000 J	90,000 D	21,000	793,000 D	80,000	78,000 D
N,N-dimethylaniline	24,000	52,000	33,000	380,000 D	28,000 D	120,000 D	77,000	270,000 D	59,000	120,000 D	29,000	773,000 D	21,000 J	29 J
Methylene Chloride	3,200,000	2,800,000	1,600,000	7,700,000 D	140,000	650,000 DB	450,000 D	1,300,000	540,000 BJ	990,000	440,000 BD	880,000 D	320,000	910,000 D

MW-28

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<5,000	<500	<10,000	<1,000 J	<400	<400	8	8 J	4 J
Toluene	<5,000	<500	<10,000	<1,000 J	<400	<400	6	6 J	2 J
Ethylbenzene	<5,000	<500	<10,000	<1,000 J	<400	<400	9	11	2 J
Xylene	<5,000	<500	<10,000	<1,000 J	<400	<400	10 J	12 J	8 J
Methanol	2,200	<1,000	<1,000 J	<1,000 J	<1,000	<1,000 J	<1,000	<1,000	<1,000
Aniline	546 D	1,100 D	1,300 D	540 DJ	3,200 D	1,000 D	33,400 D	2,700 D	1,000 DJ
N,N-dimethylaniline	54	40	30	<10	7 J	<10	57	R	3 J
Methylene Chloride	64,000 J	39,000 D	130,000 J	8,100 BJ	5,900 B	4,700 B	4,600 D	<10	52
Acetone	<5,000 J	<500 J	<10,000	<1,000 J	<400	<400	<49	14 J	13

MW-3S

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

LEGEND:

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

SAMPLE IDENTIFICATION

MW-25

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

CONCENTRATION (ppb)

NOTES:

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

0 120' 240'

GRAPHIC SCALE

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

GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREA 3

ARCADIS

FIGURE 2

TW-02R

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

TW-02RR

Date	11/04	6/05	11/05	6/06
Acetone	18 J	7.2 J	26 J	16
Benzene	4 J	3.6	6	4.4
Toluene	8 J	2.1 J	4.1	1.3 J
Ethylbenzene	4 J	3.6 J	3.6	2.7 J
Xylene	16 J	9.6	11	8.7
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<10	0.3 J	<0.4	<1.0
Aniline	7,100 D	8,400	14,000	10,000
N,N-dimethylaniline	<5.0	<50	<110 J	<100
Methylene Chloride	<10	<3.0	<0.5	<3.0

MW-35

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

MW-36

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	580 D	22 J	13 J	24 J	77 J	25
Benzene	<5.0	<10 J	<10	2.1	3.6	1.6
Toluene	<5.0	<10 J	<10	<5.0	2.0 J	0.7 J
Ethylbenzene	<5.0	<10 J	<10	<4.0	0.6 J	<4.0
Xylene	<10	<20 J	<20	1.0 J	2.8 J	1.2 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10 J	<10	<1.0	<1.0	<1.0
Aniline	100	33	22	1,200	1,600	76
N,N-dimethylaniline	<5.0	7	<5.0	<5.4	<10 J	1.9
Methylene Chloride	<5.0	<10 J	<10	<3.0	<3.0	<3.0

MW-34

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

TW-01

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

MW-31

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	1,200 D	15 J	<25	<5.0 J	<1.3 J	<5.0 J
Benzene	13	12	9 J	11	6.7	11 J
Toluene	<5.0	<10	<10	<5.0	<0.4	0.8 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<5.0	<20	<20	1.3 J	0.6	1.7 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	88	3 J	<5.0	3.2	16	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	2.7	<1.0 J	2.4 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	3.4

MW-9S

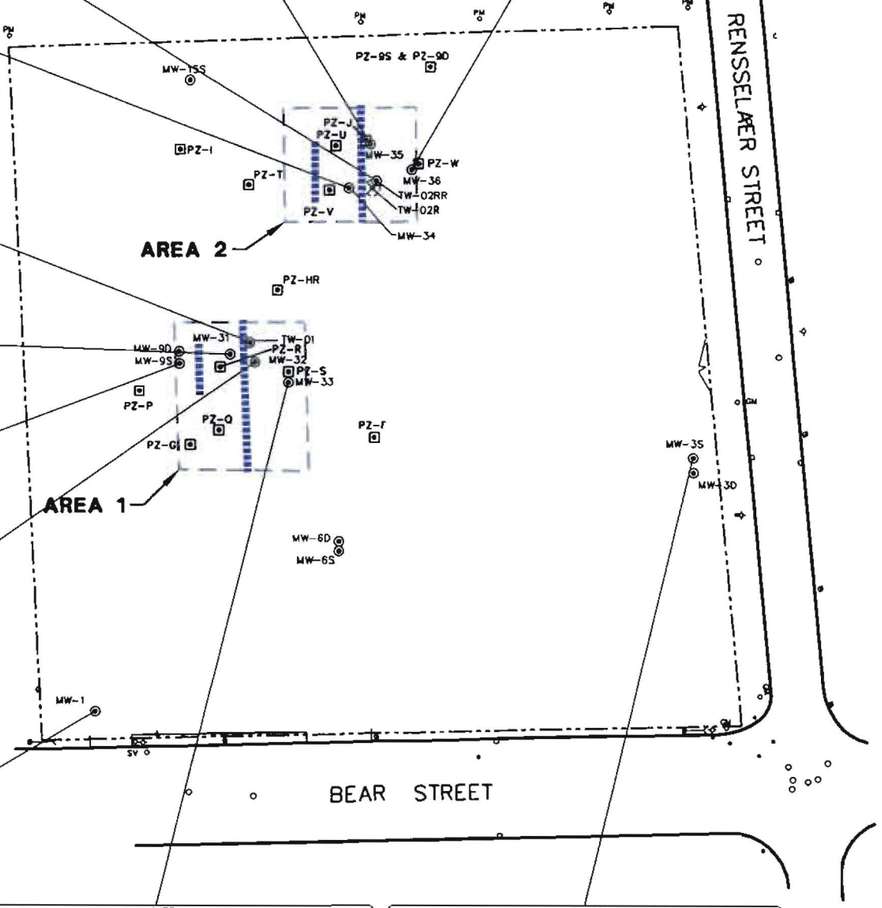
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	14 J	<25	44 J	<1.3 J	<5.0 J
Benzene	2 J	6 J	4 J	1.9	3.5	1.1 J
Toluene	<5	2 J	2 J	3.2 J	3.8	2.3 J
Ethylbenzene	5	8 J	9 J	24	11	25 J
Xylene	19	19 J	30 J	84	33	60 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	1 J	<5.0	<5.0	2.6	1.4	<1.1 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	1.9	6.1 J	3.8 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0 J

MW-32

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

MW-1

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



MW-33

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	22	9 J	–	<5.0 J	<5.0 J	<5.0 J
Benzene	2 J	12 J	–	11	16	6.7 J
Toluene	<5.0	<10 J	–	1.0 J	1.8 J	0.7 J
Ethylbenzene	<5.0	<10 J	–	<4.0	<4.0	<4.0 J
Xylene	<10	<20 J	–	<5.0	<5.0	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10 J	–	<1.0	<1.0	<1.0 J
Aniline	1,900 D	2,700 D	2,700 D	1,800	3,500	370 J
N,N-dimethylaniline	<6.0	5 J	5 J	<10	<25 J	3.5 J
Methylene Chloride	<5.0	<10 J	–	<3.0	<3.0	<3.0 J

