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ENVIRONMENTAL

Mr. Gerald Rider
Bureau of Hazardous Site Control
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7012

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

Date:
August 18, 2008

Contact:
David J. Ulm

Phone:
315.671.9210

Email:
david.ulm@
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Our ref:
B0026003.00190 #10

Dear Mr. Rider:

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 2008. 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 (BBL, 1999b). The Site O&M Plan and the addendum are collectively referred to herein as the Site O&M Plan.

The Site is divided horizontally 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

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documented remedial activities from July through December 2000 (BBL, 2001). 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 treatment program was modified to an in-situ aerobic treatment program in August 2006 following NYSDEC approval. The in-situ aerobic bioremediation treatment program consists of amending the groundwater with an oxygen source and macronutrients.

During the current reporting period (January through June 2008), no substantial system repairs were required and system operations functioned properly. The Area 3 in-situ aerobic bioremediation treatment system operated satisfactorily during this reporting period without interruption, and approximately 823,815 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 between January and June 2008.

- **II. Hydraulic Process Control Monitoring** – Describes the results of the hydraulic control monitoring activities conducted between January and June 2008.

- **III. Chemical of Concern (COC) Process Control and Biannual Groundwater Monitoring Program** – Describes the March 2008 results of the COC process control and Biannual Groundwater Monitoring Program, and provides a summary of the COC data obtained at the Site from 1988 through March 2008.

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

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

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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 at the three areas. This treatment program consists of introducing an oxygen source and macronutrients into Areas 1, 2 and 3. The oxygen source is dilute hydrogen peroxide (H_2O_2), and the macronutrients include nitrogen and phosphorus in the form of Miracle-Gro®. The in-situ aerobic bioremediation treatment program was initiated on August 10, 2006, and the following activities were conducted as part of this treatment program (see Figure 1 for referenced locations).

- Added H_2O_2/nutrient-amended groundwater into the infiltration trenches in Areas 1, 2 and 3 once per week.

- Added H_2O_2/nutrient-amended groundwater into piezometers in Area 1 (PZ-S, PZ-G, PZ-Q and PZ-R), Area 2 (PZ-W) and Area 3 (PZ-E); and to well points in Area 1 (WP-4 and WP-5) and Area 3 (WP-1, WP-2, WP-3, WP-6, WP-7 and WP-8) once per week to better distribute dissolved oxygen (DO) into the shallow hydrogeologic unit.

- Measured DO levels in the field once per week in Area 1 (MW-33), Area 2 (MW-36) and Area 3 (MW-27 and MW-28).

H_2O_2 was added to the groundwater at a concentration of 200 parts per million (ppm), and nutrients were added at a carbon:nitrogen:phosphorus ratio of 50:25:10.

II. Hydraulic Process Control Monitoring

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 24, 2008. The monitoring locations are shown on Figure 1. NYSDEC was notified by e-mail on March 17, 2008 of the March 2008 process control monitoring event (including hydraulic and COC monitoring) prior to the commencement of the monitoring activities.

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Table 1 summarizes the groundwater level measurements obtained during the March 24, 2008 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 2 depicts the potentiometric surface of the Site's shallow hydrogeologic unit using the March 2008 data set. Site-wide groundwater elevations for this round 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 2.

- The groundwater withdrawal rate in Area 3 ranged from approximately 1.95 to 4.26 gallons per minute from January through June 2008.

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

- In Area 3, approximately 75% of the recovered groundwater continues to be introduced to the secondary infiltration trench "B" and the remaining 25% 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 H_2O_2/nutrient-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 9 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 0.76 to 2.21 millisiemens per centimeter (mS/cm), which is within 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

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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. COC Process Control and Biannual Groundwater Monitoring Program

The COC process control and Biannual Groundwater Monitoring Program activities were conducted from March 24 through 27, 2008, in accordance with the Site O&M Plan. Groundwater samples were collected March 25 through 27, 2008. In addition, the following groundwater quality parameters were measured in the field during this March 2008 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 March 2008 samples were validated. A summary of these validated COC groundwater analytical results is presented in Table 3 and shown on Figures 3 and 4. These figures and tables also summarize the COC groundwater analytical results obtained during the biannual monitoring events conducted from September 2006 through November 2007, which collectively represent the results obtained from the start of the in-situ aerobic bioremediation treatment activities. The COC groundwater analytical results obtained prior to September 2006 are summarized on the figures and tables in Attachment A. Copies of the validated analytical laboratory reports associated with the March 2008 sampling event are presented in Attachment B. A summary of the COC analytical results and DO measurements, and the downgradient perimeter monitoring locations for each of the three areas is presented herein.

During the March 2008 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.

To monitor the effectiveness of the in-situ aerobic biodegradation treatment program, DO levels continued to be measured on a weekly basis at monitoring locations MW-27, MW-28, MW-33 and MW-36 during this reporting period. Table 4 summarizes these DO measurements.

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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 2008 were generally low, ranging from non-detect to concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standard (Table 3 and Figure 3). All COC concentrations detected at Area 1 monitoring wells were approximately equal to or below concentrations detected during the November 2007 sampling event, with the exception of ethylbenzene and xylene concentrations detected at MW-9S, which were higher during this reporting period.

- The aniline concentrations detected at MW-33 have declined over the last four sampling events from 46 parts per billion [ppb] detected in June and August 2007 to 0.1 ppb detected in November 2007, which is below the NYSDEC Groundwater Quality Standard (5 ppb), to a non-detect in March 2008. This non-detect is the lowest aniline concentration that has been detected at MW-33 since the commencement of the bioremediation treatment activities in 1998.

- Although the benzene, ethylbenzene, xylene and N,N-dimethylaniline exceeded their respective NYSDEC Groundwater Quality Standards in March 2008 at MW-9S, the concentrations are consistent with prior sampling events conducted during the aerobic bioremediation program.

- 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 and are among the lowest concentrations detected since initiating the aerobic bioremediation program in June 2006.

- During this reporting period, weekly DO levels were measured at MW-33 from January 4 to June 27, 2008 and are summarized in Table 4. The DO levels ranged from 0.31 to 0.77 ppm; however, aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm.

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Area 2

- COC concentrations detected in groundwater samples collected from Area 2 monitoring wells were generally low, with the exception of the aniline concentrations detected in the groundwater samples collected from TW-02RR, MW-36 and MW-34 (Table 3 and Figure 3). However, the aniline concentration at MW-36 decreased over the last four sampling events (June, August and November 2007, and March 2008).

- The aniline concentration detected at TW-02RR was higher during this reporting period (7,500 ppb in March 2008) than the concentrations detected during the previous reporting year (4,000 ppb in August 2007 and 3,700 ppb in November 2007). No other COCs, except benzene and xylene, were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standards in the groundwater samples collected at this location during the March 2008 sampling event. The benzene and xylene concentrations were consistent with concentrations detected previously at TW-02RR.

- The aniline concentration detected at MW-34 increased from 0.3 ppb in November 2007 to 24 ppb in March 2008. Although the March 2008 aniline concentration was detected above the NYSDEC Groundwater Quality Standard (5 ppb), it is consistent with or lower than historical concentrations. No other COCs, except benzene and N,N-dimethylaniline, were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standard in the March 2008 sampling event at this location.

- The aniline concentrations detected at MW-36 decreased from 480 ppb in November 2007 to 130 ppb in March 2008. No other COCs, except benzene, xylene and N,N-dimethylaniline, were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standard in the March 2008 sampling event at this location.

- Weekly DO levels were measured in Area 2 (MW-36) from January 4 to June 27, 2008 and are summarized in Table 4. The DO levels ranged from 0.33 to 0.90 ppm.

Area 3

- COC concentrations detected in groundwater samples collected from Area 3 monitoring wells during the March 2008 sampling event were generally consistent

with or lower than the previous sampling event conducted in November 2007, with the exception of the aniline concentration detected at MW-27(Table 3 and Figure 4).

- 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 4). The aniline concentrations detected at MW-8SR decreased during this reporting period from 22,000 ppb in November 2007 to 5,800 ppb in March 2008. The other COC concentrations exceeding their respective NYSDEC Groundwater Quality Standard in the groundwater sample collected from MW-8SR in November 2007 (i.e., benzene, toluene, ethylbenzene and xylene [BTEX]) were consistent with previously detected concentrations.

- Aniline concentrations detected at MW-27 increased from 3,000 ppb in November 2007 to 13,000 ppb in March 2008. Although the aniline concentration increased, the March 2008 detection is approximately 2.5 times lower than the November 2006 aniline concentration (33,000 ppb). The other COCs detected in the groundwater sample collected from MW-27 in March 2008 (i.e., BTEX) were relatively low and consistent with previously detected concentrations.

- Monitoring well MW-28 is also located within Area 3 and historically exhibited relatively higher concentrations of methylene chloride and aniline. The aniline concentration detected at MW-28 was higher this reporting period (81 ppb in March 2008) than during the previous reporting period (29 ppb in November 2007). Even though the aniline concentration increased this reporting period it is lower than historical concentrations (e.g., 1,000 ppb in Nov. 2006) and generally consistent with the concentrations detected over the last three reporting periods. Methylene chloride concentrations continued to be below detection limits in groundwater samples collected from MW-28 since the May 2003 sampling event. The other COCs were generally not detected above their respective Groundwater Quality Standard in groundwater samples collected from MW-28, with the exception of benzene, which was detected at a concentration (4.0 ppb) just slightly greater than its NYSDEC Groundwater Quality Standard of 1 ppb.

- The aniline concentration detected at MW-30 (3.0 ppb) was below the Groundwater Quality Standard (5 ppb) this reporting period and 16 times lower than the concentration detected in November 2007 (49 ppb). No other COCs were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standard.

- Weekly DO levels were measured at MW-27 and MW-28 from January 4 to June 27, 2008 and are summarized in Table 4. The DO levels at MW-27 ranged from 0.40 to 0.96 ppm. The DO levels at MW-28 ranged from 0.55 to 1.03 ppm.

Downgradient Perimeter Monitoring Locations

COCs were not detected above their respective NYSDEC Groundwater Quality Standards at any of the downgradient perimeter monitoring locations (Table 2) during the March 2008 sampling event (Table 3 and Figure 4).

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 locations in March 2008; these results are consistent with perimeter groundwater data obtained since 2004. Prior to 2004, aniline and N,N-dimethylaniline were detected above the NYSDEC Groundwater Quality Standards at certain perimeter sampling locations.

- COC concentrations detected in the groundwater samples collected from Area 1 demonstrate a significant decrease since the in-situ anaerobic bioremediation treatment activities began in July 1998. COC concentrations have continued to remain low since the in-situ aerobic bioremediation treatment program was introduced in August 2006. In March 2008, the COCs in this area were mostly non-detect, including aniline in 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.

- 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 achieved; however, the aniline concentrations within Area 1 (i.e., MW-33) have decreased below the NYSDEC

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Groundwater Quality Standard suggesting that the in-situ aerobic bioremediation treatment program facilitated the reduction of aniline.

- In the downgradient edge of Area 1, the aniline concentrations previously detected in MW-33 have decreased below the NYSDEC Groundwater Quality Standard. During the March 2008 sampling event aniline was not detected in the groundwater sample from MW-33. This is the first non-detect for aniline since initiating the in-situ aerobic bioremediation treatment program in September 2006.

- 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, with the exception of aniline detected at monitoring locations TW-02RR and MW-36. However, the March 2008 aniline concentration (7,500 ppb) detected at TW-02RR is approximately 25% lower than the concentration detected in June 2006 (10,000 ppb) prior to initiating the in-situ aerobic bioremediation treatment program. The aniline concentration detected at MW-36 has decreased from 1,300 ppb in June 2007 to 130 ppb in March 2008, which is among the lowest aniline concentrations detected since initiating the in-situ aerobic bioremediation treatment program in September 2006. In addition, aniline and N,N-dimethylaniline concentrations remain relatively low at MW-34. Despite the increase in aniline concentrations detected at TW-02RR and MW-34 in March 2008, overall the previous results indicate that the in-situ aerobic bioremediation treatment program is facilitating the reduction of aniline.

- Based on the DO levels measured in Area 2 it does not appear that aerobic conditions were achieved; however, the aniline concentrations within Area 2 (i.e., TW-02RR) have decreased overall between June 2006 and March 2008 suggesting that the in-situ aerobic bioremediation program facilitated the reduction of aniline. The low DO levels and the decrease in aniline concentrations detected at TW-02RR and MW-36 in November 2007, followed by the slight increase in concentration in March 2008, indicates that an increased amount of oxygen introduced to Area 2 is required for the continuous reduction of aniline.

- 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, aniline concentrations at MW-8SR, MW-27 and MW-28 have decreased (i.e., 75, 7 and 81%, respectively) between the end of the anaerobic treatment program in June 2006 and the March 2008 sampling event.

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A similar oxygen infusion system would be installed in Area 3 and consist of the installation of eight 2-inch diameter by approximately 20 feet deep diffusion wells including eight iSOC® units (one unit placed in each diffusion well). The diffusion wells will be located in the center of Area 3 between existing groundwater infiltration trench A and trench B and upgradient of MW-8SR and MW-27, an oxygen diffuser will be placed within the existing EQ tank located inside the Area 3 shed.

As discussed in the Remedial Design/Remedial Action Work Plan for OU2 (BBL 1997), the groundwater extraction, amendment and infiltration program implemented in Area 3 does not require a SPDES 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. The groundwater treatment program with the proposed modifications will remain in compliance with the NYSDEC Division of Water and Technical and Operational Guidance Series (TOGS 2.1.2), "Underground Injection/Recirculation (UIR) at Ground Water Remediation Sites," dated July 27, 1990.

Upon approval by NYSDEC, modifications to the in-situ aerobic bioremediation program for Areas 2 and 3 are anticipated to be implemented in Fall 2008.

Based on the quantities of nutrients that have been added to the groundwater to date and the decrease in COC concentrations, it is assumed that the nutrients present in the groundwater are at sufficient quantities for aerobic biodegradation to continue. Therefore, it is recommended at this time that nutrient amendments be discontinued for Areas 1, 2 and 3.

Measuring the DO levels has proven to be valuable in determining a relationship between DO levels and the reduction in aniline. It is recommended that DO levels continue to be measured in the field at MW-33 in Area 1, MW-36 in Area 2, and MW-27 and MW-28 in Area 3 once per week.

The Biannual Groundwater Monitoring Program activities will continue to be conducted at the Site (Table 2). The second biannual sampling event of 2008 is scheduled to be conducted during the week of August 25, 2008. An interim sampling event is anticipated to be conducted in November 2008 after the oxygen system is installed. Samples will be collected at MW-8SR, MW-27, MW-36 and TW-02RR.

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

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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.

This Site currently is classified by the NYSDEC as a Class 2 Hazardous Waste Disposal Site (i.e., a significant threat to the public health or environment and action is required). Section 7 of the NYSDEC March 1997 Record of Decision for the Site states that "once remedy is in place, the Site will be reclassified as a Class 4, indicating that the remedial action is in place and only operation and maintenance will be required." As previously noted, the OU2 remedy was in place in July 1998 and only O&M activities are required; therefore, it is recommended that the NYSDEC reclassify the Site to a Class 4 Hazardous Waste Disposal Site (i.e., the Site is properly closed, but requires continued management).

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

Sincerely,

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David J. Ulm
Senior Vice President

DEP/dac
Attachments

Copies:
Mr. Jim Burke, P.E., NYSDEC (w/out Attachment B)
Mr. Chris Mannes, NYSDEC (w/out Attachment B)
Ms. Henriette Hamel, R.S., 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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- Based on the DO levels measured in Area 3 it does not appear that aerobic conditions were achieved; however, the aniline concentrations within Area 3 (i.e., MW-8SR, MW-27 and MW-28) have decreased overall between June 2006 and March 2008 suggesting that the in-situ aerobic bioremediation treatment program facilitated the reduction of aniline. An increased amount of oxygen source introduced to Area 3 appears to be necessary for the continuous reduction of aniline.

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. The decrease of generally low aniline concentrations detected in Area 1 suggests that the monthly H_2O_2 amendments provide adequate oxygen for the continuation of aerobic degradation of aniline in this area. It is recommended that the monthly H_2O_2 amendments continue in Area 1. However, it is recommended that the following modifications to the aerobic program be made to provide oxygen continuously to the groundwater in Areas 2 and 3 where there appears to be a greater oxygen demand.

The monitoring results of the current in-situ aerobic bioremediation program indicate that a constant source of oxygen may need to be supplied for continuous aniline reduction in the areas of relatively high aniline concentrations (i.e., TW-02RR, MW-27 and MW-8SR) in Area 2 and 3. As previously discussed, the H_2O_2 currently is dosed weekly, so the concentration is high initially and then decreases as it is consumed. It is proposed to install an oxygen infusion system at the Site to address the relatively high aniline concentrations detected in Areas 2 and 3. The oxygen infusion system would consist of the installation of 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 equalization (EQ) tank. It is anticipated that a constant source of oxygen may result in less fluctuation of the aniline concentrations and a faster treatment time than is observed with the current H_2O_2 amendments.

