ARCADIS Design & Consultancy for natural and built assets

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ENVIRONMENT

Subject:
Groundwater Monitoring Memorandum
McKesson Envirosystems Site
800/801 Van Rensselaer Street[1]
Syracuse, New York
Site No. 7-34-020

Date:
September 26, 2016

Contact:
Dawn E. Penniman

Phone:
315.671.9229

Email:
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Our ref:
B0026003.FY17.00190

Dear Mr. Long:

Arcadis of New York, Inc. (Arcadis) has prepared this groundwater monitoring memorandum for the McKesson Envirosystems Site located at 800/801 Van Rensselaer Street in Syracuse, New York (Site). Arcadis prepared this memorandum on behalf of McKesson Corporation (McKesson) to describe groundwater monitoring activities and present the results of the July 2016 monitoring event conducted at the Site in and around Areas 1, 2, and 3 (Figure 1). This monitoring event was conducted using the protocols provided under the post-shutdown process control monitoring program outlined in the Site Management Plan (SMP; Arcadis 2014c). This SMP was approved by the New York State Department of Environmental Conservation (NYSDEC) as amended by the revisions stated in its letter dated July 20, 2015 and conditioned upon its letter being appended to all copies of the SMP (NYSDEC 2015b).

BACKGROUND

The NYSDEC approved shutdown of the Operable Unit No. 2 (OU2) remedial system in a letter dated April 11, 2013 (NYSDEC 2013). The letter required that a

[1] Note that the address of the site in the NYSDEC's Environmental Site Remediation Database is 400 Bear Street West. The legal addresses for the two parcels that make up the site are 800 and 801 Van Rensselear Street.

post-shutdown process control monitoring program be implemented to determine the continued effectiveness of the OU2 remedial action on the remaining contamination and to evaluate the need to restart the remedial processes (NYSDEC 2013). The post-shutdown monitoring program was a continuation of the constituent of concern (COC) and hydraulic process control monitoring program that has been conducted at the Site since OU2 treatment activities commenced in 1998.

As identified in the SMP, the post-shutdown process control monitoring program was conducted for 2 years (2013 to 2015) and the results of the last monitoring event in April 2015 were reported in the Monitoring Memorandum dated June 11, 2015 (Arcadis 2015b). In this Memorandum, Arcadis stated that the conclusions from a review of the results of the monitoring program

> . . . confirm that groundwater quality conditions have not substantially changed since the shutdown of the in-situ bioremediation treatment and closed loop hydraulic systems and fully demonstrate the continued effectiveness of the OU2 remedial action. Accordingly, there is no need to restart the remedial processes. As the groundwater monitoring identified in the SMP has been completed and the goals of the post-shutdown process control monitoring program have been met, no further groundwater monitoring is needed and the OU2 remedial activities for Areas 1, 2, and 3 are considered complete.

In its September 16, 2015 letter (NYSDEC 2015c), the NYSDEC commented on its review of the Arcadis June 11, 2015 Monitoring Memorandum and concluded:

> The Department agrees that, based upon the results of the required two (2) years of groundwater data that was obtained for the purpose of documenting that the site has met the remedial system shutdown requirements, the in-situ bioremediation treatment and closed loop hydraulic systems may remain shut down and be decommissioned.

However, NYSDEC also stated in its September 16, 2015 letter:

> Groundwater monitoring must continue until such time as a discontinuation of the groundwater long-term monitoring program is granted by DEC, or the site is delisted. Absent a proposed alternate sampling schedule from McKesson, the Department expects that the next sampling event will occur in July 2016.

In view of the foregoing, the objective of this monitoring memorandum is to provide an update of groundwater conditions at the Site. This monitoring memorandum provides information about the following:

- July 2016 monitoring activities,
- July 2016 monitoring results,
- Conclusions, and
- Next steps.

JULY 2016 MONITORING ACTIVITIES

The monitoring event consisted of conducting COC monitoring from July 5 through 7, 2016 and hydraulic monitoring on July 8, 2016. Table 1 identifies each of the hydraulic and COC monitoring locations, which are shown on Figure 1. In addition, the presence or absence of non-aqueous phase liquid (NAPL) was

assessed in the monitoring wells and piezometers included in the monitoring program. During this monitoring event, NAPL was not observed in the monitoring wells, piezometers, or collection sump.