MW-3S

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

LEGEND:

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

SAMPLE IDENTIFICATION

MW-35

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

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

NOTES:

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

0 100' 200'

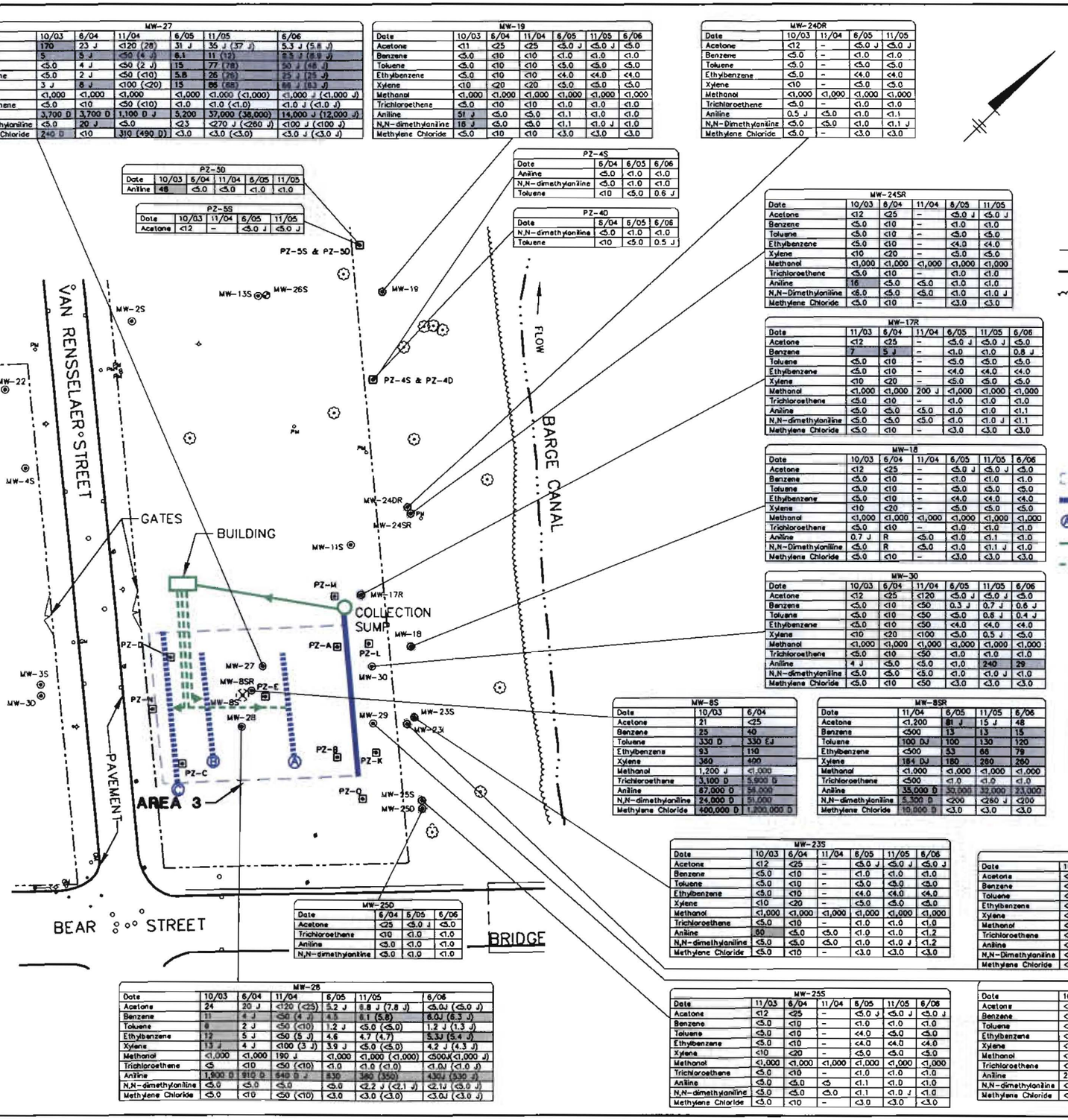
GRAPHIC SCALE

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

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

ARCADIS

FIGURE 3



MW-27

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	170	23 J	<120 (28)	31 J	35 J (37 J)	5.3 J (5.8 J)
Benzene	5	5 J	<50 (4 J)	6.1	11 (12)	8.3 J (8.9 J)
Toluene	<5.0	4 J	<50 (2 J)	15	77 (78)	50 J (46 J)
Ethylbenzene	<5.0	2 J	<50 (<10)	5.8	26 (26)	25 J (25 J)
Xylene	3 J	8 J	<100 (<20)	15	86 (88)	88 J (83 J)
Methanol	<1,000	<1,000	<1,000	<1,000 (<1,000)	<1,000 J (<1,000 J)	<1,000 J (<1,000 J)
Trichloroethene	<5.0	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0 J (<1.0 J)
Aniline	3,700 D	3,700 D	1,100 D J	5,200	37,000 (38,000)	14,000 J (12,000 J)
N,N-dimethylaniline	<5.0	20 J	<5.0	<3	<270 J (<260 J)	<100 J (<100 J)
Methylene Chloride	240 D	<10	310 (490 D)	<3.0	<3.0 (<3.0)	<3.0 J (<3.0 J)

MW-19

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<11	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	51 J	<5.0	<5.0	<1.1	<1.0	<1.0
N,N-dimethylaniline	18 J	<5.0	<5.0	<1.1	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

MW-24DR

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

PZ-5D

Date	10/03	6/04	11/04	6/05	11/05
Aniline	48	<5.0	<5.0	<1.0	<1.0

PZ-5S

Date	10/03	11/04	6/05	11/05
Acetone	<12	-	<5.0 J	<5.0 J

PZ-4S

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

PZ-4D

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

MW-24SR

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

MW-17R

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

MW-18

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

MW-30

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	<120	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<50	0.3 J	0.7 J	0.6 J
Toluene	<5.0	<10	<50	<5.0	0.8 J	0.4 J
Ethylbenzene	<5.0	<10	<50	<4.0	<4.0	<4.0
Xylene	<10	<20	<100	<5.0	0.5 J	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<50	<1.0	<1.0	<1.0
Aniline	4 J	<5.0	<5.0	<1.0	240	29
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<50	<3.0	<3.0	<3.0

MW-8S

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

MW-8SR

Date	11/04	6/05	11/05	6/06
Acetone	<1,200	81 J	15 J	48
Benzene	<500	13	13	15
Toluene	100 DJ	100	130	120
Ethylbenzene	<500	53	66	79
Xylene	184 DJ	180	280	260
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<500	<1.0	<1.0	<1.0
Aniline	35,000 D	30,000	32,000	33,000
N,N-dimethylaniline	5,300 D	<200	<260 J	<200
Methylene Chloride	10,000 D	<3.0	<3.0	<3.0