The proposed oxygen infusion system that would be installed in Area 2 consists of the installation of five 2-inch diameter by approximately 20 feet deep diffusion wells parallel to the existing groundwater infiltration trench in Area 2 located between MW-34 and TW-02RR, the construction of a shed in Area 2 to house an oxygen delivery system and the installation of five iSOC® units (one unit placed in each diffusion well).

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Tables

Table 1. Summary of Select Groundwater Level Measurements, 2008 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
Canal	393.39*	364.29	362.99	362.06	364.34
Collection Sump	372.81	363.18	362.26	361.86	363.81
MW-3S	376.54	369.08	--	367.60	367.93
MW-3D	375.56	366.90	365.52	365.24	366.62
MW-6D	377.07	367.07	365.72	365.44	366.83
MW-9D	376.76**	366.91	365.83	365.56	366.87
MW-11D	373.68	366.53	--	364.92	366.32
MW-11S	373.50	366.11	364.27	363.88	365.69
MW-18	372.57	363.82	362.63	362.32	363.51
MW-19	376.00	364.09	362.93	362.61	363.84
MW-23I	372.77	366.43	365.02	364.74	366.12
MW-23S	372.61	365.28	362.98	362.56	364.81
MW-24DR	375.14	366.59	365.28	364.90	366.31
MW-24SR	375.55	366.49	365.21	364.83	366.26
MW-25D	373.67	366.64	365.30	364.95	366.35
MW-25S	373.39	365.26	363.32	362.87	364.84
PZ-4D	376.11	366.64	365.29	364.98	366.39
PZ-5D	375.58	366.87	365.49	365.19	366.69
PZ-9D	377.29	366.91	365.26	366.09	366.68
PZ-A	373.94	365.62	363.11	362.72	364.83
PZ-B	373.92	365.85	363.12	362.62	365.03
PZ-C	374.85	367.14	365.85	365.30	367.15
PZ-D	375.12	367.68	365.98	365.40	367.29
PZ-E	374.12	368.13	365.16	364.07	366.58
PZ-F	377.06	368.32	366.18	365.76	367.99
PZ-G	377.16	368.64	366.28	365.82	368.14
PZ-HR	376.99	368.31	366.23	365.74	368.00
PZ-I	375.15	369.00	366.49	365.92	368.55
PZ-J	374.89	367.96	366.16	365.82	367.69
PZ-K	373.19	365.58	363.36	362.91	364.96
PZ-L	374.62	365.23	362.94	362.63	364.64
PZ-M	374.35	365.60	363.54	363.11	365.13
PZ-N	376.94***	367.51	365.76	365.26	367.05
PZ-O	375.36	365.42	363.22	362.82	365.01
PZ-P	376.89	368.30	366.31	365.83	368.06
PZ-Q	377.61	368.61	366.33	365.83	368.23
PZ-R	377.05	368.51	366.19	365.79	368.20
PZ-S	378.13	372.48	366.51	365.81	368.21
PZ-T	376.25	368.04	366.24	365.84	367.89
PZ-U	375.35	367.99	366.07	365.80	367.75
PZ-V	375.78	367.97	366.17	365.78	367.78
PZ-W	375.78	367.79	366.01	365.69	367.59

Notes:

1. AMSL = above mean sea level (NGVD of 1929)
2. * = 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.
3. ** = 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.
4. *** = 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.

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
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

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
PZ-B	H	H
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	
PZ-4D	C, H	H
PZ-5S		C
PZ-5D	H	C, H

Notes:

1. The hydraulic monitoring identified in this table will be conducted on a semi-annual basis. This monitoring also includes measuring the conductivity of groundwater recovered from Area 3 from a sampling port located before the equalization tank.
2. Field groundwater parameters including pH, temperature, conductivity, dissolved oxygen, and oxidation/reduction potential are measured during each COC sampling event.
3. Each of the monitoring wells and piezometers used for hydraulic and COC monitoring during the semi-annual monitoring event are checked for the presence (if any) of non-aqueous phase liquid.
4. 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).
5. This table is based on the NYSDEC-approved *Operation and Maintenance (O&M) Plan* (BBL, Revised August 1999), including the NYSDEC-approved December 29, 1999 Addendum with the modifications detailed in the *Biannual Process Control Monitoring Report,* BBL, October 2004.

   H = Hydraulic monitoring (groundwater level measurements).

   C = Monitoring for chemicals of concern (COCs).

Table 3. Summary of Groundwater Monitoring Data, August 2006 to March 2008, 2008 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
MW-3S	11/08	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
MW-8SR[C]	9/06	362.7	352.7	NS	NS	NS	NS	NS	NS	NS	52,000 (51,000)	<520 (<520)	NS
	11/06			28	16	100	84	270	<500	<1.0	28,000	<200	<3.0
	6/07			58	14	110	83	250	<500	<2.0	2,700	<22	<6.0
	8/07			NS	NS	NS	NS	NS	NS	NS	17,000	<100	NS
	11/07			<5.0 J	12	22	73	210	<500	<1.0	22,000 J	<100 J	<3.0
	3/08			<10 [9.6 J]	5.5 [5.7]	22 [22]	70 [68]	160 [160]	<500 [<500]	<2.0 [<2.0]	5,800 [5,200]	<25 [<50]	<6.0 [<6.0]
MW-9[B]	11/06	365.6	356	<5.0	1.4	3.5 J	23	63	<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	11	58	<500 J	<1.0	1.7 J	8.6	<3.0
	3/08			<5.0 J	1.1	3.0 J	37	73	<500	1.2	0.7 J	8.8	<3.0
MW-17[A]	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
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
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
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
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

See notes on page 4.

Table 3. Summary of Groundwater Monitoring Data, August 2006 to March 2008, 2008 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-24S[A]	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
MW-24D[A]	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
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
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
MW-27	9/06	362.5	354.5	NS	NS	NS	NS	NS	NS	NS	1,700	<10	NS
	11/06			31 (24)	14 (14)	71 (71)	42 (45)	91 (110)	<500 (<500)	<1.0 (<1.0)	33,000 (33,000)	<210 (<200)	<3.0 (<3.0)
	6/07			21	8.4	9.5	14	24	<500	<1.0	1100	<10	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	<10 J (4,300 J)$_{7}$	<1.0 (<20)	NS
	11/07			<5.0 J (<5.0)	6.6 (5.9)	4.7 J (4.1 J)	8.6 (7.2)	24 (21)	<500 (<500)	<1.0 (<1.0)	3,000 J (3,800 J)	<25 J (<25 J)	<3.0 (<3.0)
	3/08			21	9.4	23	43	68	<500	<2.0	13,000	<100	<6.0
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	5.6	4.4 J	<500	<1.0	1,000	<5.2	<3.0
	6/07			13	4.6	0.4 J	0.8 J	0.6 J	<500	<1.0	60	<1.0	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	40	<1.0	NS
	11/07			<5.0 J	4.5	0.5 J	1.4 J	0.8 J	<500	<1.0	29 J	<0.5 J	<3.0
	3/08			<5.0	4.0	0.5 J	1.6 J	1.3 J	<500	<1.0	81	0.9	<3.0
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
MW-30	11/06	363.5	355.5	11	1.0	<5.0	<4.0	<5.0	<500	<1.0	200	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	30	<1.1	<3.0
	11/07			<5.0 J	0.8 J	<5.0	<4.0	<5.0	<500	<1.0	49	<0.5	<3.0
	3/08			<5.0	0.6 J	<5.0	<4.0	0.2 J	<500	<1.0	3.0 J	0.7	<3.0
MW-31	9/06	363.7	355.4	NS	NS	NS	NS	NS	NS	NS	1.6	3.4	NS
	11/06			R	6.9	<5.0	<4.0	<5.0	<500	<1.0	0.4 J	1.1 J	<3.0
	6/07			<5.0	14	0.7 J	<4.0	1.3 J	<500	<1.0	<5.0	2.0	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	0.5 J	2.7	NS
	11/07			<5.0 (<5.0)	12 (10)	<5.0 (0.4 J)	<4.0 (<4.0)	1.1 J (1.4 J)	<500 J (<500 J)	<1.0 (<1.0)	<5.0 (0.3 J)	2.3 (2.8)	<3.0 (<3.0)
	3/08			<5.0 J	2.0	<5.0	<4.0	<5.0	<500	<1.0	0.2 J	1.6	<3.0
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

See notes on page 4.

Table 3. Summary of Groundwater Monitoring Data, August 2006 to March 2008, 2008 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	9/06	344.1	356.1	NS	NS	NS	NS	NS	NS	NS	940	8.0	NS
	11/06			17 J	8.6	0.7 J	<4.0	<5.0	<500	<1.0	84	2.9 J	<3.0
	6/07			<5.0	5.7	0.4 J	<4.0	<5.0	<500	<1.0	46	2.6	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	46	4.2	NS
	11/07			<5.0	4.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.1 J	3.5	<3.0
	3/08			<5 0 J	4.1	<5.0	<4.0	<5.0	<500	<1.0	<5.0	4.1	<3.0
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
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
MW-36	9/06	363.6	355.6	NS	NS	NS	NS	NS	NS	NS	3.5	1.2	NS
	11/06			130 J	3.6	1.2 J	<4.0	1.1 J	<500	<1.0	420	1.7 J	<3.0
	6/07			33	4.6	1.4 J	0.8 J	5.0	<500	<1.0	1,300	<10	<3.0
	8/07			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
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
TW-02RR[C]	9/06	363.3	353.3	NS	NS	NS	NS	NS	NS	NS	7,600	<52	NS
	11/06			78 J	4.9	1.4 J	2.2 J	6.2	<500	<1.0	2,100	<10 J	<3.0
	6/07			17	5.5	1.3 J	4.0	8.8	<500	<1.0	6,800	<100	<3.0
	8/07			NS	NS	NS	NS	NS	NS	NS	4,000 J	<20	NS
	11/07			5.5	5.8	1.2 J	3.0 J	7.6	<500 J	<1.0	3,700	<25	<3.0
	3/08			6.4 [5.2]	4.5 J [2.3 J]	1.3 J [0.7 J]	3.8 J [1.9 J]	10 [4.8 J]	<500 [<500]	<1.0 [<1.0]	7,500 [5,400]	<50 [<50]	<3.0 [<3.0]
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
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
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
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

See notes on page 4.

Table 3. Summary of Groundwater Monitoring Data, August 2006 to March 2008, 2008 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. 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 biodegradation 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 milligrams 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] = Wells/piezometers MW-17, MW-24S and MW-24D were abandoned 11/97 - 1/98.
[B] = Well MW-9 was abandoned during OU1 soil remediation activities (1994).
[C] = Wells MW-8S and TW-02R were abandoned in 8/04 and replacement wells MW-8SR and TW-02RR were installed in 8/04.

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 Dissolved Oxygen Measurements, 2008 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Date	Dissolved Oxygen (ppm)			
	MW-33 (Area 1)	MW-36 (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)
8/21/2006	N/R	-	N/R	3.35
8/28/2006	0.28	-	0.88	2.18
9/1/2006	0.53	-	0.41	0.40
9/8/2006	0.22	-	0.42	0.53
9/21/2006	0.17	-	0.21	0.37
9/29/2006	0.28	-	0.37	0.40
10/6/2006	0.16	-	0.43	0.29
10/13/2006	0.21	-	0.33	0.31
10/28/2006	0.17	-	0.24	0.29
11/10/2006	0.37	-	0.33	0.38
11/16/2006	0.27	-	0.23	0.21
11/22/2006	0.41	-	0.37	0.42
12/4/2006	0.29	-	0.23	0.32
12/7/2006	0.24	-	0.22	0.29
12/14/2006	0.57	-	0.27	0.32
1/7/2007	0.30	-	0.27	0.21
1/12/2007	0.24	-	0.27	0.30
1/19/2007	0.23	-	0.20	0.37
1/26/2007	0.26	-	0.61	0.57
2/9/2007	0.24	-	0.28	0.44
2/22/2007	0.33	-	0.44	0.30
3/2/2007	0.62	-	0.20	0.36
3/16/2007	0.29	-	0.37	0.55
3/23/2007	0.25	-	0.22	0.46
3/30/2007	0.47	-	0.45	0.79
4/5/2007	0.31	-	0.59	0.91
4/19/2007	0.32	-	0.27	0.73
4/26/2007	0.26	-	0.49	0.48
5/11/2007	0.50	-	0.43	0.58
5/25/2007	0.22	-	0.53	0.81
6/1/2007	0.30	-	0.32	0.70
6/29/2007	0.48	0.90	1.87	2.76
7/3/2007	0.21	0.48	0.43	0.66
7/13/2007	0.38	0.38	0.68	1.18
7/19/2007	0.36	0.22	0.52	0.98
7/27/2007	0.24	0.32	0.50	0.86
8/3/2007	0.47	0.47	0.57	0.79
8/9/2007	0.63	0.31	0.42	0.70
8/16/2007	0.37	0.31	0.40	0.85
8/24/2007	0.38	0.33	0.50	0.88
8/31/2007	0.54	0.40	0.52	0.77
9/7/2007	0.47	0.40	0.35	0.52
9/14/2007	0.40	0.38	0.39	0.83
9/21/2007	0.36	0.31	0.34	0.46
9/28/2007	0.28	0.43	0.57	0.71
10/5/2007	0.38	0.41	0.41	0.68
10/12/2007	0.41	0.44	0.65	1.03
10/19/2007	0.44	0.52	0.59	1.02
10/26/2007	0.32	0.50	0.71	1.04
11/2/2007	0.38	0.48	0.44	0.90
11/9/2007	0.43	0.43	0.68	1.04
11/16/2007	0.50	0.64	0.33	0.38
11/21/2007	0.56	0.32	0.44	1.24
11/30/2007	0.42	0.51	0.84	1.28
12/7/2007	0.44	0.41	0.54	0.66

See notes on page 2.

Table 4. Summary of Dissolved Oxygen Measurements, 2008 Biannual Process Control Monitoring Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Date	Dissolved Oxygen (ppm)			
	MW-33 (Area 1)	MW-36 (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)
12/14/2007	0.49	0.55	0.55	1.02
12/20/2007	0.45	0.44	0.89	0.90
12/28/2007	0.42	0.46	0.56	1.10
1/4/2008	0.46	0.39	0.77	0.89
1/11/2008	0.48	0.36	0.64	0.91
1/18/2008	0.45	0.44	0.74	1.02
1/25/2008	0.42	0.33	0.96	0.92
2/1/2008	0.43	0.38	0.89	1.03
2/8/2008	0.42	0.61	0.63	0.77
2/15/2008	0.46	0.54	0.86	0.99
2/22/2008	0.53	0.51	0.84	0.71
2/29/2008	0.44	0.45	0.73	0.92
3/7/2008	0.61	0.45	0.74	1.01
3/14/2008	0.65	0.34	0.77	0.82
3/21/2008	0.65	0.46	0.63	0.81
3/28/2008	0.62	0.33	0.71	0.87
4/4/2008	0.66	0.44	0.68	0.98
4/9/2008	0.77	0.35	0.54	0.79
4/20/2008	0.68	0.41	0.64	0.77
4/25/2008	0.48	0.61	0.43	0.76
5/2/2008	0.44	0.48	0.66	0.79
5/9/2008	0.46	0.41	0.67	0.81
5/16/2008	0.49	0.44	0.79	0.97
5/22/2008	0.38	0.40	0.43	0.59
5/30/2008	0.44	0.34	0.72	0.55
6/6/2008	0.31	0.33	0.40	0.67
6/13/2008	0.38	0.37	0.48	0.58
6/20/2008	0.41	0.70	0.40	0.58
6/27/2008	0.68	0.90	0.69	1.02

Notes:

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

N/R = no reading was taken.

ppm = parts per million

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Figures

New Diffusion wells

VAN RENSSELAER STREET

PZ-9S & PZ-9D
MW-22
MW-15S
PZ-I
PZ-T
PZ-U
PZ-J
MW-35
PZ-W
MW-36
TW-02RR
PZ-V
MW-34
MW-4S

STANDPIPES SP-2-2, SP-2-3, AND SP-2-4 LOCATED ALONG THIS TRENCH WERE USED AS BIOLOGICAL MONITORING LOCATIONS DURING THE SHORT-TERM PROCESS CONTROL MONITORING PROGRAM (JULY 1998 THROUGH JULY 1999)

AREA 2

PZ-HR
MW-31
MW-9D
MW-9S
TW-01
MW-32
PZ-R
PZ-S
MW-33
MP-5
WP-4
PZ-P
PZ-Q
PZ-G
PZ-F

STANDPIPES SP-1-1, SP-1-3, AND SP-1-5 LOCATED ALONG THIS TRENCH WERE USED AS BIOLOGICAL MONITORING LOCATIONS DURING THE SHORT-TERM PROCESS CONTROL MONITORING PROGRAM (JULY 1998 THROUGH JULY 1999)