Hydraulic Monitoring

During hydraulic monitoring, groundwater level measurements were obtained at monitoring wells and piezometers that are screened entirely within the sand layer of the shallow hydrogeologic unit and located in and around Areas 1, 2, and 3. Additionally, the Barge Canal surface-water elevation was obtained from measurements taken from a reference point on the Bear Street Bridge, which passes over the canal.

Constituent of Concern Monitoring

The groundwater COCs for the Site are acetone, benzene, toluene, ethylbenzene, xylenes (total), methanol, trichloroethene, aniline, N,N-dimethylaniline, and methylene chloride. TestAmerica Laboratories, Inc. (TestAmerica) in Edison, New Jersey, analyzed the groundwater samples for COCs using United States Environmental Protection Agency (USEPA) Methods 8260C (volatile organic compounds) and 8270D (semivolatile organic compounds), and TestAmerica in Amherst, New York, analyzed the groundwater samples for COCs via USEPA Method 8015D (methanol). TestAmerica is accredited pursuant to the New York State Department of Health Environmental Laboratory Accreditation Program for these analyses. Arcadis validated laboratory analytical results using the Tier III full validation process. Attachment A presents copies of the validated analytical laboratory reports associated with the July 2016 monitoring event.

JULY 2016 MONITORING RESULTS

Hydraulic Monitoring Results

Table 2 presents groundwater level measurements obtained during the July 8, 2016 hydraulic monitoring event, as well as historical measurements obtained since October 2006. Figure 2 depicts a potentiometric surface of the Site's shallow hydrogeologic unit sand layer using the July 8, 2016 dataset. A comparison of the potentiometric surface maps generated during the six post-shutdown process control monitoring events demonstrates that hydraulic conditions have remained consistent following the April 2013 shutdown of the closed loop hydraulic system in Area 3.

When comparing the recent potentiometric surface map (Figure 2) to maps generated (and presented in previous periodic review reports and monitoring memoranda) using groundwater elevation data obtained prior to system shutdown, the following conclusions, as presented in the first monitoring memorandum, dated October 18, 2013 (Arcadis 2013c), remain true:

- The closed depression around the groundwater withdrawal trench is not present.
- The potentiometric surface of the shallow hydrogeologic unit sand layer following the April 2013 system shutdown is generally consistent with the potentiometric surface prior to the 1998 implementation of the closed loop hydraulic system in Area 3.

Constituent of Concern Monitoring Results

Table 3 summarizes COC groundwater analytical results (April 2011 through July 2016), which are also shown on Figures 3 (Areas 1 and 2) and 4 (Area 3).[2] COC groundwater analytical results are compared to the NYSDEC Groundwater Quality Standards presented in the Technical and Operational Guidance Series 1.1.1 (NYSDEC 1998). The July 2016 COC results are consistent with those obtained following the April 2013 shutdown of the in situ bioremediation treatment system, and those obtained prior to shutdown. Concentrations for most of the COCs either were not detected or were below their respective NYSDEC Class GA Groundwater Quality Standards in each area.

Analytical results for the July 2016 COC groundwater monitoring event are summarized below for each area (Areas 1, 2, and 3), as well as for sentinel and downgradient perimeter monitoring locations.

Area 1

At three of the five monitoring locations in Area 1 (MW-9S, MW-31, and MW-33), four COCs were detected at concentrations 10 times or less above their respective standards (most were less than 3 times a standard).

- Benzene was detected in MW-9S and MW-31 at concentrations of 1.3 parts per billion (ppb) and 9.6 ppb, respectively. The standard for benzene is 1 ppb.
- Ethylbenzene was detected in MW-9S at a concentration of 13 ppb. The standard for ethylbenzene is 5 ppb.
- Xylenes were detected in MW-9S at a concentration of 50 ppb. The standard for xylenes is 5 ppb.
- N,N-dimethylaniline was detected in MW-9S, MW-31, and MW-33 at concentrations of 2.7, 1.3, and 1.1 ppb, respectively. The standard for N,N-dimethylaniline is 1 ppb.