MW-23S

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	-	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	-	<1.0	<1.0	<1.0
Toluene	<5.0	<10	-	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	-	<4.0	<4.0	<4.0
Xylene	<10	<20	-	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	-	<1.0	<1.0	<1.0
Aniline	80	<5.0	<5.0	<1.0	<1.0	<1.2
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.2
Methylene Chloride	<5.0	<10	-	<3.0	<3.0	<3.0

MW-23I

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	-	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	-	<1.0	<1.0	<1.0
Toluene	<5.0	<10	-	<5.0	<5.0	0.6 J
Ethylbenzene	<5.0	<10	-	<4.0	<4.0	<4.0
Xylene	<10	<20	-	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	-	<1.0	<1.0	<1.0
Aniline	<5.0	1 J	<5.0	<1.0	<1.0	<1.2
N,N-Dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	-	<3.0	<3.0	<3.0

MW-25D

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

MW-25S

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

MW-29

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

MW-28

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	24	20 J	<120 (<25)	5.2 J	8.8 J (7.8 J)	<5.0J (<5.0 J)
Benzene	11	4 J	<50 (4 J)	4.5	6.1 (5.8)	6.0J (6.3 J)
Toluene	8	2 J	<50 (<10)	1.2 J	<5.0 (<5.0)	1.2 J (1.3 J)
Ethylbenzene	12	5 J	<50 (5 J)	4.6	4.7 (4.7)	5.3J (5.4 J)
Xylene	13 J	4 J	<100 (3 J)	3.9 J	<5.0 (<5.0)	4.2 J (4.3 J)
Methanol	<1,000	<1,000	190 J	<1,000	<1,000 (<1,000)	<500J (<1,000 J)
Trichloroethene	<5	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0J (<1.0 J)
Aniline	1,900 D	910 D	540 D J	830	340 (350)	430J (330 J)
N,N-dimethylaniline	<5.0	<5.0	<5.0	<5.0	<2.2 J (<2.1 J)	<2.1J (<5.0 J)
Methylene Chloride	<5.0	<10	<50 (<10)	<3.0	<3.0 (<3.0)	<3.0J (<3.0 J)

SAMPLE IDENTIFICATION
CONCENTRATION (ppb)

MW-8S

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

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

LEGEND:

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

NOTES:

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

0 100' 200'
GRAPHIC SCALE

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

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

ARCADIS

FIGURE 4

ARCADIS

Attachment B

Validated Analytical Laboratory Reports

ARCADIS
Infrastructure, environment, facilities

Imagine the result

McKesson Bear Street

Data Usability Summary Report

SYRACUSE, NEW YORK

Semivolatile Analyses

SDG# 460-2867

Analyses Performed By:
TestAmerica Edison
Edison, New Jersey

Report: #10438R
Project: B00260030.0000.00010

SUMMARY

The following is an assessment of the data package for Sample Delivery Group (SDG) #460-2867 for sampling from the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
DUP-1	460-2867-1	WATER	6/15/2009	MW-27		X			
MW-85R	460-2867-2	WATER	6/15/2009			X			
MW-27	460-2867-3	WATER	6/15/2009			X			
TW-02RR	460-2867-4	WATER	6/16/2009			X			
MW-36	460-2867-5	WATER	6/16/2009			X			

Note:

1. Matrix spike/matrix spike duplicate analysis was performed on sample location MW-27.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  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.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
DUP-1 MW-85R MW-27 TW-02RR	Nitrobenzene-d5	D
	2-Fluorobiphenyl	D
	Terphenyl-d14	D

UL Upper control limit
LL Lower control limit
D Diluted
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	J[†]
	Detect	

† A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
MW-27	n,n-Dimethylaniline	<10%	<10%

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-27/DUP-1	Aniline	7400	10000	29.8%
	n,n-Dimethylaniline	50	100	66.6%

AC Acceptable
NC Not compliant
ND Not detected

The calculated RPDs between the parent sample and field duplicate were unacceptable for n,n-Dimethylaniline. Sample results for the listed compound have been qualified as estimated in associated sample location MW-27 and DUP-1.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs; SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – percent relative difference, %R - percent recovery, RPD - relative percent difference, %D – difference

VALIDATION PERFORMED BY: Melissa Hall

SIGNATURE: Melissa Hall

DATE: July 13, 2009

PEER REVIEW BY: Dennis Capria

DATE: July 16, 2009

CORRECTED SAMPLE ANALYSIS DATA SHEETS AND COCs

Client: ARCADIS

Job Number: 460-2867-1

Client Sample ID: **DUP-1**

Lab Sample ID: 460-2867-1
Client Matrix: Water

Date Sampled: 06/15/2009 0000
Date Received: 06/17/2009 1035

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 460-10127	Instrument ID:	BNAMS2
Preparation:	3510C	Prep Batch: 460-9495	Lab File ID:	s43461.d
Dilution:	100		Initial Weight/Volume:	1000 mL
Date Analyzed:	06/24/2009 1135		Final Weight/Volume:	2 mL
Date Prepared:	06/18/2009 0828		Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10000 J		170	500
n,n'-Dimethylaniline	100 J	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	53 - 110
Nitrobenzene-d5	0	D	49 - 114
Terphenyl-d14	0	D	46 - 129

Client: ARCADIS

Job Number: 460-2867-1

Client Sample ID: **MW-85R**

Lab Sample ID: 460-2867-2

Client Matrix: Water

Date Sampled: 06/15/2009 1045

Date Received: 06/17/2009 1035

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 460-10127		Instrument ID:	BNAMS2
Preparation:	3510C	Prep Batch: 460-9495		Lab File ID:	s43462.d
Dilution:	50			Initial Weight/Volume:	1000 mL
Date Analyzed:	06/24/2009 1209			Final Weight/Volume:	2 mL
Date Prepared:	06/18/2009 0828			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	7000 J		87	250
n,n'-Dimethylaniline	50 J	U	14	50

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	53 - 110
Nitrobenzene-d5	0	D	49 - 114
Terphenyl-d14	0	D	46 - 129

Client: ARCADIS

Job Number: 460-2867-1

Client Sample ID: MW-27

Lab Sample ID: 460-2867-3

Client Matrix: Water

Date Sampled: 06/15/2009 1250

Date Received: 06/17/2009 1035

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 460-9983		Instrument ID:	BNAMS2
Preparation:	3510C	Prep Batch: 460-9495		Lab File ID:	s43441.d
Dilution:	50			Initial Weight/Volume:	1000 mL
Date Analyzed:	06/23/2009 1614			Final Weight/Volume:	2 mL
Date Prepared:	06/18/2009 0828			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	7400 J		87	250
n,n'-Dimethyleniline	50 J	U	14	50

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	53 - 110
Nitrobenzene-d5	0	D	49 - 114
Terphenyl-d14	0	D	46 - 129

Client: ARCADIS

Job Number: 460-2867-1

Client Sample ID: TW-02RR

Lab Sample ID: 460-2867-4
Client Matrix: Water

Date Sampled: 06/16/2009 0940
Date Received: 06/17/2009 1035

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 460-9983	Instrument ID: BNAMS2
Preparation:	3510C	Prep Batch: 460-9495	Lab File ID: s43446.d
Dilution:	20		Initial Weight/Volume: 1000 mL
Date Analyzed:	06/23/2009 1905		Final Weight/Volume: 2 mL
Date Prepared:	06/18/2009 0828		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	2800 J		35	100
n,n'-Dimethylaniline	20 J	U	5.4	20