AREA 1

MW-3S
MW-3D
MW-6D
MW-6S
MW-1
SV

PZ-5S & PZ-5D
MW-19
MW-13S
MW-26S
MW-2S
PZ-4S & PZ-4D
MW-24DR
MW-24SR
MW-11D
MW-11S
GATES
BUILDING
PZ-M
MW-17R
COLLECTION SUMP
PZ-D
PZ-A
PZ-L
MW-18
MW-30
WP-8
WP-7
WP-6
MW-27
MW-8SR
PZ-E
PZ-N
WP-2
WP-3
MW-28
WP-1
MW-29
MW-23S
MW-23I
PZ-K
PZ-B
PZ-C
PZ-O
MW-25S
MW-25D
AREA 3

PAVEMENT

BEAR STREET

PAVEMENT

BRIDGE

FLOW

BARGE CANAL

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- GROUNDWATER MONITORING WELL
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PIEZOMETER add nutrient grid
- PUMPING WELL
- WELL POINT add nutrient grid
- BOUNDARY OF IMPACTED AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- AREA OF RELATIVELY HIGHER CONCENTRATIONS OF COCs
- TREE LINE
- EDGE OF BARGE CANAL

NOTES:

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

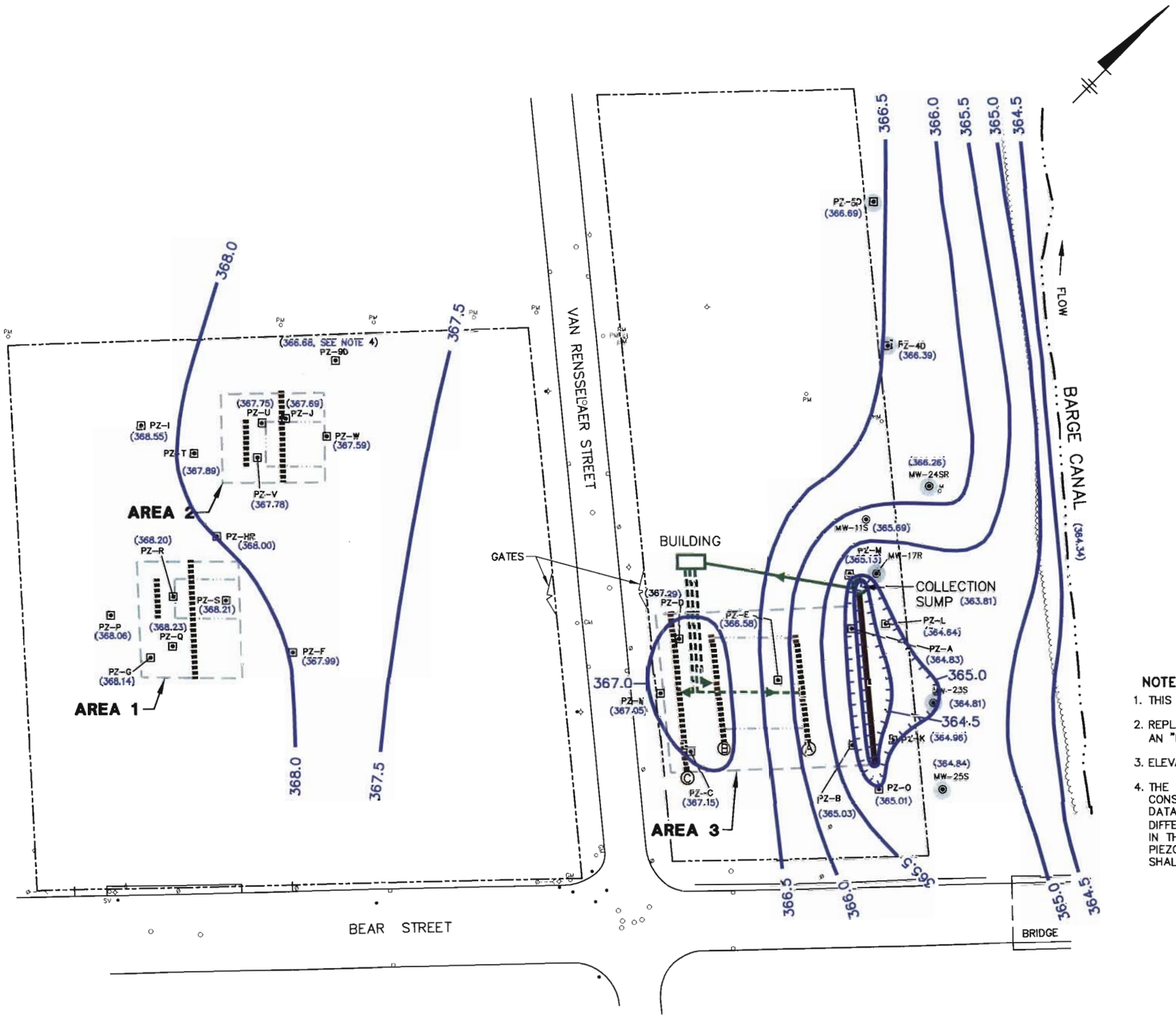
0 100' 200'
GRAPHIC SCALE

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

SITE PLAN

ARCADIS

FIGURE 1



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
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A PIEZOMETER
- BOUNDARY OF IMPACTED AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- AREA OF RELATIVELY HIGHER CONCENTRATIONS OF COCs
- 366.5 GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL) DASHED WHERE INFERRED
- GROUNDWATER ELEVATION CONTOUR CLOSED DEPRESSION
- (365.29) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [366.09] ANOMALOUS MEASUREMENT NOT USED FOR CONTOURING

NOTES:

1. THIS FIGURE ONLY IDENTIFIES THE HYDRAULIC MONITORING LOCATIONS.
2. REPLACED MONITORING WELLS AND PIEZOMETERS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
3. ELEVATIONS BASED ON 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.

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 24, 2008

ARCADIS

FIGURE 2

CITY:SYRACUSE GROUP: ENV-141 DB:RCB, PGL RCB PM: D. PENNIMAN TR: B. BYRNES LYR:ON=*;OFF=REF, (FRZ)
G:\CAD\ACT\B0026003100\001901\BIANNUAL\NO.DRAFT\26003W08.DWG LAYOUT: 2 SAVED: 8/18/2008 3:03 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---
XREFS: IMAGES: PROJECTNAME: ---
26003X01
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/18/2008 3:04 PM BY: SARTORI, KATHERINE

TW-02RR						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	78 J	17	–	5.5	6.4
Benzene	–	4.9	5.5	–	5.8	4.5 J
Toluene	–	1.4 J	1.3 J	–	1.2 J	1.3 J
Ethylbenzene	–	2.2 J	4.0	–	3.0 J	3.8 J
Xylene	–	6.2	8.8	–	7.6	10
Methanol	–	<500	<500	–	<500 J	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	7,600	2,100	6,800	4,000 J	3,700	7,500
N,N-dimethylaniline	<52	<10 J	<100	<20	<25	<50
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0

MW-35				
Date	11/06	6/07	11/07	3/08
Acetone	R	13	<5.0	<5.0 J
Benzene	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0	<5.0
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	1.1	<5.0	<5.0	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0

MW-36						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	130 J	33	–	10	8.0 J
Benzene	–	3.6	4.6	–	4.5	4.2
Toluene	–	1.2 J	1.4 J	–	1.7 J	1.5 J
Ethylbenzene	–	<4.0	0.8 J	–	0.9 J	0.8 J
Xylene	–	1.1 J	5.0	–	5.3	5.5
Methanol	–	<500	<500	–	<500 J	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	3.5	420	1,300	740	480 J	130
N,N-dimethylaniline	1.2	1.7 J	<10	<5.0	3.4 J	3.0
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0

MW-34				
Date	11/06	6/07	11/07	3/08
Acetone	49 J	22	<5.0	16
Benzene	<1.0	0.9 J	0.8 J	1.0 J
Toluene	0.6 J	0.5 J	0.6 J	0.5 J
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	0.6 J	0.6 J	1.1 J	1.1 J
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	9.9	<5.0	0.3 J	24
N,N-dimethylaniline	1.2 J	<1.0	1.5	1.3
Methylene Chloride	<3.0	<3.0	<3.0	<3.0

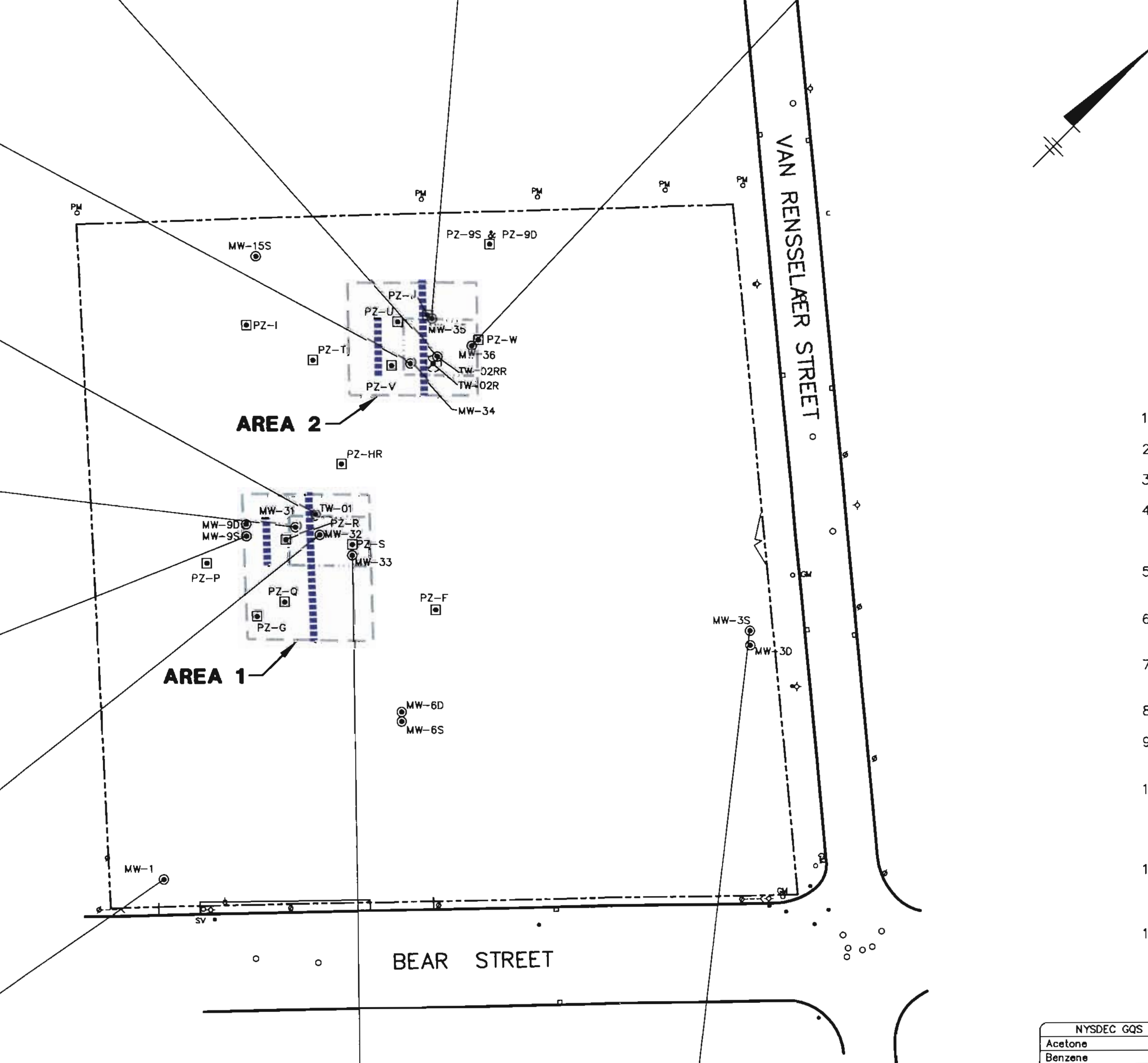
TW-01				
Date	11/06	6/07	11/07	3/08
Acetone	R	7.8	<5.0	<5.0 J
Benzene	0.7 J	0.5 J	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0	<5.0
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	0.2 J	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	1.1	1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0

MW-31						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	R	<5.0	–	<5.0	<5.0 J
Benzene	–	6.9	14	–	12	2.0
Toluene	–	<5.0	0.7 J	–	<5.0	<5.0
Ethylbenzene	–	<4.0	<4.0	–	<4.0	<4.0
Xylene	–	<5.0	1.3 J	–	1.1 J	<5.0
Methanol	–	<500	<500	–	<500 J	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	1.6	0.4 J	<5.0	0.5 J	<5.0	0.2 J
N,N-dimethylaniline	3.4	1.1 J	2.0	2.7	2.3	1.6
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0

MW-9S				
Date	11/06	6/07	11/07	3/08
Acetone	<5.0	<5.0	<5.0	<5.0 J
Benzene	1.4	1.4	0.9 J	1.1
Toluene	3.5 J	3.3 J	2.0 J	3.0 J
Ethylbenzene	23	42	11	37
Xylene	63	110	58	73
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	1.2
Aniline	0.5 J	<5.0	1.7 J	0.7 J
N,N-dimethylaniline	3.3 J	4.1	8.6	6.8
Methylene Chloride	<3.0	<3.0	<3.0	<3.0

MW-32				
Date	11/06	6/07	11/07	3/08
Acetone	R	<5.0	<5.0	<5.0 J
Benzene	<1.0	<1.0	<1.0	0.8 J
Toluene	0.8 J	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0	<5.0
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	0.1 J	<5.0
N,N-dimethylaniline	<1.0 J	<1.0	0.8	0.8
Methylene Chloride	<3.0	<3.0	<3.0	<3.0

MW-1				
Date	11/06	6/07	11/07	3/08
Acetone	<5.0	<5.0	<5.0	<5.0 J
Benzene	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0	<5.0
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<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	<3.0



MW-33						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	17 J	<5.0	–	<5.0	<5.0 J
Benzene	–	8.6	5.7	–	4.0	4.1
Toluene	–	0.7 J	0.4 J	–	<5.0	<5.0
Ethylbenzene	–	<4.0	<4.0	–	<4.0	<4.0
Xylene	–	<5.0	<5.0	–	<5.0	<5.0
Methanol	–	<500	<500	–	<500 J	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	940	84	46	46	0.1 J	<5.0
N,N-dimethylaniline	8.0	2.9 J	2.6	4.2	3.5	4.1
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0

MW-3S				
Date	11/06	6/07	11/07	3/08
Acetone	<5.0	<5.0	<5.0	<5.0
Benzene	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0	<5.0
Methanol	<500	<500	<500 J	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<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	<3.0

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PM — PETROLEUM PIPE LINE MARKER
- GM — GAS LINE MARKER
- SV — SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 — GROUNDWATER MONITORING WELL
- PZ-A — PIEZOMETER
- TW-02R — REMOVED GROUNDWATER MONITORING WELL
- BOUNDARY OF IMPACTED AREA
- GROUNDWATER INFILTRATION TRENCH
- AREA OF RELATIVELY HIGHER CONCENTRATIONS OF COCs

SAMPLE IDENTIFICATION

MW-36						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	130 J	33	–	10	8.0 J
Benzene	–	3.6	4.6	–	4.5	4.2
Toluene	–	1.2 J	1.4 J	–	1.7 J	1.5 J
Ethylbenzene	–	<4.0	0.8 J	–	0.9 J	0.8 J
Xylene	–	1.1 J	5.0	–	5.3	5.5
Methanol	–	<500	<500	–	<500 J	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	3.5	420	1,300	740	480 J	130
N,N-dimethylaniline	1.2	1.7 J	<10	<5.0	3.4 J	3.0
Methylene Chloride	–	<3.0	<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 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 AND 8/07 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.