The remaining COCs (acetone, methylene chloride, toluene, TCE, aniline, and methanol) in MW-9S, MW-31, and MW-33 were non-detect or present at a concentration below the respective standard.

At monitoring locations MW-32 and TW-01, all COCs were non-detect (Table 3 and Figure 3).

Area 2

At three of the four monitoring locations in Area 2 (MW-34, TW-02RRR, and MW-36R), three COCs were detected at concentrations 4 times or less above their respective standards.

- Benzene was detected in MW-34 at a concentration of 1.6 ppb. The standard for benzene is 1 ppb.
- Aniline was detected in MW-36R at an estimated concentration of 7.9 ppb. The standard for aniline is 5 ppb.
- N,N-dimethylaniline was detected in MW-34, TW-02RRR, and MW-36R at concentrations of 2.0, 1.4, and 3.4 ppb, respectively. The standard for N,N-dimethylaniline is 1 ppb.

The remaining COCs (acetone, ethylbenzene, methylene chloride, toluene, TCE, xylenes, and methanol) in MW-34, TW-02RRR, and MW-36R were non-detect or present at a concentration below the respective standard.

[2] Attachment B provides a summary of historical groundwater monitoring data from March 1988 through October 2010.

At monitoring location MW-35, all COCs were non-detect (Table 3 and Figure 3).

Area 3

At three of the five monitoring locations in Area 3 (MW-8SR, MW-27, and MW-28), a maximum of two COCs were detected at concentrations less than 2 times above their respective standards (Table 3 and Figure 4).

- Benzene was detected in MW-8SR, MW-27, and MW-28 at concentrations of 1.7, 1.2, and 1.1 ppb, respectively. The standard for benzene is 1 ppb.
- N,N-dimethylaniline was detected in MW-8SR and MW-27 at concentrations of 1.1 and 1.2 ppb, respectively. The standard for N,N-dimethylaniline is 1 ppb.

The remaining COCs (acetone, ethylbenzene, methylene chloride, toluene, TCE, xylenes, aniline, and methanol) in MW-8SR, MW-27, and MW-28 were non-detect or present at a concentration below the respective standard.

At monitoring locations MW-29 and MW-30, all COCs were non-detect or below the NYSDEC groundwater quality standards (Table 3 and Figure 4).

Sentinel Wells

COCs were not detected at sentinel wells MW-3S or MW-4S, located downgradient from Area 1 (Table 3 and Figure 3).

Downgradient Perimeter Wells/Piezometers

COCs were not detected in the downgradient perimeter/monitoring locations (MW-17R, MW-18, MW-23I, MW-23S, PZ-4S, and PZ-4D; Table 3 and Figure 4).

Conclusions

The conclusions developed based on review of the July 2016 groundwater data are summarized below:

- COC concentrations detected in July 2016 did not rebound above pre-shutdown COC concentrations.
- COC concentrations were mostly not detected or were below their respective NYSDEC Class GA Groundwater Quality Standard in each area during the July 2016 monitoring event.
- COC concentrations have not migrated beyond the site boundary above NYSDEC Groundwater Quality Standards.

As stated in Section 6.4 (a) of Division of Environmental Remediation-10: Technical Guidance for Site Investigation and Remediation (DER-10) (NYSDEC 2010), “[a] remedial process is considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document.” The data from the July 2016 groundwater monitoring event underscore that the OU2 remedial action is complete.

NEXT STEPS

As the OU2 remedial activities are complete, McKesson wishes to proceed with site closeout and delisting of the Site from the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites in accordance with DER-10 Section 6.4(a) (NYSDEC 2010) and 6 New York Codes, Rules, and Regulations (NYCRR) Section

375-2.7(e). The NYSDEC Record of Decision for OU2 stated that the Site will be considered for delisting from the Registry upon completion of the remediation, as demonstrated by the monitoring programs (NYSDEC 1997). Consequently, McKesson will be submitting a Petition to NYSDEC under 6 NYCRR Section 375-2.7(e) to delist the Site. Prior to submission of a Petition, we believe that it will be helpful to meet with you and other involved NYSDEC representatives to review the issues to be addressed in the Petition before McKesson goes forward.

I will call you in the next few weeks to follow up. As always, if you have any questions or require additional information, please do not hesitate to contact me at 315.671.9229.