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	53 - 110
Nitrobenzene-d5	0	D	49 - 114
Terphenyl-d14	0	D	46 - 129

Client: ARCADIS

Job Number: 460-2867-1

Client Sample ID: **MW-36**

Lab Sample ID: 460-2867-5
Client Matrix: Water

Date Sampled: 06/16/2009 1050
Date Received: 06/17/2009 1035

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 460-9983	Instrument ID: BNAMS2
Preparation:	3510C	Prep Batch: 460-9495	Lab File ID: s43447.d
Dilution:	5.0		Initial Weight/Volume: 1000 mL
Date Analyzed:	06/23/2009 1939		Final Weight/Volume: 2 mL
Date Prepared:	06/18/2009 0828		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	460		8.7	25
n,n'-Dimethylaniline	5.0	U	1.4	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	97		53 - 110
Nitrobenzene-d5	90		49 - 114
Terphenyl-d14	72		46 - 129

Chain of Custody Record

2°/3° IR 98

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4600350??

07/08/2009

TAL-4142 (0907)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMAN	6/16/09	388100
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page**
6723 TOWPATH RD.	315-671-9229 / FAX 315-446-8053	EDISON	Page 1 of 1
City / State / Zip Code	**Site Contact**	**Lab Contact**	
SYRACUSE / NY / 13214	Nathan Smith	T. White	
Project Name and Location (State)	**Carrier/Waybill Number**		
MCKESSON – BEAR ST. SYRACUSE N.Y.			
Contract/Purchase Order/Quote No.			
60026003.0000.00010			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Aniline	4,n-dimethylaniline	MS/MSD														Special Instructions/ Conditions of Receipt
DUP-1	6/16/09	—		X			2						X	X															1
MW-85R	6/16/09	1045		X			2						X	X															2
MW-27	6/16/09	1250		X			6						X	X	X														3
TW-02RL	6/16/09	0940		X			2						X	X															4
MW-36	6/16/09	1050		X			2						X	X															5

QUESTIONS PLEASE CONTACT PROJECT MANAGER LISTED ABOVE.

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Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Nathan P. Smith	6/16/09	1555	1. Received By: Syr	6/16/09	1555
2. Relinquished By: R. English, SyR	6/16/09	18:00	2. Received By: UA 6/17	6/17/09	
3. Relinquished By: Fedex	6/17/09	1035	3. Received By: FedEx	6/17/09	1035

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
460-2867	6/15/2009	ASP 2005	DUP-1	Water	--	No	--	--	--	SVOC – surrogate, field duplicate RPD
460-2867	6/15/2009	ASP 2005	MW-85R	Water	--	No	--	--	--	SVOC – surrogate
460-2867	6/152009	ASP 2005	MW-27	Water	--	No	--	--	--	SVOC – surrogate, MS/MSD, field duplicate RPD
460-2867	6/16/2009	ASP 2005	TW-02RR	Water	--	No	--	--	--	SVOC – surrogate
460-2867	6/16/2009	ASP 2005	MW-36	Water	--	Yes	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

ARCADIS
Infrastructure, environment, facilities

Imagine the result

McKesson Bear Street

Data Usability Summary Report

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG# G310

Analyses Performed By:
TestAmerica Edison
Edison, New Jersey

Report: #10168R
Project: B00260030.0000.00190

SUMMARY

The following is an assessment of the data package for Sample Delivery Group (SDG) #G310 for sampling from the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-8SR	992800	WATER	3/24/2009		X	X			X
MW-27	992801	WATER	3/24/2009		X	X			X
MW-28	992802	WATER	3/24/2009		X	X			X
MW-30	992803	WATER	3/24/2009		X	X			X
MW-29	992804	WATER	3/24/2009		X	X			X
MW-18	992805	WATER	3/24/2009		X	X			X
MW-17R	992806	WATER	3/24/2009		X	X			X
DUP-01	992807	WATER	3/24/2009	MW-8SR	X	X			X
MW-19	992808	WATER	3/25/2009		X	X			X
PZ-4S	992809	WATER	3/25/2009		X	X			X
PZ-4D	992810	WATER	3/25/2009		X	X			X
MW-25S	992811	WATER	3/25/2009		X	X			X
MW-25D	992812	WATER	3/25/2009		X	X			X
MW-23I	992813	WATER	3/25/2009		X	X			X
MW-23S	992814	WATER	3/25/2009		X	X			X
TB	992815	WATER	3/25/2009		X				

Note:

1. Miscellaneous analysis include methanol.
2. Matrix spike/matrix spike duplicate analysis was performed on sample location MW-8SR.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260, 8270 and 8015 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  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.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
MW-27 DUP-01	CCV %D	Acetone	-20.01

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

1 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketenes, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/DUP-01	Acetone	6.5 J	5.8 J	AC
	Benzene	6.8	6.8	0.0%
	Toluene	10	10	0.0%
	Ethylbenzene	66	63	4.6%
	Xylene (Total)	140	140	0.0%

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
MW-27	Nitrobenzene-d5	D
	2-Fluorobiphenyl	D
	Terphenyl-d14	D
MW-23S	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	<LL but >10%

UL Upper control limit
LL Lower control limit
D Diluted
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	J[1]
	Detect	

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD performed on sample location MW-8SR did not include any target compounds. No qualification of the data based on MS/MSD analysis was performed.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/DUP-01	Aniline	2200	1800	20.0%

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs; SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)		X		X	X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – percent relative difference, %R - percent recovery, RPD - relative percent difference, %D – difference

METHANOL (GC/FID) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Methanol by SW846 8015	Water	7 days from collection to analysis	Cooled @ 4 °C

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration verification standard recoveries were within the control limit.

4. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. Methanol analysis requires the surrogate compound to exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable surrogate recoveries.

5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit a RPD within the laboratory established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between MS/MSD recoveries.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

7. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/DUP-01	Methanol	ND	ND	AC

ND = Not detected.
AC = The field duplicate is acceptable when the difference between parent sample and field duplicate sample is less than two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The RPDs between the parent sample and field duplicate were acceptable.