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 2008 AREAS 1 & 2 (AEROBIC TREATMENT)

ARCADIS

FIGURE 3

CITY:SYRACUSE DIV/GROUP: 141 DB: RCA KLS NES LD: PIC: PM: B.BYRNES TM: LYR: ON=*;OFF=*REF* PAGESETUP: — PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/18/2008 3:06 PM BY: SARTORI, KATHERINE
G:\CAD\ACT\B0028003\0000\00190\DWG\DATA\BPCMR1STHLF08\NO-DRAFT\28003C01.DWG LAYOUT: 3 SAVED: 8/18/2008 3:06 PM ACADVER: 17.0S (LMS TECH)
XREFS: 28003X01 IMAGES: PROJECTNAME: —

MW-27						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	31	21	–	<5.0 J	21
Benzene	–	14	8.4	–	6.6	9.4
Toluene	–	71	9.5	–	4.7 J	23
Ethylbenzene	–	42	14	–	8.6	43
Xylene	–	91	24	–	24	68
Methanol	–	<500	<500	–	<500	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<2.0
Aniline	1,700	33,000	1,100	<10 J	3,000 J	13,000
N,N–dimethylaniline	<10	<210	<10	<1.0	<25 J	<100
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<6.0

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

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

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

PZ-4S		
Date	6/07	3/08
Acetone	<5.0	<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	<5.5	<5.0
N,N–dimethylaniline	<1.1	<0.5
Methylene Chloride	<3.0	<3.0

MW-8SR						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	28	58	–	<5.0 J	<10
Benzene	–	16	14	–	12	5.5
Toluene	–	100	110	–	22	22
Ethylbenzene	–	84	83	–	73	70
Xylene	–	270	250	–	210	160
Methanol	–	<500	<500	–	<500	<500
Trichloroethene	–	<1.0	<2.0	–	<1.0	<2.0
Aniline	52,000	28,000	2,700	17,000	22,000 J	5,800
N,N–dimethylaniline	<520	<200	<22	<100	<100 J	<25
Methylene Chloride	–	<3.0	<6.0	–	<3.0	<6.0

PZ-4D		
Date	6/07	3/08
Acetone	<5.0	<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	<5.5	<5.0
N,N–dimethylaniline	<1.1	<0.5
Methylene Chloride	<3.0	<3.0

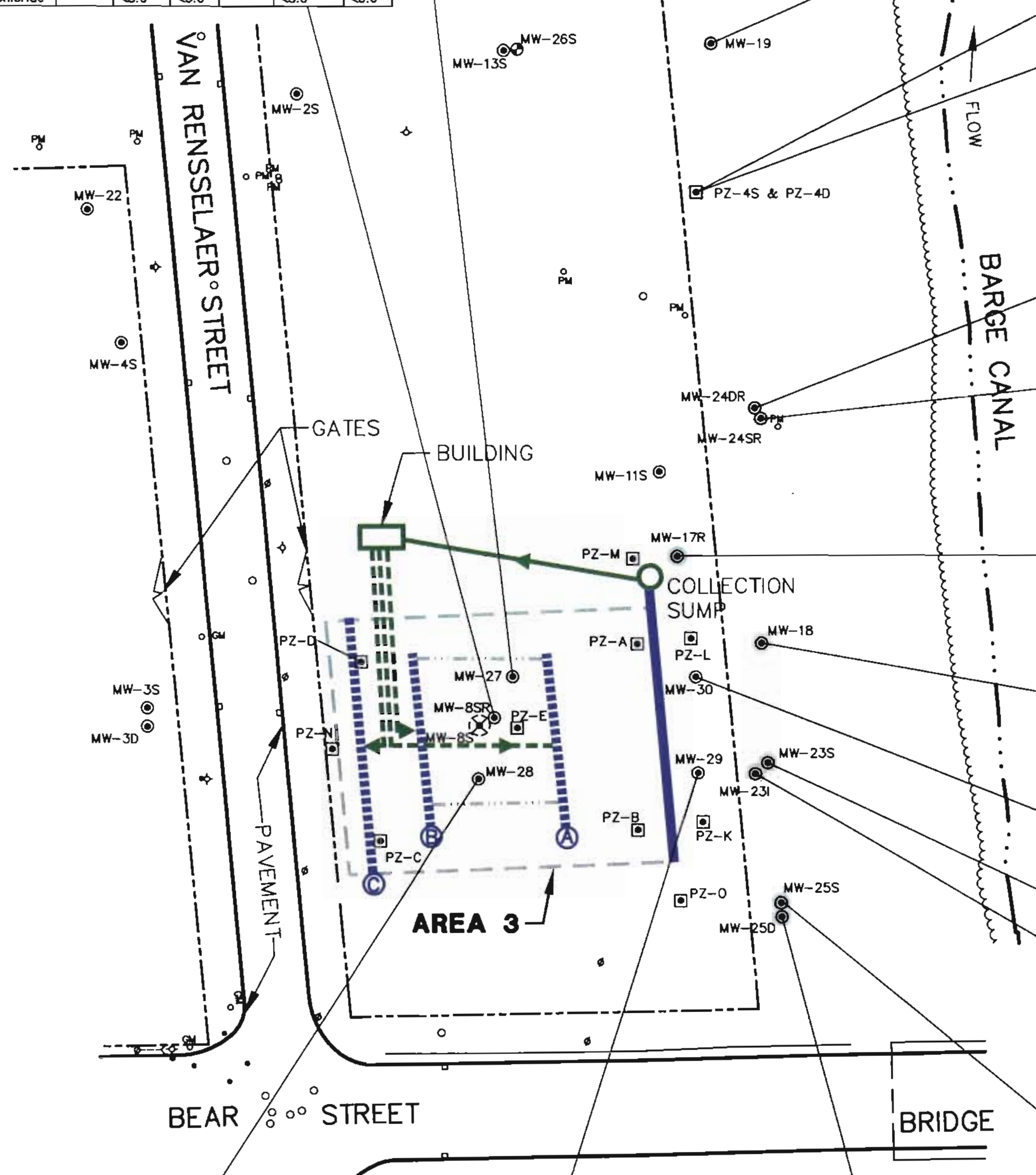
MW-24DR		
Date	11/06	11/07
Acetone	R	<5.0
Benzene	<1.0	<1.0
Toluene	<5.0	<5.0
Ethylbenzene	<4.0	<4.0
Xylene	<5.0	<5.0
Methanol	<500	<500
Trichloroethene	<1.0	<1.0
Aniline	<1.0	<5.0
N,N–dimethylaniline	<1.0 J	<0.5
Methylene Chloride	<3.0	<3.0

MW-24SR		
Date	11/06	11/07
Acetone	R	<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
N,N–dimethylaniline	<1.0 J	<0.5
Methylene Chloride	<3.0	<3.0

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

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

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



LEGEND:

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

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 AND 8/07 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.

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

SAMPLE IDENTIFICATION

MW-28						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	12	13	–	<5.0 J	<5.0
Benzene	–	8.2	4.6	–	4.5	4.0
Toluene	–	1.4 J	0.4 J	–	0.5 J	0.5 J
Ethylbenzene	–	5.6	0.8 J	–	1.4 J	1.6 J
Xylene	–	4.4 J	0.6 J	–	0.8 J	1.3 J
Methanol	–	<500	<500	–	<500	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	280	1,000	60	40	29	81
N,N–dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.5 J	0.9
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

CONCENTRATION (ppb)

0 100' 200'

GRAPHIC SCALE

MW-28						
Date	9/06	11/06	6/07	8/07	11/07	3/08
Acetone	–	12	13	–	<5.0 J	<5.0
Benzene	–	8.2	4.6	–	4.5	4.0
Toluene	–	1.4 J	0.4 J	–	0.5 J	0.5 J
Ethylbenzene	–	5.6	0.8 J	–	1.4 J	1.6 J
Xylene	–	4.4 J	0.6 J	–	0.8 J	1.3 J
Methanol	–	<500	<500	–	<500	<500
Trichloroethene	–	<1.0	<1.0	–	<1.0	<1.0
Aniline	280	1,000	60	40	29	81
N,N–dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.5 J	0.9
Methylene Chloride	–	<3.0	<3.0	–	<3.0	<3.0

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

MW-25D		
Date	6/07	3/08
Acetone	12 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	<5.0
N,N–dimethylaniline	<1.0	<0.5
Methylene Chloride	<3.0	<3.0

MW-25S				
Date	11/06	6/07	11/07	3/08
Acetone	R	<5.0	<5.0	<5.0
Benzene	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0
Xylene	<5.0	<5.0	<5.0	<5.0
Methanol	<500	<500	<500	<500
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Aniline	<1.0	<5.0	<5.0	<5.0
N,N–dimethylaniline	<1.0 J	<1.0	<0.5	<0.5
Methylene Chloride	<3.0	<3.0	<3.0	<3.0

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

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

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

GROUNDWATER MONITORING DATA SUMMARY FOR SEPTEMBER 2006 - JUNE 2008 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE
4

CITY: SYRACUSE DIV/GROUP: 141 DB: RCA KLS NES LD: PIC: PM: B. BYRNES TM: LYR: ON=*;OFF=*REF* PAGESETUP: — PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/18/2008 3:07 PM BY: SARTORI, KATHERINE
G:\CADACT\B0026003\0000\00190\DWG\DATA\BPCMR1STHLF08\NO-DRAFT\26003C02.DWG LAYOUT: 4 SAVED: 8/18/2008 3:07 PM ACADVER: 17.0S (LMS TECH)
XREFS: 26003X01 IMAGES: PROJECTNAME: —

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, 2008 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, 2008 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	8,500	52,000	2,300,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	150,000	<10,000	5,000	33,000	1,600,000
	8/95			<1,000	<250,000D	<250,000D	<250,000D	<250,000D	22,000	60,000 JD	<25,000D	380,000 D	7,700,000 D
	9/98			<10,000 J	<10,000	<10,000	<10,000	<10,000	7,900	3,300 J	1,200 J	26,000 D	140,000
	2/99			<20,000	<20,000	<20,000	<20,000	<20,000	16,000JN	11,000 J	30,000 D	120,000 D	650,000 DB
	7/99			10 J	22 J	240 J	58 J	220 J	17,000	11,000 J	24,000	77,000	450,000 D
	3/00			<100,000	<100,000	<100,000	<100,000	<100,000	30,000 J	<100,000	62,000	270,000 D	1,300,000
	9/00			<50,000 J	<50,000 J	<50,000 J	<50,000 J	<50,000 J	14,000 J	9,200 J	42,000 J	59,000	540,000 BJ
	3/01			<50,000	<50,000	<50,000	<50,000	<50,000	53,000	11,000 J	90,000 D	120,000 D	990,000
	9/01			<400	<400	430	170 J	680	8,900 J	18,000 JD	21,000	29,000	440,000 BD
	4/02			2,100	50 J	410	100 J	400	<1,000	9,300 J	793,000 D	773,000 D	660,000 D
	10/02			120 J	23	310	73	267	<1,000	3,100	80,000	21,000 J	320,000
	5/03			<12	20 J	600 D	81	300	<1,000	6,700 D	79,000 D	29 J	910,000 D
	10/03			21	25	330 D	93	360	1,200 J	3,150 D	67,000 D	24,000 D	400,000 D
	6/04			<25	40	330 EJ	110	400	<1,000	5,900 D	56,000	51,000	1,200,000 D
MW-8SR	11/04	362.7	352.7	<1,200	<500	100 DJ	<500	164 DJ	<1,000	<500	35,000 D	5,300 D	10,000 D
	6/05			61 J	13	100	53	180	<1,000	<1.0	36,000	<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	9.5	18	<1
	8/95			<1,000	11 JD	26 JD	69 D	226 JD	<1,000	<50	56	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, 2008 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-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	2 J	6	17 J	370 J	<5	9	43	<5
	10/02			16 J	38	40	2 J	15 J	<1,000	<10	<5.0	2.0 J	<10
	5/03			<12	11	<5	7	18	<1,000	<5.0	0.9 J	3.0 J	<5
	10/03			<12	2 J	<5	5	19	<1,000	<5.0	1.0 J	<5.0	<5
	6/04			14 J	6 J	2.0 J	8 J	19 J	<1,000	<10	<5.0	<5.0	<10
	11/04			<25	4 J	2 J	9 J	30 J	<1,000	<10	<5.0	<5.0	<10
	6/05			44 J	1.9	3.2 J	24	64	<1,000	<1.0	2.6	1.9	<3.0
	11/05			<1.3 J	3.5	3.8	11	33	<1,000	<0.4	1.4	6.1 J	<0.5
	6/06			<5.0 J	1.1 J	2.3 J	25 J	60 J	<1,000 J	<1.0 J	<1.1 J	3.8 J	<3.0 J
MW-10[D]	1/89	355.5	345.9	<1,000,000	<10,000	<10,000	<10,000	<10,000	210,000	<10,000	720	9,400	520,000
(Replaced by MW-9D)	11/89			<100,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	900	2,400	28,000
	11/91			<100	<1	3.0	2.0	<3.0	<1,000	<1	230	<10	41
	8/95			<1,000	<25 UD	<25 UD	<25 UD	<25 UD	<1,000	<25 UD	<5.0	<10	350 D
MW-11[D]	1/89	355.1	345.5	<100	<1	<1	<1	<1	8,400	<1	<12	<12	1
(Replaced MW-6D)	11/89			<100	<1	<1	<1	<1	<1,000	<1	230	<52	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
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	340,000
	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

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Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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	6	<5	<5	<10	620 J	<5	151 (<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	5.1	<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

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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)[F]**	**200 D (<5)[F]**	<10
	10/02			**6 J**	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	**280 J**	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.7 J**	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	R	R	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
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

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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	--

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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	10 J	60 JN
	5/03			<12	8	11	23	51	<1,000	<5	16,000 DJ	14	43
	10/03			170	5	<5	<5	3 J	<1,000	<5	3,700 D	<5	240 D
	6/04			23 J	5 J	4 J	2 J	6 J	<1,000	<10	3,200 D	20 J	<10
	11/04			<120 (28)	<50 (4 J)	<50 (2 J)	<50 (<10)	<100 (<20)	<1,000	<50 (<10)	1,100 DJ	<5	310 (490 D)
	6/05			31 J	6.1	15	5.8	15	<1,000	<1.0	5,200	<23	<3.0
	11/05			35 J (37 J)	11 (12)	77 (78)	26 (26)	86 (88)	<1,000 (<1,000)	<1.0 (<1.0)	37,000 (38,000)	<270 J (<260 J)	<3.0 (<3.0)
	6/06			5.3 J (5.8 J)	9.5 J (8.9 J)	50 J (48 J)	25 J (25 J)	66 J (63 J)	<1,000 J (<1,000 J)	<1.0 J (<1.0 J)	14,000 J (12,000 J)	<100 J (<100 J)	<3.0 J (<3.0 J)

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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 D[R]	54	64,000 J
	7/99			<500 J	<500	<500	<500	<500	<1,000	<500	1,100 D	40	39,000 D
	3/00			<10,000	<10,000	<10,000	<10,000	<10,000	<1,000 J	<10,000	1,300 D	30	130,000 J
	9/00			<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	540 DJ	<10	8,100 BJ
	3/01			<400	<400	<400	<400	<400	<1,000	<400	3,200 D	7 J	5,900 B
	9/01			<400	<400	<400	<400	<400	<1,000 J	<400	1,000 D	<10	4,700 B
	4/02			<49	8	6	9	10 J	<1,000	<5	33,400 D	57	4,600 D
	10/02			14 J	8 J	6 J	11	12 J	<1,000	<10	2,700 D	R	<10
	5/03			13	4 J	2 J	2 J	8 J	<1,000	<5	1,000 DJ	3 J	52
	10/03			24	11	6	12	13 J	<1,000	<5	1,900 D	<5	<5
	6/04			20 J	4 J	2 J	5 J	4 J	<1,000	<10	910 D	<5	<10
	11/04			<120 (<25)	<50 (4 J)	<50 (<10)	<50 (5 J)	<100 (3 J)	190 J	<50 (<10)	640 DJ	<5	<50 (<10)
	6/05			5.2 J	4.5	1.2 J	4.6	3.9 J	<1,000	<1.0	630	<5.0	<3.0
	11/05			6.8 J (7.8 J)	6.1 (5.8)	<5.0 (<5.0)	4.7 (4.7)	<5.0 (<5.0)	<1,000 (<1,000)	<1.0 (<1.0)	360 J (350 J)	<2.2 (<2.1)	<3.0 (<3.0)
	6/06			<5.0 J (<5.0 J)	6.0 J (6.3 J)	1.2 J (1.3 J)	5.3 J (5.4 J)	4.2 J (4.3 J)	<500 J (<1,000 J)	<1.0 J (<1.0 J)	430 J (530 J)	<2.1 J (<5.0 J)	<3.0 J (<3.0 J)
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, 2008 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	4 J	<10
	9/00			<10 J	12 J	<10 J	<10 J	<10 J	<1,000	<10 J	10	6 J	<10 J
	3/01			21	11	<10	<10	<10	<1,000	<10	<10	5 J	<10
	9/01			<10	14	<10	<10	<10	<1,000 J	<10	91 D	3 J	<10
	4/02			<14	9	<5	<5	<10	<1,000	<5	304 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	55	<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	0.8 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	600 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	450	8 J	<23
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	51	7 J	11
	9/00			45 J	4 J	1 J	<10 J	<10 J	<1,000	<10 J	540 D	23	330 DJ

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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	2,780 D	21	19
	10/02			11 J	4 J	<10	<10	<20	<1,000	<10	290 D	3 J	4 J
	5/03			88	13	<5	<5	<10	<1,000	<5	2,000	35 J	2,800 D
	10/03			22	2 J	<5	<5	<10	<1,000	<5	1,900 D	<6	<5
	6/04			9 J	12 J	<10 J	<10 J	<20 J	<1,000	<10 J	2,700 D	5 J	<10 J
	11/04			--	--	--	--	--	<1,000	--	2,700 D	5 J	--
	6/05			<5.0 J	11	1.0 J	<4.0	<5.0	<1,000	<1.0	1,800	<10	<3.0
	11/05			<5.0 J	16	1.8 J	<4.0	<5.0	<1,000	<1.0	3,500	<25 J	<3.0
	6/06			<5.0 J	6.7 J	0.7 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	370 J	3.5 J	<3.0 J
MW-34	9/98	362.7	354.7	<10	<10	<10	<10	<10	<1,000	<10	83	<10	<10
	7/99			2 J	0.9 J	1 J	<10	<10	<1,000	<10	380 D	2 J	<10
	3/00			<10 J	1 J	2 J	<10	<10	<1,000 J	<10	200 D	3 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	320 D	4 J	<10 J
	3/01			<10	<10	2 J	<10	2 J	<1,000	<10	700 D	5 J	<10
	9/01			7 J	2 J	2 J	<10	2 J	<1,000 J	<10	76	3 J	<10
	4/02			<32	<5	<5	<5	<10	<1,000	<5	640 D	15	<5
	10/02			37 J	<10	<10	<10	<20	<1,000	<10	380 DJ	2 J	<10
	5/03			16	<5	<5	<5	<10	<1,000	<5	140	3 J	<5
	10/03			9 J	<5	<5	<5	<10	<1,000	<5	18	<5	<5
	6/04			24 J	<10	<10	<10	<20	<1,000	<10	30	<5	<10
	11/04			<25	<10	<10	<10	<20	180 J	<10	14	<5	<10
	6/05			5.6 J	0.7 J	0.9 J	<4.0	1.2 J	<1,000	0.4 J	16	2.5	<3.0
	11/05			20 J	<0.3	0.9	<0.5	1.1	<1,000	<0.4	12	2 J	<0.5
	6/06			6.4	0.6 J	0.5 J	<4.0	<5.0	<1,000	<1.0	16	2.3	<3.0
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

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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	868 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	36	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	1,500	<10 J	<3.0
	6/06			25	1.6	0.7 J	<4.0	1.2 J	<1,000	<1.0	76	1.9	<3.0
TW-01	12/96	365.1	355.4	<10	82	4 J	6 J	4 J	<1,000	<10	2,090 D	13	4 J
	9/98			<10	15	<10	4 J	<10	<1,000	<10	4,400 DEJ	4 J	<10
	2/99			<10	24	2 J	2 J	2 J	<1,000	<10	9,000 D	5 J	<10
	7/99			<10	16	1 J	3 J	<10	<1,000	<10	4,400 D	4 J	<10
	3/00			<10	16	<10	<10	<10	<1,000 J	<10	2[illegible] D	4 J	<10
	9/00			<10 J	11 J	<10 J	<10 J	<10 J	<1,000	<10 J	13	2 J	<10 J
	3/01			<10	5 J	<10	<10	<10	<1,000	<10	<10	3 J	<10
	9/01			<10	10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	4/02			<14	3 J	<5	<5	<10	<1,000	<5	8	13	<5
	10/02			<25	7 J	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	7	<5	<5	<10	<1,000	<5	<5	1 J	<5
	10/03			<12	6	<5	<5	<10	<1,000	<5	0.6 J	<5	<5
	6/04			6 J	3 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<25	2 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	1.8	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<1.3 J	1.9	<0.4	<0.5	<0.4	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0 J	1 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	0.8 J	<3.0 J
TW-02[C] (Replaced by TW-02R)[E]	12/96	363.3	353.3	53	10	77	16	65	<1,000	585 D	15,900 JD	3,920 D	42,449 D
	9/98			<500 J	<500 J	<500 J	<500 J	53,000	5,000	300 J	38,000 D	61,000 D	86,000 D
	2/99			<1,000	<1,000	190 J	<1,000	150 J	14,000JN	<1,000	83,000 D	7,900	14,000 B
	7/99			63	37	240 J	34	150	<1,000	55	100,000 D	3,600 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	5,900	13,000
	9/00			190 J	28 J	95 J	35 J	160 J	<1,000	6 J	79,000	<10,000	390 J
	3/01			81	19	68	28	130	<1,000	<10	67,000 D	650 J	400 D
	9/01			57	25	70	31	140	<1,000 J	<20	63,000 D	32	48 B

See notes on page 15.

Table 1. Summary of Historical Groundwater Monitoring Data, 2008 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	10 J	<10
	5/03			240	30	130	49	226	<1,000	<5	160,000 D	230	97
	10/03			68	28	75 J	<5	<10	<1,000	2 J	92,000 D	<260	91
	6/04			140 J	19 J	39 J	31 J	111 J	<1,000	<10 J	82,000	<5,200	4 J
TW-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	8,400	<50	<3.0
	11/05			26 J	6	4.1	3.6	11	<1,000	<0.4	14,000	<110 J	<0.5
	6/06			16	4.4	1.3 J	2.7 J	6.7	<1,000	<1.0	10,000	<100	<3.0
PZ-4D	11/89	350.8	345.9	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	0.8 J	<5
	10/95			NA	<5	<5	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<6	<12	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0	<1.0	0.5 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
PZ-4S	11/89	362.79	357.88	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<18
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<10 J	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	3 J	<10
	4/02			<14	<5	<5	<5	<10	<1,000	<5	8 (<5)[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, 2008 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 Groundwater Monitoring Data, 2008 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

General Notes:

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

Superscript Notes:

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

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

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

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

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

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

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

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

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

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

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 = Tha sample results were rejected.
-- = Sample results are not available. (See Note 9.)

Table 2. Summary of Historical Groundwater Level Measurements, 2008 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

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

See notes on page 4.

Table 2. Summary of Historical Groundwater Level Measurements, 2008 Biannual Process Control Monitoring Report, McKesson Envirosystems Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	12/16/98 Week 22	12/22/98 Week 23	1/6/99 Week 25	1/13/99 Week 26	4/14/99 Week 39	6/3/99 Week 46	7/13/99 Week 52	3/27/00	6/1/00	9/18/00	11/14/00	3/19/01	9/24/01	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	364.18	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	364.61	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	365.46	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	363.87	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	363.86	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	378.13	365.57	365.94	365.65	365.40	366.39	365.56	365.15	366.84	366.73	365.32	365.71	367.12	364.90	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	375.76	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, 2008 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	361.86	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-8D	375.83											
PZ-9D	377.29	364.14	364.79	363.71	365.08	365.64	365.09	365.68	365.35	365.48	366.33	366.19
PZ-A	373.94	363.05	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, 2008 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**
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	64,000 D	79,000	67,000 D	63,000 D	1,090,000 D	80,000 D	160,000 D
N,N-dimethylaniline	3,920 D	61,000 D	7,900	3,500 J	3,900	<10,000	650 J	32	<5,300	10 J	230
Methylene Chloride	42,449 D	86,000 D	14,000 B	9,700 D	13,000	390 J	400 D	48 B	14	<10	97

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

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

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

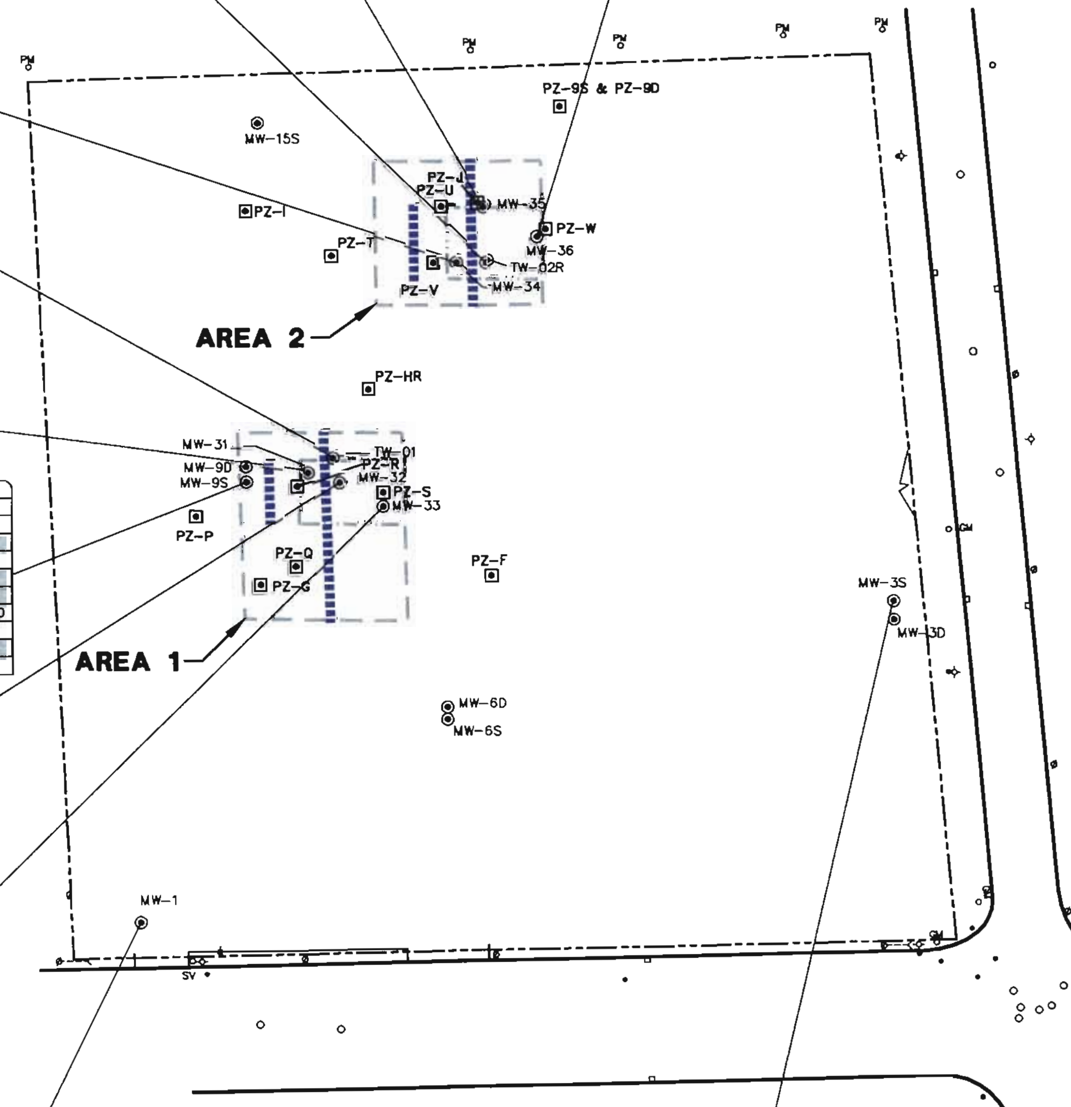
MW-9S												
Date	1/89	11/89	11/91	8/95	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	1,600	<1,000	<100	<1,000	<10	<10	<10 J	<10	<10	<23	16 J	<12
Benzene	NA	48	<10	11 JD	4 J	2 J	11 J	1 J	10	10	38	11
Toluene	64	25	9	26 JD	2 J	2 J	2 J	3 J	3 J	2 J	40	<5
Ethylbenzene	130	60	19	69 D	9 J	11	6 J	17	7 J	6	2 J	7
Xylene	270	60	30	226 JD	18	21	18 J	61	35	17 J	15 J	18
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Aniline	660	670	95	50	<10	2 J	1 J	2 J	<10	9	<5	0.9 J
N,N-dimethylaniline	1,200	150	18	28	5 J	9 J	6 J	11	10	43	2 J	3 J
Methylene Chloride	1,500	<10	<1	110 D	<10	<10	<10 J	<10	<10	<5	<10	<5

MW-32									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	3 J	<10	<10 J	<10	<10	<15	<25	<12
Benzene	16	14	5 J	12 J	5 J	10	4 J	4 J	<5
Toluene	2 J	2 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	5 J	4 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	3 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Trichloroethene	<10	56	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6,300 D	<10	800 D	4,500 D	1,900 D	1,100 D	4,620 D	50	0.6 J
N,N-dimethylaniline	4 J	3 J	<10	<1.0	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	19	4 J	2,800 D

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

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



LEGEND:

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

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.
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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

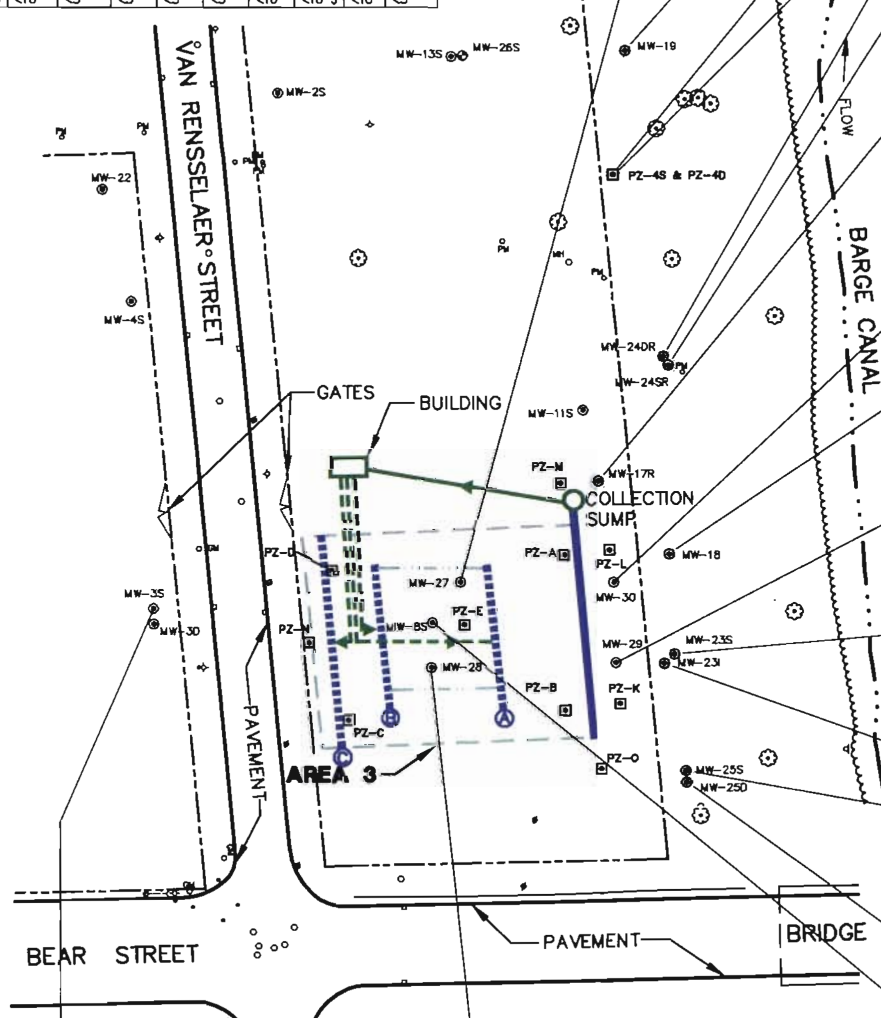
MW-23S																	
Date	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	6/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<1,000	<1,000	<10	<10	12	<10	<10	<10 J	<10 J	<10	<10 J	<10	<10	<10	<25 J	<62
Aniline	<5	<5	<5	7	11	92	56	<10	<10 J	<10	<5	<10 J	<10	<10	<5	<5^	<5
N,N-dimethylaniline	<10	<10	<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	16,000 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	9,600 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	79,000 D
N,N-dimethylaniline	24,000	52,000	33,000	380,000 D	26,000 D	120,000 D	77,000	270,000 D	59,000	120,000 D	29,000	773,000 D	21,000 J	29 J
Methylene Chloride	3,200,000	2,800,000	1,800,000	7,700,000 D	140,000	650,000 DB	450,000 D	1,300,000	540,000 BJ	990,000	440,000 BD	660,000 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	4,000 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	9 J	<10	2 J	<10	690 D (69*)	1.7 J	<5	<5
N,N-dimethylaniline	<10	5,570	440	170	2 J	<10	<10	<10	1 J	<10	4 J	<5	R	<5
Methylene Chloride	110	4,700	2,700	<10	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PM o PETROLEUM PIPE LINE MARKER
- GM o GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- BOUNDARY OF IMPACTED AREA
- GROUNDWATER WITHDRAWAL TRENCH
- (A) GROUNDWATER INFILTRATION TRENCH
- PIPING TO BUILDING
- PIPING FROM BUILDING
- AREA OF RELATIVELY HIGHER CONCENTRATIONS OF COCs

SAMPLE IDENTIFICATION

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

CONCENTRATION (ppb)

NOTES:

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

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	6.7
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<10	0.3 J	<0.4	<1.0
Aniline	7,100 D	8,400	14,000	10,000
N,N-dimethylaniline	<5.0	<50	<110 J	<100
Methylene Chloride	<10	<3.0	<0.5	<3.0

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

MW-36						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	580 D	22 J	13 J	24 J	77 J	25
Benzene	<5.0	<10 J	<10	2.1	3.6	1.6
Toluene	<5.0	<10 J	<10	<5.0	2.0 J	0.7 J
Ethylbenzene	<5.0	<10 J	<10	<4.0	0.6 J	<4.0
Xylene	<10	<20 J	<20	1.0 J	2.8 J	1.2 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10 J	<10	<1.0	<1.0	<1.0
Aniline	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