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METHANOL

VOCs; SW-846 8015	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Transcription/calculation errors present		X		X	
D. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

VALIDATION PERFORMED BY: Melissa Hall

SIGNATURE: Melissa Hall

DATE: May 12, 2009

PEER REVIEW BY: Dennis Capria

DATE: May 27, 2009

CORRECTED SAMPLE ANALYSIS DATA SHEETS AND COCs

Client ID: MW-8SR
Site: McKesson Bear St

Lab Sample No: 992800
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26041.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	6.5J	10
Trichloroethene	ND	1.0
Benzene	6.8	1.0
Toluene	10	1.0
Ethylbenzene	66	1.0
Xylene (Total)	140	3.0

Client ID: MW-27
Site: McKesson Bear St

Lab Sample No: 992801
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 04/07/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26087.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	14 J	10
Trichloroethene	ND	1.0
Benzene	8.7	1.0
Toluene	9.4	1.0
Ethylbenzene	36	1.0
Xylene (Total)	88	3.0

Client ID: MW-28
Site: McKesson Bear St

Lab Sample No: 992802
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26027.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	3.5	1.0
Toluene	0.3J	1.0
Ethylbenzene	0.8J	1.0
Xylene (Total)	1.1J	3.0

Client ID: MW-30
Site: McKesson Bear St

Lab Sample No: 992803
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26028.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	0.8J	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: MW-29
Site: McKesson Bear St

Lab Sample No: 992804
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26029.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: **PZ-4S**
Site: McKesson Bear St

Lab Sample No: **992809**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26033.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: PZ-4D
Site: McKesson Bear St

Lab Sample No: 992810
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26034.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: MW-25S
Site: McKesson Bear St

Lab Sample No: 992811
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26035.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: MW-25D
Site: McKesson Bear St

Lab Sample No: 992812
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26036.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: TB
Site: McKesson Bear St

Lab Sample No: 992815
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 04/04/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26026.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: **MW-8SR**
Site: McKesson Bear St

Lab Sample No: **992800**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41542.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 25.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	2200	120
N,N-Dimethylaniline	ND	12

Client ID: **MW-27**
Site: McKesson Bear St

Lab Sample No: **992801**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41541.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 100.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	8200 J	500
N,N-Dimethylaniline	ND J	50

Client ID: **MW-28**
Site: McKesson Bear St

Lab Sample No: **992802**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41519.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	18	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-30**
Site: McKesson Bear St

Lab Sample No: **992803**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41520.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-29**
Site: McKesson Bear St

Lab Sample No: **992804**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41532.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-18**
Site: McKesson Bear St

Lab Sample No: **992805**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41533.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-17R**
Site: McKesson Bear St

Lab Sample No: **992806**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41534.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **DUP-01**
Site: McKesson Bear St

Lab Sample No: **992807**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41540.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 25.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: uq/l	Quantitation Limit Units: uq/l
Aniline	1800	120
N,N-Dimethylaniline	ND	12

Client ID: **MW-19**
Site: McKesson Bear St

Lab Sample No: **992808**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41535.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: PZ-4S
Site: McKesson Bear St

Lab Sample No: 992809
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41536.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **PZ-4D**
Site: McKesson Bear St

Lab Sample No: **992810**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41537.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: uq/l	Quantitation Limit Units: uq/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-25S**
Site: McKesson Bear St

Lab Sample No: **992811**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41538.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-25D**
Site: McKesson Bear St

Lab Sample No: **992812**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41539.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-23I**
Site: McKesson Bear St

Lab Sample No: **992813**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41545.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-23S**
Site: McKesson Bear St

Lab Sample No: **992814**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Extracted: 03/30/09
Date Analyzed: 04/07/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41546.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-8SR**
Site: McKesson Bear St

Lab Sample No: **992800**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3597.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-27**
Site: McKesson Bear St

Lab Sample No: **992801**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3600.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-28**
Site: McKesson Bear St

Lab Sample No: **992802**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3601.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	851	500

Client ID: **MW-30**
Site: McKesson Bear St

Lab Sample No: **992803**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3602.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-29**
Site: McKesson Bear St

Lab Sample No: **992804**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3603.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-18**
Site: McKesson Bear St

Lab Sample No: **992805**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3604.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-17R**
Site: McKesson Bear St

Lab Sample No: **992806**
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3607.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: DUP-01
Site: McKesson Bear St

Lab Sample No: 992807
Lab Job No: G310

Date Sampled: 03/24/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3608.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-19**
Site: McKesson Bear St

Lab Sample No: **992808**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3609.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **PZ-4S**
Site: McKesson Bear St

Lab Sample No: **992809**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3610.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: PZ-4D
Site: McKesson Bear St

Lab Sample No: 992810
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3611.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-25S**
Site: McKesson Bear St

Lab Sample No: **992811**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3612.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-25D**
Site: McKesson Bear St

Lab Sample No: **992812**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3613.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-23I**
Site: McKesson Bear St

Lab Sample No: **992813**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3614.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-23S**
Site: McKesson Bear St

Lab Sample No: **992814**
Lab Job No: G310

Date Sampled: 03/25/09
Date Received: 03/26/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3615.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

G310

Chain of Custody Record

#1268

3,2,3,3 Temperature on Receipt ____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

G310

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMAN	3/25/09	121760
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
6723 TOWPATH Rd	315-446-9120		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
SYRACUSE NY 13214	Nate Smith	Janae McLeod	
Project Name and Location (State)	**Carrier/Waybill Number**		
B002600 3.0000.00010			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8015B	6260B	8270C	MS/MSD	Special Instructions/ Conditions of Receipt
MW-BSR	3/24/09	1000		X			15			9			X	X	X	X	992800
MW-27	3/24/09	1140					5			3							801
MW-28	3/24/09	1230					5			3							802
MW-30	3/24/09	1330					5			3							803
MW-29	3/24/09	1450					5			3							804
MW-18	3/24/09	1600					5			3							805
MW-17R	3/24/09	1710					5			3							806
DUP-01	3/24/09	—					5			3							807
MW-19	3/25/09	1035					5			3							808
PZ-4S	3/25/09	1230					5			3							809
PZ-4D	3/25/09	1340					5			3							810
MW-25S	3/25/09	1200					5			3							811

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Nathan P. Smith	3/25/09	1700	[illegible]	03/25/09	17:00
2. Relinquished By	**Date**	**Time**	**2. Received By**	**Date**	**Time**
[illegible]	03/25/09	18:00	[illegible]	3/26/09	10:30
3. Relinquished By	**Date**	**Time**	**3. Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

G310

Chain of Custody Record

#1268
3.2.3.3°

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

G310

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMAN	3/25/09	121761
Address 6723 TOWPATH Rd	**Telephone Number (Area Code)/Fax Number** 315 446 9120	**Lab Number**	**Page** 2 of 2
City SYRACUSE / **State** NY / **Zip Code** 13214	**Site Contact** Nate Smith	**Lab Contact** Janae McCloud	
Project Name and Location (State) McKesson Bear St. Syracuse NY	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No. 30026003.0000.00010			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Boi5B	B260R	B272C	MS/MSD	Special Instructions/ Conditions of Receipt
MW-25D	3/25/09	1020		X			5			3			X	X	X		812
MW-23I	3/25/09	1410		X			5			3			X	X	X		813
MW-23S	3/25/09	1605		X			5			3			X	X	X		814
T.B.																	815
Can 3/27/09										3				X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Nathan P. Smith	3/25/09	17.00	1. Received By: K. Craig/LSG/Syr	03/25/09	17.00
2. Relinquished By: K. Craig/LSG	03/25/09	18:30	2. Received By: [signature] / S.M	3/26/09	10:30
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

NYSDEC Sample Identification and Analysis Summary Sheets

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
992800	WATER	3/24/09	3/26/09		4/4/09
992800MS	WATER	3/24/09	3/26/09		4/4/09
992800SD	WATER	3/24/09	3/26/09		4/4/09
992801	WATER	3/24/09	3/26/09		4/7/09
992802	WATER	3/24/09	3/26/09		4/4/09
992803	WATER	3/24/09	3/26/09		4/4/09
992804	WATER	3/24/09	3/26/09		4/4/09
992805	WATER	3/24/09	3/26/09		4/4/09
992806	WATER	3/24/09	3/26/09		4/4/09
992807	WATER	3/24/09	3/26/09		4/7/09
992808	WATER	3/25/09	3/26/09		4/4/09
992809	WATER	3/25/09	3/26/09		4/4/09
992810	WATER	3/25/09	3/26/09		4/4/09
992811	WATER	3/25/09	3/26/09		4/4/09
992812	WATER	3/25/09	3/26/09		4/4/09
992813	WATER	3/25/09	3/26/09		4/4/09
992814	WATER	3/25/09	3/26/09		4/4/09
992815	WATER	3/25/09	3/26/09		4/4/09

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
992800	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992800MS	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992800SD	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992801	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992802	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992803	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992804	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992805	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992806	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992807	WATER	3/24/09	3/26/09	3/30/09	4/7/09
992808	WATER	3/25/09	3/26/09	3/30/09	4/7/09
992809	WATER	3/25/09	3/26/09	3/30/09	4/7/09
992810	WATER	3/25/09	3/26/09	3/30/09	4/7/09
992811	WATER	3/25/09	3/26/09	3/30/09	4/7/09
992812	WATER	3/25/09	3/26/09	3/30/09	4/7/09
992813	WATER	3/25/09	3/26/09	3/30/09	4/7/09
992814	WATER	3/25/09	3/26/09	3/30/09	4/7/09

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
992800	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992800	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		25.00
992800MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992800MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		25.00
992800SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		25.00
992800SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992801	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
992801	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992802	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992802	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992803	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992803	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992804	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992804	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992805	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992805	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992806	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992806	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992807	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		25.00
992807	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992808	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992808	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992809	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992809	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992810	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992810	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992811	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992811	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992812	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992812	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
992813	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992813	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
992814	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
992814	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00

10/95

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
G310	3/24/2009	ASP 2005	MW-8SR	Water	Yes	Yes	--	--	Yes	
G310	3/24/2009	ASP 2005	MW-27	Water	No	No	--	--	Yes	VOC – ccal SVOC - surrogate
G310	3/24/2009	ASP 2005	MW-28	Water	Yes	Yes	--	--	Yes	
G310	3/24/2009	ASP 2005	MW-30	Water	Yes	Yes	--	--	Yes	
G310	3/24/2009	ASP 2005	MW-29	Water	Yes	Yes	--	--	Yes	
G310	3/24/2009	ASP 2005	MW-18	Water	Yes	Yes	--	--	Yes	
G310	3/24/2009	ASP 2005	MW-17R	Water	Yes	Yes	--	--	Yes	
G310	3/24/2009	ASP 2005	DUP-01	Water	No	Yes	--	--	Yes	VOC - ccal
G310	3/25/2009	ASP 2005	MW-19	Water	Yes	Yes	--	--	Yes	
G310	3/25/2009	ASP 2005	PZ-4S	Water	Yes	Yes	--	--	Yes	
G310	3/25/2009	ASP 2005	PZ-4D	Water	Yes	Yes	--	--	Yes	
G310	3/25/2009	ASP 2005	MW-25S	Water	No	Yes	--	--	Yes	
G310	3/25/2009	ASP 2005	MW-25D	Water	Yes	Yes	--	--	Yes	
G310	3/25/2009	ASP 2005	MW-23I	Water	Yes	Yes	--	--	Yes	
G310	3/25/2009	ASP 2005	MW-23S	Water	Yes	No	--	--	Yes	SVOC - surrogate
G310	3/25/2009	ASP 2005	TB	Water	Yes	Yes	--	--	Yes	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

ARCADIS
Infrastructure, environment, facilities

Imagine the result

McKesson Bear Street

Data Usability Summary Report

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG# G353

Analyses Performed By:
TestAmerica Edison
Edison, New Jersey

Report: #10169R
Project: B00260030.0000.00190

SUMMARY

The following is an assessment of the data package for Sample Delivery Group (SDG) #G353 for sampling from the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TW-01	993054	WATER	3/26/2009		X	X			X
MW-32	993055	WATER	3/26/2009		X	X			X
MW-33	993056	WATER	3/26/2009		X	X			X
MW-3S	993057	WATER	3/26/2009		X	X			X
MW-9S	993058	WATER	3/26/2009		X	X			X
MW-1	993059	WATER	3/26/2009		X	X			X
MW-31	993060	WATER	3/26/2009		X	X			X
TRIP_BLANKS	993061	WATER	3/26/2009		X	X			X

Note:

1. Miscellaneous analysis include methanol.
2. Matrix spike/matrix spike duplicate analysis was performed on sample location MW-9S for VOC analysis.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260, 8270 and 8015 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  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.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
TW-01 MW-32 MW-33 MW-3S MW-1 MW-31	CCV %D	Acetone	29.31%
Trip Blank MW-9S	CCV %D	Acetone	20.01%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

1 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketenes, 1,4-dioxane, etc.)

DATA VALIDATION CHECKLIST FOR VOCs

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (%D)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable surrogate recoveries.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD analysis was not performed on sample location from this data set.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

METHANOL (GC/FID) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Methanol by SW846 8015	Water	7 days from collection to analysis	Cooled @ 4 °C

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration verification standard recoveries were within the control limit.

4. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. Methanol analysis requires the surrogate compound to exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable surrogate recoveries.

5. **Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis**

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit a RPD within the laboratory established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample location from this data set.

6. **Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis**

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit a RPD within the laboratory established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPD between LCS/LCSD recoveries within the control limits.

7. **Field Duplicate Analysis**

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate was not included with this data set.

8. **System Performance and Overall Assessment**

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METHANOL

VOCs; SW-846 8015	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)					X
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (%D)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Transcription/calculation errors present		X		X	
D. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

VALIDATION PERFORMED BY: Melissa Hall

SIGNATURE: Melissa Hall

DATE: May 13, 2009

PEER REVIEW BY: Dennis Capria

DATE: May 27, 2009

CORRECTED SAMPLE ANALYSIS DATA SHEETS AND COCs

Client ID: **TW-01**
Site: McKesson Bear St.

Lab Sample No: **993054**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/06/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26052.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	1.9	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	0.6J	3.0

Client ID: MW-32
Site: McKesson Bear St.

Lab Sample No: 993055
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/06/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26053.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	0.5J	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: **MW-33**
Site: McKesson Bear St.

Lab Sample No: 993056
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/06/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26054.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	3.2	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: **MW-3S**
Site: McKesson Bear St.

Lab Sample No: **993057**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/06/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26055.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: MW-9S
Site: McKesson Bear St.

Lab Sample No: 993058
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/07/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26078.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	1.2	1.0
Toluene	2.5	1.0
Ethylbenzene	27	1.0
Xylene (Total)	65	3.0

Client ID: **MW-1**
Site: McKesson Bear St.

Lab Sample No: **993059**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/06/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26057.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: **MW-31**
Site: McKesson Bear St.