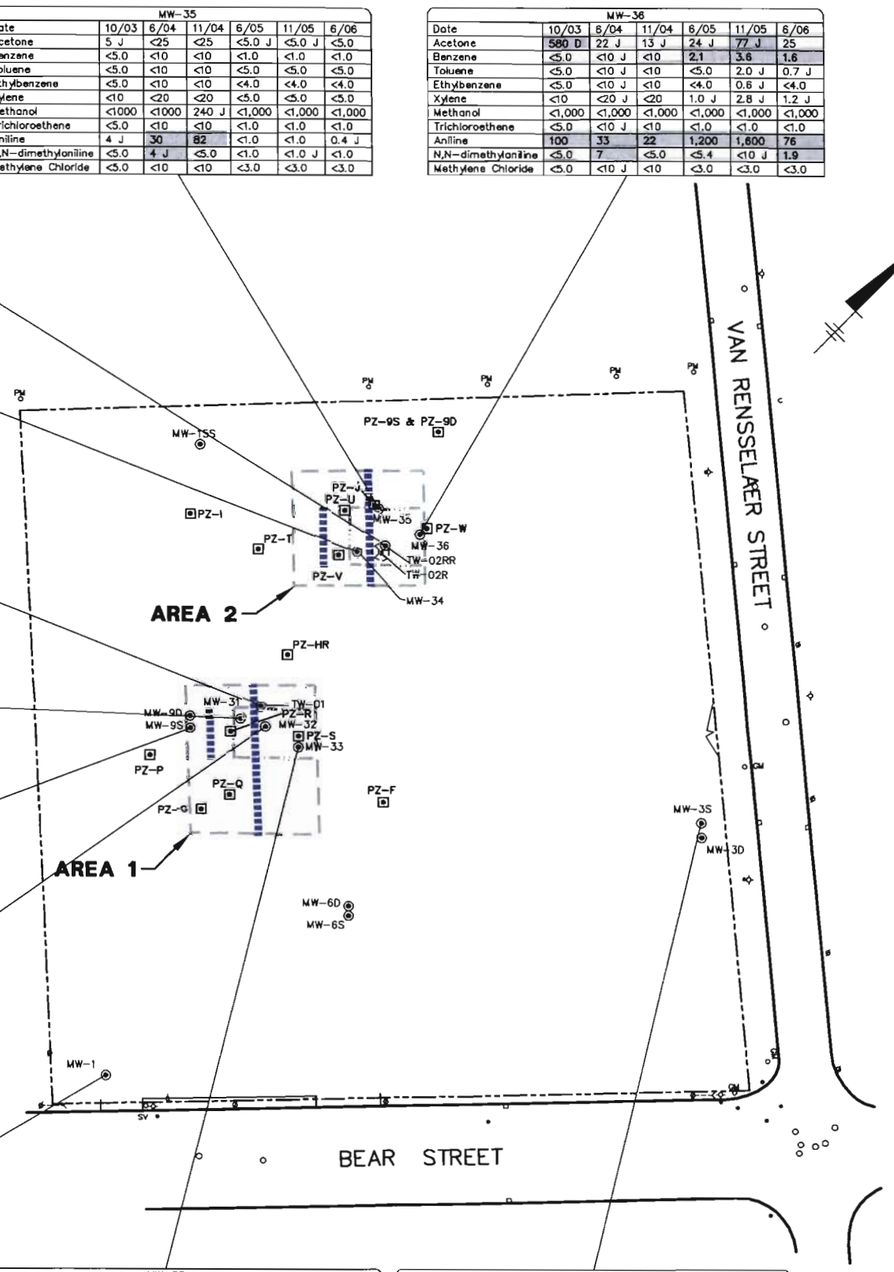
TW-01						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	6 J	<25	<5.0 J	<1.3 J	<5.0 J
Benzene	6	3 J	2 J	1.8	1.9	1 J
Toluene	<5.0	<10	<10	<5.0	<0.4	<5.0 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<10	<20	<20	<5.0	<0.4	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<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	0.6 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<5.0	<20	<20	1.3 J	0.6	1.7 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	88	3 J	<5.0	3.2	16	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	2.7	<1.0 J	2.4 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	3.4

MW-9S						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	14 J	<25	44 J	<1.3 J	<5.0 J
Benzene	2 J	6 J	4 J	1.9	3.5	1.1 J
Toluene	<5	2 J	2 J	3.2 J	3.8	2.3 J
Ethylbenzene	5	8 J	9 J	24	11	25 J
Xylene	19	19 J	30 J	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	<5.0	5 J	5 J	<10	<25 J	3.5 J
Methylene Chloride	<5.0	<10 J	–	<3.0	<3.0	<3.0 J

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

LEGEND:

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

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'

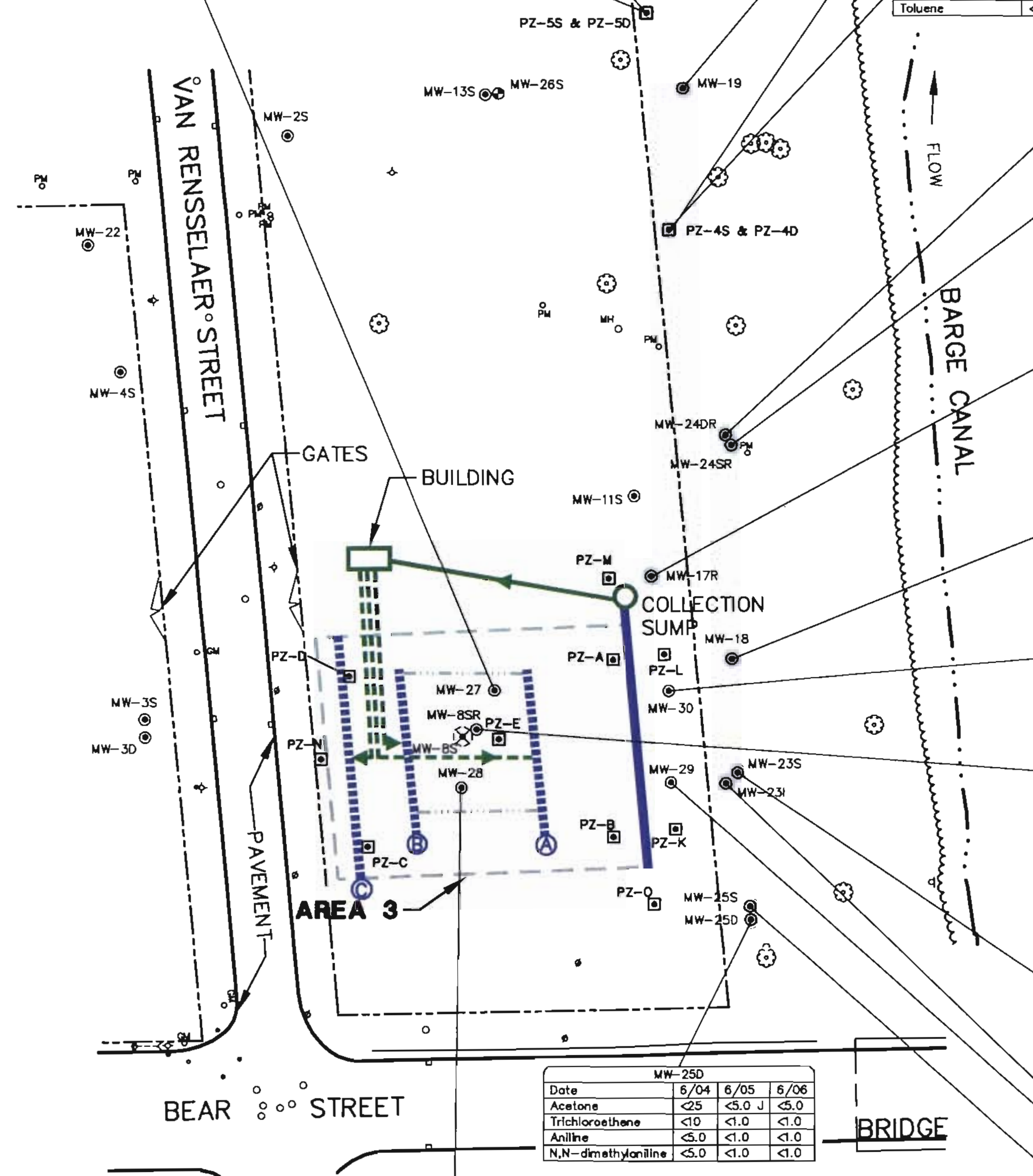
GRAPHIC SCALE

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)	9.5 J (8.9 J)
Toluene	<5.0	4 J	<50 (2 J)	15	77 (78)	50 J (48 J)
Ethylbenzene	<5.0	2 J	<50 (<10)	5.8	26 (26)	25 J (25 J)
Xylene	3 J	6 J	<100 (<20)	15	86 (88)	66 J (63 J)
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000 (<1,000)	<1,000 J (<1,000 J)
Trichloroethene	<5.0	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0 J (<1.0 J)
Aniline	3,700 D	3,700 D	1,100 D J	5,200	37,000 (38,000)	14,000 J (12,000 J)
N,N-dimethylaniline	<5.0	20 J	<5.0	<23	<270 J (<260 J)	<100 J (<100 J)
Methylene Chloride	240 D	<10	310 (490 D)	<3.0	<3.0 (<3.0)	<3.0 J (<3.0 J)

MW-19

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<11	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	51 J	<5.0	<5.0	<1.1	<1.0	<1.0
N,N-dimethylaniline	16 J	<5.0	<5.0	<1.1	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

MW-24DR

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

PZ-5D

Date	10/03	6/04	11/04	6/05	11/05
Aniline	46	<5.0	<5.0	<1.0	<1.0

PZ-5S

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

PZ-4S

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

PZ-4D

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

MW-24SR

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

MW-17R

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

MW-18

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

MW-30

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

MW-8S

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

MW-8SR

Date	11/04	6/05	11/05	6/06
Acetone	<1,200	81 J	15 J	48
Benzene	<500	13	13	15
Toluene	100 DJ	100	130	120
Ethylbenzene	<500	53	66	79
Xylene	164 DJ	180	260	260
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<500	<1.0	<1.0	<1.0
Aniline	35,000 D	30,000	32,000	23,000
N,N-dimethylaniline	5,300 D	<200	<260 J	<200
Methylene Chloride	10,000 D	<3.0	<3.0	<3.0

MW-23S

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

MW-25D

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

MW-28

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

MW-25S

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

MW-29

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

LEGEND:

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

MW-8S (key to data boxes: SAMPLE IDENTIFICATION; CONCENTRATION (ppb))

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

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

NOTES:

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

0 100' 200'
GRAPHIC SCALE

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

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

ARCADIS

FIGURE 4

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LAF NES LD: PIC: PM: B.BYRNES TM: LYR: ON=*;OFF=*REF*
G:\CADACT\B0026003\0000\0109\DWG\REPORT\BIANNUAL\HISTORICAL\NO-DRAFT\26003C04.DWG LAYOUT: 4 SAVED: 7/18/2008 2:53 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/18/2008 2:53 PM BY: SMITHGALL, NANCY
XREFS: 26003X01 26003X00 IMAGES: PROJECTNAME: —

ARCADIS

Attachment B

Validated Analytical Laboratory Reports

DATA USABILITY SUMMARY REPORT

MCKESSON

BEAR STREET

SDG #S382

VOLATILE, SEMIVOLATILE AND
METHANOL ANALYSES

Analyses performed by:

TestAmerica Laboratories
Edison, New Jersey

Review performed by:

ARCADIS
Infrastructure, environment, facilities

Syracuse, New York
Report #8322R

Summary

The following is an assessment of the data package for sample delivery group (SDG) #S382 for sampling from the McKesson Bear Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOC	SVOC	PCB	MET	MISC
MW-1	908026	WATER	3/25/2008	X	X			X
MW-9S	908027	WATER	3/25/2008	X	X			X
MW-31	908028	WATER	3/25/2008	X	X			X
TW-01	908029	WATER	3/25/2008	X	X			X
MW-32	908030	WATER	3/25/2008	X	X			X
MW-33	908031	WATER	3/25/2008	X	X			X
MW-36	908032	WATER	3/25/2008	X	X			X
MW-35	908033	WATER	3/25/2008	X	X			X
Trip Blank	908034	WATER	3/25/2008	X				

Notes:

1. Miscellaneous parameters include methanol.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260 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:

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

J The compound was positively identified; however, 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.

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

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.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

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.

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.

Data Assessment

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.
	Soil	14 days from collection to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, 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. Trip blanks measure contamination of samples during shipment. 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.

No target compounds were detected in the associated blanks.

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 then 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 MW-1 MW-9S MW-31 MW-33 MW-32 MW-36 MW-35 TW-01	CCV %D	Acetone	-41.2

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. ketones, 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 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 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 MS/MSD recoveries for all target compounds.

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 and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

A field duplicate was not included with this data set.

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

Volatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Was one or more surrogate recovery outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 32			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 16			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each day or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every 12 hours for each system used?	X		
Do any method/instrument blanks have positive results?		X	
Are trip/field/rinse blanks associated with every sample?		X	
Do any trip/field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for BFB?	X		

	YES	NO	NA
Are the bar graph spectrum and mass/charge listing provided for each BFB?	X		
Has a BFB been analyzed for each 12 hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRFs minimum requirements met?	X		

	YES	NO	NA
Are there any transcription/calculation errors in reporting the RRFs or RSDs?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?		X	
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?		X	

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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:

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

J The compound was positively identified; however, 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.

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

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.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

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.

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 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.

Data Assessment

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 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.

No target compounds were detected in the associated QA blanks.

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 then 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-36	2-Fluorophenol	AC
	Phenol-d5	AC
	2,4,6-Tribromophenol	<LL but >10%
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC
MW-1	2-Fluorophenol	AC
	Phenol-d5	AC
	2,4,6-Tribromophenol	<LL but >10%
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC

Acceptable (AC)
Diluted (D)

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 (upper control limit)	Non-detect	No Action
	Detect	J
< LL (lower control limit) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J
One of three surrogate exhibiting recovery outside the control limits but greater than 10%.	Non-detect	No Action
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	No Action
	Detect	

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.

The MS/MSD exhibited acceptable recoveries and RPD between MS/MSD recoveries for all target compounds.

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 sample locations exhibited acceptable LCS recoveries.

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 and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

A field duplicate was not included with this data set.

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

Semivolatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Were two or more base-neutral or acid surrogate recoveries outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were MSs analyzed at the required frequency	X		
How many spike recoveries were outside of QC limits?			
0 out of 32			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 16			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed for each system used?	X		
Do any method blanks have positive results?	X		
Are field/rinse blanks associated with every sample?		X	
Do any field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for DFTPP?	X		
Are the bar graph spectrum and mass/charge listing provided for each			

	YES	NO	NA
DFTPP?	X		
Has a DFTPP been analyzed for each 12 hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRF minimum requirements met?	X		
Are there any transcription/calculation error in reporting the RRF or RSD?		X	

	YES	NO	NA
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?		X	

MISCELLANEOUS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8015 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994.

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 National Functional Guidelines:

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

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

B The reported value was obtained from a reading less than the RL but greater than or equal to the IDL.

M Duplicate injection precision not met.

N Spiked sample recovery not within control limits.

* Duplicate analysis not within control limits.

E The reported value is estimated due to the presence of interference.

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.

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.

Data Assessment

1. Holding Times

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

Method	Matrix	Holding Time
Methanol by SW846 8015	Water	7 days from collection to extraction, 40 days from extraction to analysis
	Soil	14 days from collection to extraction, 40 days from extraction to analysis

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.

No analytes were detected above the reporting limit in the associated blanks.

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. 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.

5. 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 LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The laboratory control sample exhibited results within the control limit.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

A field duplicate was not included with this data set.