Lab Sample No: **993060**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/06/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26058.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	9.4J	10
Trichloroethene	ND	1.0
Benzene	8.3	1.0
Toluene	0.6J	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	0.8J	3.0

Client ID: **TRIP_BLANKS**
Site: McKesson Bear St.

Lab Sample No: 993061
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 04/07/09
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p26077.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: **TW-01**
Site: McKesson Bear St.

Lab Sample No: **993054**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41559.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-32**
Site: McKesson Bear St.

Lab Sample No: **993055**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41560.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-33**
Site: McKesson Bear St.

Lab Sample No: **993056**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41561.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	2.4	0.5

Client ID: **MW-3S**
Site: McKesson Bear St.

Lab Sample No: **993057**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41562.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-9S**
Site: McKesson Bear St.

Lab Sample No: **993058**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41563.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	4.2	0.5

Client ID: **MW-1**
Site: McKesson Bear St.

Lab Sample No: **993059**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41564.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: MW-31
Site: McKesson Bear St.

Lab Sample No: 993060
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41565.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	2.3	0.5

Client ID: **TW-01**
Site: McKesson Bear St.

Lab Sample No: **993054**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3620.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: uq/l	Quantitation Limit Units: uq/l
Methanol	22300	500

Client ID: **MW-32**
Site: McKesson Bear St.

Lab Sample No: **993055**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3621.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-33**
Site: McKesson Bear St.

Lab Sample No: **993056**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3622.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: MW-3S
Site: McKesson Bear St.

Lab Sample No: 993057
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3623.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-9S**
Site: McKesson Bear St.

Lab Sample No: **993058**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3624.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-1**
Site: McKesson Bear St.

Lab Sample No: **993059**
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3625.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: MW-31
Site: McKesson Bear St.

Lab Sample No: 993060
Lab Job No: G353

Date Sampled: 03/26/09
Date Received: 03/27/09
Date Analyzed: 03/30/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3626.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

G353

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMAN	3/25/09	121759
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
6723 TOWPATH RD	315-446-9120		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
SYRACUSE / NY / 13214	Nathan Smith	Jane McCuid	
Project Name and Location (State)	**Carrier/Waybill Number**		
McKesson Bell St, Syracuse NY			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8015B	8260B	8270C	Special Instructions/ Conditions of Receipt
TW-01	3/26/09	1450		X			5			3			X	X	X	G353 993054
MW-32		1325		X												055
MW-33		1320		X												056
MW-35		1005		X												057
MW-9S		1110		X												058
MW-1		0940		X												059
MW-31		1450		X												060
TRIP BLANKS	3/26/09															061

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Nathan P. Smith	3/26/09	1555
1. Received By: [signature]	3/26/09	1555
2. Relinquished By: R. English	03/26/09	18:00
2. Received By: fedex →		
3. Relinquished By: fedex →	3/27/09	1430
3. Received By: [signature]		

Comments

35° ± 9c

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Edison

50

NYSDEC Sample Identification and Analysis Summary Sheets

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
993054	WATER	3/26/09	3/27/09		4/6/09
993055	WATER	3/26/09	3/27/09		4/6/09
993056	WATER	3/26/09	3/27/09		4/6/09
993057	WATER	3/26/09	3/27/09		4/6/09
993058	WATER	3/26/09	3/27/09		4/7/09
993058MS	WATER	3/26/09	3/27/09		4/6/09
993058SD	WATER	3/26/09	3/27/09		4/6/09
993059	WATER	3/26/09	3/27/09		4/6/09
993060	WATER	3/26/09	3/27/09		4/6/09
993061	WATER	3/26/09	3/27/09		4/7/09

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
993054	WATER	3/26/09	3/27/09	4/1/09	4/8/09
993055	WATER	3/26/09	3/27/09	4/1/09	4/8/09
993056	WATER	3/26/09	3/27/09	4/1/09	4/8/09
993057	WATER	3/26/09	3/27/09	4/1/09	4/8/09
993058	WATER	3/26/09	3/27/09	4/1/09	4/8/09
993059	WATER	3/26/09	3/27/09	4/1/09	4/8/09
993060	WATER	3/26/09	3/27/09	4/1/09	4/8/09

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
993054	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993054	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993055	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993055	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993056	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993056	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993057	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993057	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993058	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993058	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993059	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993059	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993060	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993060	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00

10/95

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
G353	3/26/2009	ASP 2005	TW-01	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	MW-32	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	MW-33	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	MW-3S	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	MW-9S	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	MW-1	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	MW-31	Water	No	Yes	--	--	Yes	VOC – ccal
G353	3/26/2009	ASP 2005	TRIP_BLANKS	Water	No	Yes	--	--	Yes	VOC - ccal

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

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McKesson Bear Street

Data Usability Summary Report

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG# G388

Analyses Performed By:
TestAmerica Edison
Edison, New Jersey

Report: #10167R
Project: B0026003.0000.00190

SUMMARY

The following is an assessment of the data package for Sample Delivery Group (SDG) #G388 for sampling from the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-35	993306	WATER	3/27/2009		X	X			X
MW-34	993307	WATER	3/27/2009		X	X			X
MW-36	993308	WATER	3/27/2009		X	X			X
TW-02RR	993309	WATER	3/27/2009		X	X			X
Dup-02	993310	WATER	3/27/2009	TW-02RR	X	X			X
Trip_Blank	993311	WATER	3/27/2009		X				

Note:

1. Miscellaneous analysis include methanol.
2. Matrix spike/matrix spike duplicate analysis was performed on sample location TW-02RR.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260, 8270 and 8015 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  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.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were detected in the associated QA blanks; however, the associated sample results were non-detect, therefore; no qualification of the sample results was required.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
TRIP BLANK	CCV %D	Acetone	21.9%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

1 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketenes, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RR/DUP-02	Benzene	5.0	4.6	AC
	Toluene	1.0	1.0 J	AC
	Ethylbenzene	1.5	1.6	AC
	Xylene (Total)	4.2	4.1	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X	X		
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable surrogate recoveries.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD performed on sample location TW-02RR did not include any target compounds. No qualification of the data based on MS/MSD analysis was performed.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RR/DUP-2	Aniline	2000	1600	22.2%

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs; SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
BS/BSD Precision (RPD)		X		X	X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – percent relative difference, %R - percent recovery, RPD - relative percent difference, %D – difference

METHANOL (GC/FID) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Methanol by SW846 8015	Water	7 days from collection to analysis	Cooled @ 4 °C

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration verification standard recoveries were within the control limit.

4. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. Methanol analysis requires the surrogate compound to exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable surrogate recoveries.

5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit a RPD within the laboratory established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between MS/MSD recoveries.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

7. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RR/DUP-2	Methanol	ND	ND	AC

ND = Not detected.
AC = The field duplicate is acceptable when the difference between parent sample and field duplicate sample is less than two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The RPDs between the parent sample and field duplicate were acceptable.

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METHANOL

VOCs; SW-846 8015	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)					X
BS/BSD Precision (RPD)					X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Transcription/calculation errors present		X		X	
D. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

VALIDATION PERFORMED BY: Melissa Hall

SIGNATURE: Melissa Hall

DATE: May 12, 2009

PEER REVIEW BY: Dennis Capria

DATE: May 27, 2009

CORRECTED SAMPLE ANALYSIS DATA SHEETS AND COCs

Client ID: **MW-35**
Site: McKesson-Bear St.