7. 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

Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Was one or more surrogate recovery outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
_0_ out of _2_			
How many RPDs for MS/MSD were outside of QC limits?			
_0_ out of _1_			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each day or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every 12 hours for each system used?	X		
Do any method/instrument blanks have positive results?		X	
Are trip/field/rinse blanks associated with every sample?		X	
Do any trip/field/rinse blanks have positive results?			X

	YES	NO	NA
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?			X
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?			X
Do the samples and standard relative ion intensities agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRFs minimum requirements met?	X		
Are there any transcription/calculation errors in reporting the RRFs or RSDs?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Field Duplicates			
Were field duplicates submitted with the samples?		X	

Corrected Sample Analysis Data Sheets

Client ID: **MW-1**
Site: Syracuse

Lab Sample No: **908026**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17140.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	3.0
Acetone	ND J	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-9S**
Site: Syracuse

Lab Sample No: **908027**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17141.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	3.0
Acetone	ND J	5.0
Trichloroethene	1.2	1.0
Benzene	1.1	1.0
Toluene	3.0J	5.0
Ethylbenzene	37	4.0
Xylene (Total)	73	5.0

Client ID: **MW-31**
Site: Syracuse

Lab Sample No: **908028**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17142.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 J	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	2.0	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **TW-01**
Site: Syracuse

Lab Sample No: **908029**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17143.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	3.0
Acetone	ND J	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-32**
Site: Syracuse

Lab Sample No: **908030**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17144.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	3.0
Acetone	ND J	5.0
Trichloroethene	ND	1.0
Benzene	0.8J	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-33**
Site: Syracuse

Lab Sample No: **908031**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17145.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	3.0
Acetone	ND J	5.0
Trichloroethene	ND	1.0
Benzene	4.1	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-36**
Site: Syracuse

Lab Sample No: **908032**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17146.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	3.0
Acetone	8.0 J	5.0
Trichloroethene	ND	1.0
Benzene	4.2	1.0
Toluene	1.5J	5.0
Ethylbenzene	0.8J	4.0
Xylene (Total)	5.5	5.0

Client ID: **MW-35**
Site: Syracuse

Lab Sample No: **908033**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17147.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	3.0
Acetone	ND J	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **Trip_Blank**
Site: Syracuse

Lab Sample No: **908034**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17139.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	3.0
Acetone	ND J	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-1**
Site: Syracuse

Lab Sample No: **908026**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3022.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: Syracuse

Lab Sample No: **908027**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3023.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	0.7J	5.0
N,N-Dimethylaniline	6.8	0.5

Client ID: **MW-31**
Site: Syracuse

Lab Sample No: **908028**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3024.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	0.2J	5.0
N,N-Dimethylaniline	1.6	0.5

Client ID: **TW-01**
Site: Syracuse

Lab Sample No: **908029**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3025.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	1.0	0.5

Client ID: **MW-32**
Site: Syracuse

Lab Sample No: **908030**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3026.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	0.8	0.5

Client ID: **MW-33**
Site: Syracuse

Lab Sample No: **908031**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3029.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	4.1	0.5

Client ID: **MW-36**
Site: Syracuse

Lab Sample No: **908032**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3034.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	130	10
N,N-Dimethylaniline	3.0	1.0

Client ID: **MW-35**
Site: Syracuse

Lab Sample No: **908033**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3027.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-1**
Site: Syracuse

Lab Sample No: **908026**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2681.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: Syracuse

Lab Sample No: **908027**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2682.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: Syracuse

Lab Sample No: **908028**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2683.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-01**
Site: Syracuse

Lab Sample No: **908029**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2684.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-32**
Site: Syracuse

Lab Sample No: **908030**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2685.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: Syracuse

Lab Sample No: **908031**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2686.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: Syracuse

Lab Sample No: **908032**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2687.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-35**
Site: Syracuse

Lab Sample No: **908033**
Lab Job No: S382

Date Sampled: 03/25/08
Date Received: 03/26/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2688.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

Laboratory Narrative

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Rd
Edison, NJ 08817
Ph. 732 549-3900 * *Fax* 732 549-367

SDG NARRATIVE

TESTAMERICA

SDG No. S382

TestAmericaEdison Sample	Client ID
908026	MW-1
908027	MW-9S
908028	MW-31
908029	TW-01
908030	MW-32
908031	MW-33
908032	MW-36
908033	MW-35
908034	Trip_Blank

Sample Receipt:

Sample delivery conforms to requirements.

Volatile Organic Analysis (GC/MS):

All data conforms to method requirements.

Base/Neutral and/or Acid Extractable Organics (GC/MS):

All data conforms to method requirements.

4/15/2008

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Rd
Edison, NJ 08817
Ph. 732 549-3900 * *Fax* 732 549-3675

Nonhalogenated Organic Analysis (GC/FID):

DAI sample# 908497MS/MSD: surrogate standard recovery is outside of Q.C. limits.

I certify that this data package is in compliance with the terms of the contract NY ASP B both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the laboratory manager or his designee.

Janae McCloud
Project Manager

4/15/2008

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
908026	WATER	3/25/08	3/26/08		3/28/08
908027	WATER	3/25/08	3/26/08		3/28/08
908028	WATER	3/25/08	3/26/08		3/28/08
908029	WATER	3/25/08	3/26/08		3/28/08
908030	WATER	3/25/08	3/26/08		3/28/08
908031	WATER	3/25/08	3/26/08		3/28/08
908032	WATER	3/25/08	3/26/08		3/28/08
908033	WATER	3/25/08	3/26/08		3/28/08
908034	WATER	3/25/08	3/26/08		3/28/08

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
908026	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908027	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908028	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908029	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908030	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908031	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908032	WATER	3/25/08	3/26/08	3/28/08	3/31/08
908033	WATER	3/25/08	3/26/08	3/28/08	3/31/08

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
908026	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908026	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908027	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908027	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908028	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908028	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908029	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908029	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908030	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908030	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908031	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908031	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908032	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908032	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		2.00
908033	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908033	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		

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	
S382	3/25/2008	1989	MW-1	Water	No	No	--	--	Yes	VOC - ccal SVOC – surrogate[2]
S382	3/25/2008	1989	MW-9S	Water	No	Yes	--	--	Yes	VOC – ccal
S382	3/25/2008	1989	MW-31	Water	No	Yes	--	--	Yes	VOC - ccal
S382	3/25/2008	1989	TW-01	Water	No	Yes	--	--	Yes	VOC - ccal
S382	3/25/2008	1989	MW-32	Water	No	Yes	--	--	Yes	VOC - ccal
S382	3/25/2008	1989	MW-33	Water	No	Yes	--	--	Yes	VOC – ccal
S382	3/25/2008	1989	MW-36	Water	No	No	--	--	Yes	VOC – ccal SVOC – surrogate[2]
S382	3/25/2008	1989	MW-35	Water	No	Yes	--	--	Yes	VOC – ccal
S382	3/25/2008	1989	Trip Blank	Water	No	--	--	--	--	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.

2 The deviation did not result in any qualification of the data.

DATA USABILITY SUMMARY REPORT

MCKESSON

BEAR STREET

SDG #S449

VOLATILE, SEMIVOLATILE AND
METHANOL ANALYSES

Analyses performed by:

TestAmerica Laboratories
Edison, New Jersey

Review performed by:

ARCADIS
Infrastructure, environment, facilities

Syracuse, New York
Report #8321R

Summary

The following is an assessment of the data package for sample delivery group (SDG) #S449 for sampling from the McKesson Bear Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOC	SVOC	PCB	MET	MISC
DUP-1	908495	WATER	3/26/2008	X	X			X
MW-34	908496	WATER	3/26/2008	X	X			X
TW-02RR	908497	WATER	3/26/2008	X	X			X
MW-3S	908498	WATER	3/26/2008	X	X			X
MW-29	908499	WATER	3/26/2008	X	X			X
MW-28	908500	WATER	3/26/2008	X	X			X
MW-30	908501	WATER	3/26/2008	X	X			X
MW-17R	908502	WATER	3/26/2008	X	X			X
TB	908601	WATER	3/26/2008	X	--			--

Notes:

1. Miscellaneous parameters include methanol.
2. Sample location DUP-1 is the field duplicate of parent sample location TW-02RR.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260 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:

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

J The compound was positively identified; however, 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.

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

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.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

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.

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.

Data Assessment

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.
	Soil	14 days from collection to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, 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. Trip blanks measure contamination of samples during shipment. 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.

No target compounds were detected in the associated blanks.

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 then 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.

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 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 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 MS/MSD recoveries for all target compounds.

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 and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RR/DUP-1	Acetone	6.4	5.2	20.6%
	Benzene	4.5	2.3	64.7%
	Toluene	1.3 J	0.7 J	AC
	Ethylbenzene	3.8 J	1.9 J	AC
	Xylene (Total)	10	4.8 J	AC

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

The calculated RPDs between the parent sample and field duplicate were unacceptable for benzene. Sample results for benzene were qualified as estimated associated with sample locations TN-02RR and DUP-1 based on the field duplicate RPD.

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

Volatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Was one or more surrogate recovery outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 32			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 16			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each day or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every 12 hours for each system used?	X		
Do any method/instrument blanks have positive results?		X	
Are trip/field/rinse blanks associated with every sample?	X		
Do any trip/field/rinse blanks have positive results?		X	
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for BFB?	X		

	YES	NO	NA
Are the bar graph spectrum and mass/charge listing provided for each BFB?	X		
Has a BFB been analyzed for each 12 hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		

	YES	NO	NA
Are the average RRFs minimum requirements met?	X		
Are there any transcription/calculation errors in reporting the RRFs or RSDs?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?	X		

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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:

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

J The compound was positively identified; however, 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.

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

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.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

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.

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 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.

Data Assessment

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 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.

No compounds were detected in the associated blanks.

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 then 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
TW-02RR DUP-1	2-Fluorophenol	D
	Phenol-d5	
	2,4,6-Tribromophenol	
	Nitrobenzene-d5	
	2-Fluorobiphenyl	
	Terphenyl-d14	

Acceptable (AC)
Diluted (D)

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 (upper control limit)	Non-detect	No Action
	Detect	J
< LL (lower control limit) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J
One of three surrogate exhibiting recovery outside the control limits but greater than 10%.	Non-detect	No Action
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	No Action
	Detect	

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.

The MS/MSD exhibited acceptable recoveries and RPD between MS/MSD recoveries for all target compounds.

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 sample locations exhibited acceptable LCS recoveries.

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 and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RR/DUP-1	Aniline	7500	5400	32.1%

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

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

Semivolatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Were two or more base-neutral or acid surrogate recoveries outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?	X		
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were MSs analyzed at the required frequency	X		
How many spike recoveries were outside of QC limits?			
0 out of 32			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 16			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed for each system used?	X		
Do any method blanks have positive results?		X	
Are field/rinse blanks associated with every sample?		X	
Do any field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for DFTPP?	X		

	YES	NO	NA
Are the bar graph spectrum and mass/charge listing provided for each DFTPP?	X		
Has a DFTPP been analyzed for each 12 hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRF minimum requirements met?	X		

	YES	NO	NA
Are there any transcription/calculation error in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?	X		

MISCELLANEOUS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8015 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994.

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 National Functional Guidelines:

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

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

B The reported value was obtained from a reading less than the RL but greater than or equal to the IDL.

M Duplicate injection precision not met.

N Spiked sample recovery not within control limits.

* Duplicate analysis not within control limits.

E The reported value is estimated due to the presence of interference.

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.

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.

Data Assessment

1. Holding Times

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

Method	Matrix	Holding Time
Methanol by SW846 8015	Water	7 days from collection to extraction, 40 days from extraction to analysis
	Soil	14 days from collection to extraction, 40 days from extraction to analysis

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.

No analytes were detected above the reporting limit in the associated blanks.

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. 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.

5. 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 LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The laboratory control sample exhibited results within the control limit.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RR/DUP-1	Methanol	ND	ND	AC

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one 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.

7. 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

Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Was one or more surrogate recovery outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 2			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 1			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each day or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every 12 hours for each system used?	X		
Do any method/instrument blanks have positive results?		X	
Are trip/field/rinse blanks associated with every sample?		X	
Do any trip/field/rinse blanks have positive results?			X

	YES	NO	NA
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?			X
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?			X
Do the samples and standard relative ion intensities agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRFs minimum requirements met?	X		
Are there any transcription/calculation errors in reporting the RRFs or RSDs?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Corrected Sample Analysis Data Sheets

Client ID: **DUP-1**
Site: Bear Street

Lab Sample No: **908495**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17200.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	3.0
Acetone	5.2	5.0
Trichloroethene	ND	1.0
Benzene	2.3 J	1.0
Toluene	0.7J	5.0
Ethylbenzene	1.9J	4.0
Xylene (Total)	4.8J	5.0

Client ID: **MW-34**
Site: Bear Street

Lab Sample No: **908496**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17189.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	3.0
Acetone	16	5.0
Trichloroethene	ND	1.0
Benzene	1.0J	1.0
Toluene	0.5J	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	1.1J	5.0

Client ID: TN-02RR
Site: Bear Street

Lab Sample No: 908497
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17183.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	3.0
Acetone	6.4	5.0
Trichloroethene	ND	1.0
Benzene	4.5J	1.0
Toluene	1.3J	5.0
Ethylbenzene	3.8J	4.0
Xylene (Total)	10	5.0

Client ID: **MW-3S**
Site: Bear Street

Lab Sample No: **908498**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17184.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-29**
Site: Bear Street

Lab Sample No: **908499**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17185.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-28**
Site: Bear Street

Lab Sample No: **908500**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17186.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	4.0	1.0
Toluene	0.5J	5.0
Ethylbenzene	1.6J	4.0
Xylene (Total)	1.3J	5.0

Client ID: **MW-30**
Site: Bear Street

Lab Sample No: **908501**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17187.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	0.6J	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	0.2J	5.0

Client ID: **MW-17R**
Site: Bear Street

Lab Sample No: **908502**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17188.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **TB**
Site: Bear Street

Lab Sample No: **908601**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/31/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17170.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
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **DUP-1**
Site: Bear Street

Lab Sample No: **908495**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3055.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	5400	500
N,N-Dimethylaniline	ND	50

Client ID: **MW-34**
Site: Bear Street

Lab Sample No: **908496**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3016.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	24	5.0
N,N-Dimethylaniline	1.3	0.5

Client ID: TN-02RR
Site: Bear Street

Lab Sample No: 908497
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3028.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	7500	500
N,N-Dimethylaniline	ND	50

Client ID: **MW-3S**
Site: Bear Street

Lab Sample No: **908498**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3017.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: Bear Street

Lab Sample No: **908499**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3018.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-28**
Site: Bear Street

Lab Sample No: **908500**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3019.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	81	5.0
N,N-Dimethylaniline	0.9	0.5

Client ID: **MW-30**
Site: Bear Street

Lab Sample No: **908501**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3020.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	3.0J	5.0
N,N-Dimethylaniline	0.7	0.5

Client ID: **MW-17R**
Site: Bear Street

Lab Sample No: **908502**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Extracted: 03/28/08
Date Analyzed: 03/31/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3021.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-1**
Site: Bear Street

Lab Sample No: **908495**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2690.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: Bear Street

Lab Sample No: **908496**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2691.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: Bear Street

Lab Sample No: 908497
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2692.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: Bear Street

Lab Sample No: **908498**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2697.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: Bear Street

Lab Sample No: **908499**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2698.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: Bear Street

Lab Sample No: **908500**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2699.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-30**
Site: Bear Street

Lab Sample No: **908501**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2700.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: Bear Street

Lab Sample No: **908502**
Lab Job No: S449

Date Sampled: 03/26/08
Date Received: 03/27/08
Date Analyzed: 03/28/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2701.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

Laboratory Narrative

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Rd
Edison, NJ 08817
Ph. 732 549-3900 * *Fax* 732 549-3679

SDG NARRATIVE

TESTAMERICA EDISON

SDG No S449

TestAmerica Sample	Client ID
908495	DUP-1
908496	MW-34
908497	TN-02RR
928498	MW-3S
928499	MW-29
928500	MW-28
928501	MW-30
928502	MW-17R
928601	TB

Sample Receipt:

Sample delivery conforms to requirements.

Volatile Organic Analysis (GC/MS):

All data conforms with method requirements.

Base/Neutral and/or Acid Extractable Organics (GC/MS):

Samples#908495,497:surrogate recovery diluted out.

Nonhalogenated Organic Analysis (GC/FID):

DAI sample#908497MS/MSD :surrogate standard recovery is outside of Q.C.limits.

I certify that this data package is in compliance with the terms of the contract NY ASP B both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the laboratory manager or his designee.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Rd
Edison, NJ 08817
Ph. 732 549-3900 * *Fax* 732 549-3679

Janae McCloud
Project Manager

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
908495	WATER	3/26/08	3/27/08		3/31/08
908496	WATER	3/26/08	3/27/08		3/31/08
908497	WATER	3/26/08	3/27/08		3/31/08
908497MS	WATER	3/26/08	3/27/08		3/31/08
908497SD	WATER	3/26/08	3/27/08		3/31/08
908498	WATER	3/26/08	3/27/08		3/31/08
908499	WATER	3/26/08	3/27/08		3/31/08
908500	WATER	3/26/08	3/27/08		3/31/08
908501	WATER	3/26/08	3/27/08		3/31/08
908502	WATER	3/26/08	3/27/08		3/31/08
908601	WATER	3/26/08	3/27/08		3/31/08

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
908495	WATER	3/26/08	3/27/08	3/28/08	4/1/08
908496	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908497	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908497MS	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908497SD	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908498	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908499	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908500	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908501	WATER	3/26/08	3/27/08	3/28/08	3/31/08
908502	WATER	3/26/08	3/27/08	3/28/08	3/31/08

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
908495	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908495	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
908496	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908496	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908497	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
908497	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908497MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908497MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
908497SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908497SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
908498	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908498	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908499	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908499	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908500	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908500	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908501	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908501	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908502	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908502	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		

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	
S449	3/26/2008	1989	DUP-1	Water	No	No	--	--	Yes	VOC – field duplicate RPD SVOC – surrogate[2]
S449	3/26/2008	1989	MW-34	Water	Yes	Yes	--	--	Yes	
S449	3/26/2008	1989	TW-02RR	Water	No	No	--	--	Yes	VOC – field duplicate RPD SVOC – surrogate[2]
S449	3/26/2008	1989	MW-3S	Water	Yes	Yes	--	--	Yes	
S449	3/26/2008	1989	MW-29	Water	Yes	Yes	--	--	Yes	
S449	3/26/2008	1989	MW-28	Water	Yes	Yes	--	--	Yes	
S449	3/26/2008	1989	MW-30	Water	Yes	Yes	--	--	Yes	
S449	3/26/2008	1989	MW-17R	Water	Yes	Yes	--	--	Yes	
S449	3/26/2008	1989	TB	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.

DATA USABILITY SUMMARY REPORT

MCKESSON

BEAR STREET

SDG #S510

VOLATILE, SEMIVOLATILE AND
METHANOL ANALYSES

Analyses performed by:

TestAmerica Laboratories
Edison, New Jersey

Review performed by:

ARCADIS
Infrastructure, environment, facilities

Syracuse, New York
Report #8323R

Summary

The following is an assessment of the data package for sample delivery group (SDG) #S510 for sampling from the McKesson Bear Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOC	SVOC	PCB	MET	MISC
MW-27	908888	WATER	3/27/2008	X	X			X
MW-8SR	908889	WATER	3/27/2008	X	X			X
DUP-2	908890	WATER	3/27/2008	X	X			X
MW-18	908891	WATER	3/27/2008	X	X			X
MW-19	908892	WATER	3/27/2008	X	X			X
MW-23I	908893	WATER	3/27/2008	X	X			X
MW-25D	908894	WATER	3/27/2008	X	X			X
MW-25S	908895	WATER	3/27/2008	X	X			X
MW-23S	908896	WATER	3/27/2008	X	X			X
PZ-4D	908897	WATER	3/27/2008	X	X			X
PZ-4S	908898	WATER	3/27/2008	X	X			X

Notes:

1. Miscellaneous parameters include methanol.
2. Sample location DUP-2 is the field duplicate of parent sample location MW-8SR.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260 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:

U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	The compound was positively identified; however, 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.
N	The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
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.
E	The compound was quantitated above the calibration range.
D	Concentration is based on a diluted sample analysis.
C	Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
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.
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.

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.
	Soil	14 days from collection to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, 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. Trip blanks measure contamination of samples during shipment. 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.

No target compounds were detected in the associated blanks.

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 then 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.

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 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 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 MS/MSD recoveries for all target compounds.

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 and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/DUP-2	Acetone	ND (10)	9.6 J	AC
	Benzene	5.5	5.7	3.5%
	Toluene	22	22	0.0%
	Ethylbenzene	70	68	2.9%
	Xylene (Total)	160	160	0.0%

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

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

Volatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Was one or more surrogate recovery outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
2 out of 32			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 16			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each day or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every 12 hours for each system used?	X		
Do any method/instrument blanks have positive results?		X	
Are trip/field/rinse blanks associated with every sample?		X	
Do any trip/field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for BFB?	X		

	YES	NO	NA
Are the bar graph spectrum and mass/charge listing provided for each BFB?	X		
Has a BFB been analyzed for each 12 hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRFs minimum requirements met?	X		

	YES	NO	NA
Are there any transcription/calculation errors in reporting the RRFs or RSDs?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?	X		

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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:

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

J The compound was positively identified; however, 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.

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

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.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

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.

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 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.

Data Assessment

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 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.

Target compounds were detected in the associated QA blanks. Sample results associated with blank contamination that were greater than the BAL and/or non-detect did not result in any qualification of data. The "B" qualifier was removed when sample results were greater than the BAL. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
MW-23S	Aniline	Detected sample results <RL and <BAL	"U" at the PQL

RL = reporting limit

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 then 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 DUP-2	2-Fluorophenol	D
	Phenol-d5	
	2,4,6-Tribromophenol	
	Nitrobenzene-d5	
	2-Fluorobiphenyl	
	Terphenyl-d14	
MW-18 MW-19	2-Fluorophenol	>UL
	Phenol-d5	>UL
	2,4,6-Tribromophenol	AC
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC

Acceptable (AC)
Diluted (D)

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 (upper control limit)	Non-detect	No Action
	Detect	J

Control Limit	Sample Result	Qualification
< LL (lower control limit) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J
One of three surrogate exhibiting recovery outside the control limits but greater than 10%.	Non-detect	No Action
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	No Action
	Detect	

Since the deviant surrogates associated with sample locations MW-18 and MW-19 were not associated with any target compounds, no sample results were qualified in those samples based on surrogate deviations.

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.

The MS/MSD exhibited acceptable recoveries and RPD between MS/MSD recoveries for all target compounds.

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 sample locations exhibited acceptable LCS recoveries.

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 and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/DUP-2	Aniline	5800	5200	10.9%

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

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

Semivolatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Were two or more base-neutral or acid surrogate recoveries outside control limits for any sample or blank?	X		
If yes, were the samples reanalyzed?		X	
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were MSs analyzed at the required frequency	X		
How many spike recoveries were outside of QC limits?			
3 out of 32			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 16			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed for each system used?	X		
Do any method blanks have positive results?	X		
Are field/rinse blanks associated with every sample?		X	
Do any field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for DFTPP?	X		
Are the bar graph spectrum and mass/charge listing provided for each			

	YES	NO	NA
DFTPP?	X		
Has a DFTPP been analyzed for each 12 hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRF minimum requirements met?	X		
Are there any transcription/calculation error in reporting the RRF or RSD?		X	

	YES	NO	NA
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?	X		

MISCELLANEOUS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8015 as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994.

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 National Functional Guidelines:

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

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

B The reported value was obtained from a reading less than the RL but greater than or equal to the IDL.

M Duplicate injection precision not met.

N Spiked sample recovery not within control limits.

* Duplicate analysis not within control limits.

E The reported value is estimated due to the presence of interference.

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.

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.

Data Assessment

1. Holding Times

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

Method	Matrix	Holding Time
Methanol by SW846 8015	Water	7 days from collection to extraction, 40 days from extraction to analysis
	Soil	14 days from collection to extraction, 40 days from extraction to analysis

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.

No analytes were detected above the reporting limit in the associated blanks.

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. 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.

5. 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 LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The laboratory control sample exhibited results within the control limit.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/DUP-2	Methanol	ND	ND	AC

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one 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.

7. 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

Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Was one or more surrogate recovery outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a MS recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 2			
How many RPDs for MS/MSD were outside of QC limits?			
0 out of 1			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each day or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every 12 hours for each system used?	X		
Do any method/instrument blanks have positive results?		X	
Are trip/field/rinse blanks associated with every sample?		X	
Do any trip/field/rinse blanks have positive results?			X

	YES	NO	NA
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?			X
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?			X
Do the samples and standard relative ion intensities agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRFs minimum requirements met?	X		
Are there any transcription/calculation errors in reporting the RRFs or RSDs?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each 12 hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF minimum requirements met?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Corrected Sample Analysis Data Sheets

Client ID: **MW-27**
Site: Bear Street

Lab Sample No: **908888**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17240.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	6.0
Acetone	21	10
Trichloroethene	ND	2.0
Benzene	9.4	2.0
Toluene	23	10
Ethylbenzene	43	8.0
Xylene (Total)	68	10

MW-85R

Client ID: ~~MW-85R~~
Site: Bear Street

Lab Sample No: 908889
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17254.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	6.0
Acetone	ND	10
Trichloroethene	ND	2.0
Benzene	5.5	2.0
Toluene	22	10
Ethylbenzene	70	8.0
Xylene (Total)	160	10

Client ID: **DUP-2**
Site: Bear Street

Lab Sample No: **908890**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17244.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 2.0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methylene Chloride	ND	6.0
Acetone	9.6J	10
Trichloroethene	ND	2.0
Benzene	5.7	2.0
Toluene	22	10
Ethylbenzene	68	8.0
Xylene (Total)	160	10

Client ID: **MW-18**
Site: Bear Street

Lab Sample No: **908891**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17253.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-19**
Site: Bear Street

Lab Sample No: **908892**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17255.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-23I**
Site: Bear Street

Lab Sample No: **908893**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17256.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-25D**
Site: Bear Street

Lab Sample No: **908894**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17257.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-25S**
Site: Bear Street

Lab Sample No: **908895**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17258.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-23S**
Site: Bear Street

Lab Sample No: **908896**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17259.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **PZ-4D**
Site: Bear Street

Lab Sample No: **908897**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17260.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **PZ-4S**
Site: Bear Street

Lab Sample No: **908898**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/02/08
GC Column: Rtx-VMS
Instrument ID: VOAMS13.i
Lab File ID: p17261.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	3.0
Acetone	ND	5.0
Trichloroethene	ND	1.0
Benzene	ND	1.0
Toluene	ND	5.0
Ethylbenzene	ND	4.0
Xylene (Total)	ND	5.0

Client ID: **MW-27**
Site: Bear Street

Lab Sample No: **908888**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/02/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3080.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 200.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	13000 B	1000
N,N-Dimethylaniline	ND	100

MW-8SR

Client ID: ~~MW-8SR~~
Site: Bear Street

Lab Sample No: 908889
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/04/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3123.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 1.0 ml
Dilution Factor: 50.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Aniline	5800 B	250
N,N-Dimethylaniline	ND	25

Client ID: **DUP-2**
Site: Bear Street

Lab Sample No: **908890**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/03/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3083.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	5200 B	500
N,N-Dimethylaniline	ND	50

Client ID: **MW-18**
Site: Bear Street

Lab Sample No: **908891**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3042.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-19**
Site: Bear Street

Lab Sample No: **908892**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3049.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: Bear Street

Lab Sample No: **908893**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3043.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: Bear Street

Lab Sample No: **908894**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3044.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-25S**
Site: Bear Street

Lab Sample No: **908895**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3045.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: Bear Street

Lab Sample No: **908896**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3046.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	~~0.4JB~~ ND	5.0
N,N-Dimethylaniline	ND	0.5

Client ID: **PZ-4D**
Site: Bear Street

Lab Sample No: **908897**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3047.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: Bear Street

Lab Sample No: **908898**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Extracted: 03/31/08
Date Analyzed: 04/01/08
GC Column: DB-5
Instrument ID: BNAMS8.i
Lab File ID: aa3048.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-27**
Site: Bear Street

Lab Sample No: **908888**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2708.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-85R~~ MW-85R
Site: Bear Street

Lab Sample No: **908889**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2709.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-2**
Site: Bear Street

Lab Sample No: **908890**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2712.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: Bear Street

Lab Sample No: **908891**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2713.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: Bear Street

Lab Sample No: **908892**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2714.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: Bear Street

Lab Sample No: **908893**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2715.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: Bear Street

Lab Sample No: **908894**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2717.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: Bear Street

Lab Sample No: **908895**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2718.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: Bear Street

Lab Sample No: **908896**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2719.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: Bear Street

Lab Sample No: **908897**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2720.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: Bear Street

Lab Sample No: **908898**
Lab Job No: S510

Date Sampled: 03/27/08
Date Received: 03/28/08
Date Analyzed: 04/01/08
GC Column: DB624
Instrument ID: BNAGC5.i
Lab File ID: gc5f2721.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

Laboratory Narrative

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Rd
Edison, NJ 08817
Ph. 732 549-3900 * *Fax* 732 549-3679

SDG NARRATIVE

TestAmerica

SDG No. S510

TA Edison Sample	Client ID
908888	MW-27
908889	MW-85R
908890	DUP-2
908891	MW-18
908892	MW-19
908893	MW-23I
908894	MW-25D
908895	MW-25S
908896	MW-23S
908897	PZ-4D
908898	PZ-4S

Sample Receipt:

Sample delivery conforms to requirements.

Volatile Organic Analysis (GC/MS):

QA batch 8975:MS/MSD %recovery of Chlorobenzene is outside of Q.C.limits (sample amount is too high for spike level).Blank Spike within QC limits.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Rd
Edison, NJ 08817
Ph. 732 549-3900 * *Fax* 732 549-3679

Base/Neutral and/or Acid Extractable Organics (GC/MS):

QA Batch #6019:the extraction blank WB091contains 0.51 ppb of Aniline.Sample results flagged with a B qualifier.
QA batch #6019 :MS %recovery of 2,4,6-Trichlorophenol is biased low.
QA batch #6019 :MS/MSD %recovery of Pentachlorophenol is biased low.
Sample#908888,and 890:surrogate recovery diluted out.

Nonhalogenated Organic Analysis (GC/FID):

DAI sample#908889MSD:surrogate standard recovery is outside of Q.C.limits.

I certify that this data package is in compliance with the terms of the contract NY ASP B both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the laboratory manager or his designee.

Janae McCloud
Project Manager

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
908888	WATER	3/27/08	3/28/08		4/1/08
908889	WATER	3/27/08	3/28/08		4/2/08
908889MS	WATER	3/27/08	3/28/08		4/1/08
908889SD	WATER	3/27/08	3/28/08		4/1/08
908890	WATER	3/27/08	3/28/08		4/1/08
908891	WATER	3/27/08	3/28/08		4/2/08
908892	WATER	3/27/08	3/28/08		4/2/08
908893	WATER	3/27/08	3/28/08		4/2/08
908894	WATER	3/27/08	3/28/08		4/2/08
908895	WATER	3/27/08	3/28/08		4/2/08
908896	WATER	3/27/08	3/28/08		4/2/08
908897	WATER	3/27/08	3/28/08		4/2/08
908898	WATER	3/27/08	3/28/08		4/2/08

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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
908888	WATER	3/27/08	3/28/08		4/1/08
908889	WATER	3/27/08	3/28/08		4/2/08
908889MS	WATER	3/27/08	3/28/08		4/1/08
908889SD	WATER	3/27/08	3/28/08		4/1/08
908890	WATER	3/27/08	3/28/08		4/1/08
908891	WATER	3/27/08	3/28/08		4/2/08
908892	WATER	3/27/08	3/28/08		4/2/08
908893	WATER	3/27/08	3/28/08		4/2/08
908894	WATER	3/27/08	3/28/08		4/2/08
908895	WATER	3/27/08	3/28/08		4/2/08
908896	WATER	3/27/08	3/28/08		4/2/08
908897	WATER	3/27/08	3/28/08		4/2/08
908898	WATER	3/27/08	3/28/08		4/2/08

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
908888	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908888	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		200.00
908889	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		50.00
908889	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908889MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		50.00
908889MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908889SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		50.00
908889SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908890	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908890	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
908891	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908891	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908892	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908892	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908893	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908893	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908894	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908894	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908895	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908895	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908896	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908896	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908897	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908897	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908898	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908898	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00

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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
908888	WATER	3/27/08	3/28/08		4/1/08
908889	WATER	3/27/08	3/28/08		4/2/08
908889MS	WATER	3/27/08	3/28/08		4/1/08
908889SD	WATER	3/27/08	3/28/08		4/1/08
908890	WATER	3/27/08	3/28/08		4/1/08
908891	WATER	3/27/08	3/28/08		4/2/08
908892	WATER	3/27/08	3/28/08		4/2/08
908893	WATER	3/27/08	3/28/08		4/2/08
908894	WATER	3/27/08	3/28/08		4/2/08
908895	WATER	3/27/08	3/28/08		4/2/08
908896	WATER	3/27/08	3/28/08		4/2/08
908897	WATER	3/27/08	3/28/08		4/2/08
908898	WATER	3/27/08	3/28/08		4/2/08

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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
908888	WATER	3/27/08	3/28/08		4/1/08
908889	WATER	3/27/08	3/28/08		4/2/08
908889MS	WATER	3/27/08	3/28/08		4/1/08
908889SD	WATER	3/27/08	3/28/08		4/1/08
908890	WATER	3/27/08	3/28/08		4/1/08
908891	WATER	3/27/08	3/28/08		4/2/08
908892	WATER	3/27/08	3/28/08		4/2/08
908893	WATER	3/27/08	3/28/08		4/2/08
908894	WATER	3/27/08	3/28/08		4/2/08
908895	WATER	3/27/08	3/28/08		4/2/08
908896	WATER	3/27/08	3/28/08		4/2/08
908897	WATER	3/27/08	3/28/08		4/2/08
908898	WATER	3/27/08	3/28/08		4/2/08

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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
908888	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908888	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		200.00
908889	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		50.00
908889	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908889MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		50.00
908889MS	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908889SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		50.00
908889SD	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908890	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908890	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		100.00
908891	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908891	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908892	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908892	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908893	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908893	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908894	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908894	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908895	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908895	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908896	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908896	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908897	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908897	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00
908898	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		
908898	WATER	1989 NYSDEC ASP - Revision 10/95	Liquid-Liquid		1.00

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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	
S510	3/27/2008	1989	MW-27	Water	Yes	No	--	--	Yes	SVOC – surrogate[2]
S510	3/27/2008	1989	MW-85R	Water	Yes	Yes	--	--	Yes	
S510	3/27/2008	1989	DUP-2	Water	Yes	No	--	--	Yes	SVOC – surrogate[2]
S510	3/27/2008	1989	MW-18	Water	Yes	No	--	--	Yes	SVOC – surrogate[2]
S510	3/27/2008	1989	MW-19	Water	Yes	No	--	--	Yes	SVOC – surrogate[2]
S510	3/27/2008	1989	MW-23I	Water	Yes	Yes	--	--	Yes	
S510	3/27/2008	1989	MW-25D	Water	Yes	Yes	--	--	Yes	
S510	3/27/2008	1989	MW-25S	Water	Yes	Yes	--	--	Yes	
S510	3/27/2008	1989	MW-23S	Water	Yes	No	--	--	Yes	SVOC - blank
S510	3/27/2008	1989	PZ-4D	Water	Yes	Yes	--	--	Yes	
S510	3/27/2008	1989	PZ-4S	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.
2 The deviation did not result in any qualification of the data.