Lab Sample No: **993306**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/03/09
GC Column: Rtx-VMS
Instrument ID: VOAMS4.i
Lab File ID: d07925.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: MW-34
Site: McKesson-Bear St.

Lab Sample No: 993307
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/03/09
GC Column: Rtx-VMS
Instrument ID: VOAMS4.i
Lab File ID: d07926.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	14	10
Trichloroethene	ND	1.0
Benzene	1.4	1.0
Toluene	0.7J	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	1.5J	3.0

Client ID: MW-36
Site: McKesson-Bear St.

Lab Sample No: 993308
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/03/09
GC Column: Rtx-VMS
Instrument ID: VOAMS4.i
Lab File ID: d07927.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	28	10
Trichloroethene	ND	1.0
Benzene	2.4	1.0
Toluene	0.8J	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	2.8J	3.0

Client ID: **TW-02RR**
Site: McKesson-Bear St.

Lab Sample No: **993309**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/03/09
GC Column: Rtx-VMS
Instrument ID: VOAMS4.i
Lab File ID: d07917.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	5.0	1.0
Toluene	1.0	1.0
Ethylbenzene	1.5	1.0
Xylene (Total)	4.2	3.0

Client ID: Dup-02
Site: McKesson-Bear St.

Lab Sample No: 993310
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/03/09
GC Column: Rtx-VMS
Instrument ID: VOAMS4.i
Lab File ID: d07918.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	4.6	1.0
Toluene	1.0J	1.0
Ethylbenzene	1.6	1.0
Xylene (Total)	4.1	3.0

Client ID: Trip Blank
Site: McKesson-Bear St.

Lab Sample No: 993311
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/03/09
GC Column: Rtx-VMS
Instrument ID: VOAMS4.i
Lab File ID: d07943.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	38	1.0
Acetone	ND	10
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
Xylene (Total)	ND	3.0

Client ID: MW-35
Site: McKesson-Bear St.

Lab Sample No: 993306
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41566.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **MW-34**
Site: McKesson-Bear St.

Lab Sample No: **993307**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41567.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	12	5.0
N,N-Dimethylaniline	2.0	0.5

Client ID: MW-36
Site: McKesson-Bear St.

Lab Sample No: 993308
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41586.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 2.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	150	10
N,N-Dimethylaniline	2.8	1.0

Client ID: TW-02RR
Site: McKesson-Bear St.

Lab Sample No: 993309
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41569.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	2000	100
N,N-Dimethylaniline	ND	10

Client ID: **Dup-02**
Site: McKesson-Bear St.

Lab Sample No: **993310**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Extracted: 04/01/09
Date Analyzed: 04/08/09
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s41587.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	1600	100
N,N-Dimethylaniline	ND	10

Client ID: MW-35
Site: McKesson-Bear St.

Lab Sample No: 993306
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/02/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3648.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-34**
Site: McKesson-Bear St.

Lab Sample No: **993307**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/02/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3649.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **MW-36**
Site: McKesson-Bear St.

Lab Sample No: **993308**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/02/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3650.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: **TW-02RR**
Site: McKesson-Bear St.

Lab Sample No: **993309**
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/02/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3647.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Client ID: Dup-02
Site: McKesson-Bear St.

Lab Sample No: 993310
Lab Job No: G388

Date Sampled: 03/27/09
Date Received: 03/27/09
Date Analyzed: 04/02/09
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f3651.d

Matrix: WATER
Level: LOW
Injection Volume: 1.0 ul
Final Volume: 0.0 mL
Dilution Factor: 1.0

NONHALOGENATED ORGANICS - GC/FID
ALCOHOLS

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methanol	ND	500

Chain of Custody Record

Temperature on Receipt 1.1 #

Drinking Water? Yes ☐ No ☒

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THE LEADER IN ENVIRONMENTAL TESTING

6398

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMEN	3/27/09	121758
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
6723 TOWPATH RD	315-446-9120		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	**Analysis (Attach list if more space is needed)**
SYRACUSE / NY / 13214	Nathan Smith	Jose McLeod	
Project Name and Location (State)	**Carrier/Waybill Number**		
MCKESSON BEAK ST, SYRACUSE NY			
Contract/Purchase Order/Quote No.			
B0026003 0000.00010			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	8015B	8260B	8270C	MS/MSD	Special Instructions/ Conditions of Receipt
MW-35	3/27/09	1115		X			5			3			X	X	X		993306
MW-34		1115											X	X	X		307
MW-36		0945											X	X	X		308
TW-02RR		0925					15			9			X	X	X	X	309
DUP-02	↓	—											X	X	X		310
TRIP BLANKS	↓	—								2							311

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer then 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Nathan J. Smith	3/27/09	1317	1. Received By:	3/27/09	1312
2. Relinquished By: R. English	03/27/09	18:00	2. Received By: Fedex		
3. Relinquished By: Fedex	3/27	11:00	3. Received By: C Hall	3/27/09	

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

NYSDEC Sample Identification and Analysis Summary Sheets

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
993306	WATER	3/27/09	3/27/09		4/3/09
993307	WATER	3/27/09	3/27/09		4/3/09
993308	WATER	3/27/09	3/27/09		4/3/09
993309	WATER	3/27/09	3/27/09		4/3/09
993309MS	WATER	3/27/09	3/27/09		4/3/09
993309SD	WATER	3/27/09	3/27/09		4/3/09
993310	WATER	3/27/09	3/27/09		4/3/09
993311	WATER	3/27/09	3/27/09		4/3/09

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
993306	WATER	3/27/09	3/27/09	4/1/09	4/8/09
993307	WATER	3/27/09	3/27/09	4/1/09	4/8/09
993308	WATER	3/27/09	3/27/09	4/1/09	4/8/09
993309	WATER	3/27/09	3/27/09	4/1/09	4/8/09
993309MS	WATER	3/27/09	3/27/09	4/1/09	4/8/09
993309SD	WATER	3/27/09	3/27/09	4/1/09	4/8/09
993310	WATER	3/27/09	3/27/09	4/1/09	4/8/09

10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
993306	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993306	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993307	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
993307	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993308	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		2.00
993308	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993309	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		20.00
993309	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993309MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993309MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		20.00
993309SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993309SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		20.00
993310	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
993310	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		20.00

10/95

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
G388	3/27/2009	ASP 2005	MW-35	Water	Yes	Yes	--	--	Yes	
G388	3/27/2009	ASP 2005	MW-34	Water	Yes	Yes	--	--	Yes	
G388	3/27/2009	ASP 2005	MW-36	Water	Yes	Yes	--	--	Yes	
G388	3/27/2009	ASP 2005	TW-02RR	Water	Yes	Yes	--	--	Yes	
G388	3/27/2009	ASP 2005	Dup-02	Water	Yes	Yes	--	--	Yes	
G388	3/27/2009	ASP 2005	Trip_Blank	Water	No	Yes	--	--	Yes	VOC - ccal

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.