Sincerely,

Arcadis of New York, Inc.

Dawn E. Penniman, P.E.
Certified Project Manager I

Copies:
Ms. Susan Edwards, NYSDEC (w/out Attachment A)
Mr. Harry Warner, NYSDEC (w/out Attachment A)
Mr. Richard Jones, NYSDOH (w/out Attachment A)
Ms. Charlotte Bethoney, NYSDOH (w/out Attachment A)
Margaret A. Sheen, Esq., NYSDEC (w/out Attachment A)
Mr. James Fleer, McKesson Corporation (w/out Attachment A)
Mr. Douglas Morrison, Bristol-Myers Squibb Company (w/out Attachment A)
Glen Stuart, Esq., Morgan, Lewis & Bockius LLP (w/out Attachment A)
Christopher Young, P.G., de maximis, inc. (w/out Attachment A)
Barry Kogut, Esq., Bond Schoeneck & King PLLC (w/out Attachment A)

Enclosures:

Tables

Table 1	Post-Shutdown Process Control Monitoring Wells and Piezometers
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Table 3	Summary of Groundwater Monitoring Data, April 2011 through July 2016

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Figure 1	Site Plan
Figure 2	Potentiometric Surface of the Shallow Hydrogeologic Unit Sand Layer – July 8, 2016
Figure 3	Groundwater Monitoring Data Summary for April 2011 – July 2016 Areas 1 & 2

Figure 4 Groundwater Monitoring Data Summary for April 2011 – July 2016 Area 3

Attachments

Attachment A	Validated Analytical Laboratory Reports
Attachment B	Summary of Historical Groundwater Monitoring Data – March 1988 through October 2010

References

Arcadis. 2013a. January 2013 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility. January 15.

Arcadis. 2013b. October 2013 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility. October 1.

Arcadis. 2013c. Monitoring Memorandum – July 2013 Monitoring Event, McKesson Envirosystems, Former Bear Street Facility. October 18.

Arcadis. 2014a. Monitoring Memorandum – October 2013 Monitoring Event, McKesson Envirosystems, Former Bear Street Facility. January 3.

Arcadis. 2014b. Monitoring Memorandum – January 2014 Monitoring Event, McKesson Envirosystems Site. April 11.

Arcadis. 2014c. Site Management Plan, NYSDEC Site Number: 7-34-020, McKesson Envirosystems Site. July 31.

Arcadis. 2014d. Monitoring Memorandum – April 2014 Monitoring Event, McKesson Envirosystems Site. September 11.

Arcadis. 2015a. Monitoring Memorandum – October 2014 Monitoring Event, McKesson Envirosystems Site. March 2.

Arcadis. 2015b. Monitoring Memorandum – April 2015 Monitoring Event, McKesson Envirosystems Site. June 11.

NYSDEC. 1997. Record of Decision for McKesson Envirosystems Inactive Hazardous Waste Disposal Site, OU2. March 19.

NYSDEC. 1998. Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June. Available online at: http://www.dec.ny.gov/docs/water_pdf/togs111.pdf.

NYSDEC. 2006. 6 NYCRR Part 375: Environmental Remediation Programs, Subparts 375-1 to 375-4 & 375-6. December 14. Available online at: http://www.dec.ny.gov/docs/remediation_hudson_pdf/part375.pdf.

NYSDEC. 2010. Division of Environmental Remediation-10: Technical Guidance for Site Investigation and Remediation (DER-10). May 3. Available online at: http://www.dec.ny.gov/docs/remediation_hudson_pdf/der10.pdf.

NYSDEC. 2013. Letter from Payson Long, NYSDEC, to Jean Mescher, McKesson Corporation. RE: Discontinuation of Remedial Processes. April 11.

NYSDEC. 2015a. Letter from Payson Long, NYSDEC, to James Fleer, McKesson. RE: reclassification of the Site. June 12.

NYSDEC. 2015b. Letter from Payson Long, NYSDEC, to James Fleer, McKesson. RE: Conditional approval of SMP. July 20.

NYSDEC. 2015c. Letter from Payson Long, NYSDEC, to James Fleer, McKesson. RE: comments on April 2015 groundwater monitoring event summary. September 16.

TABLES

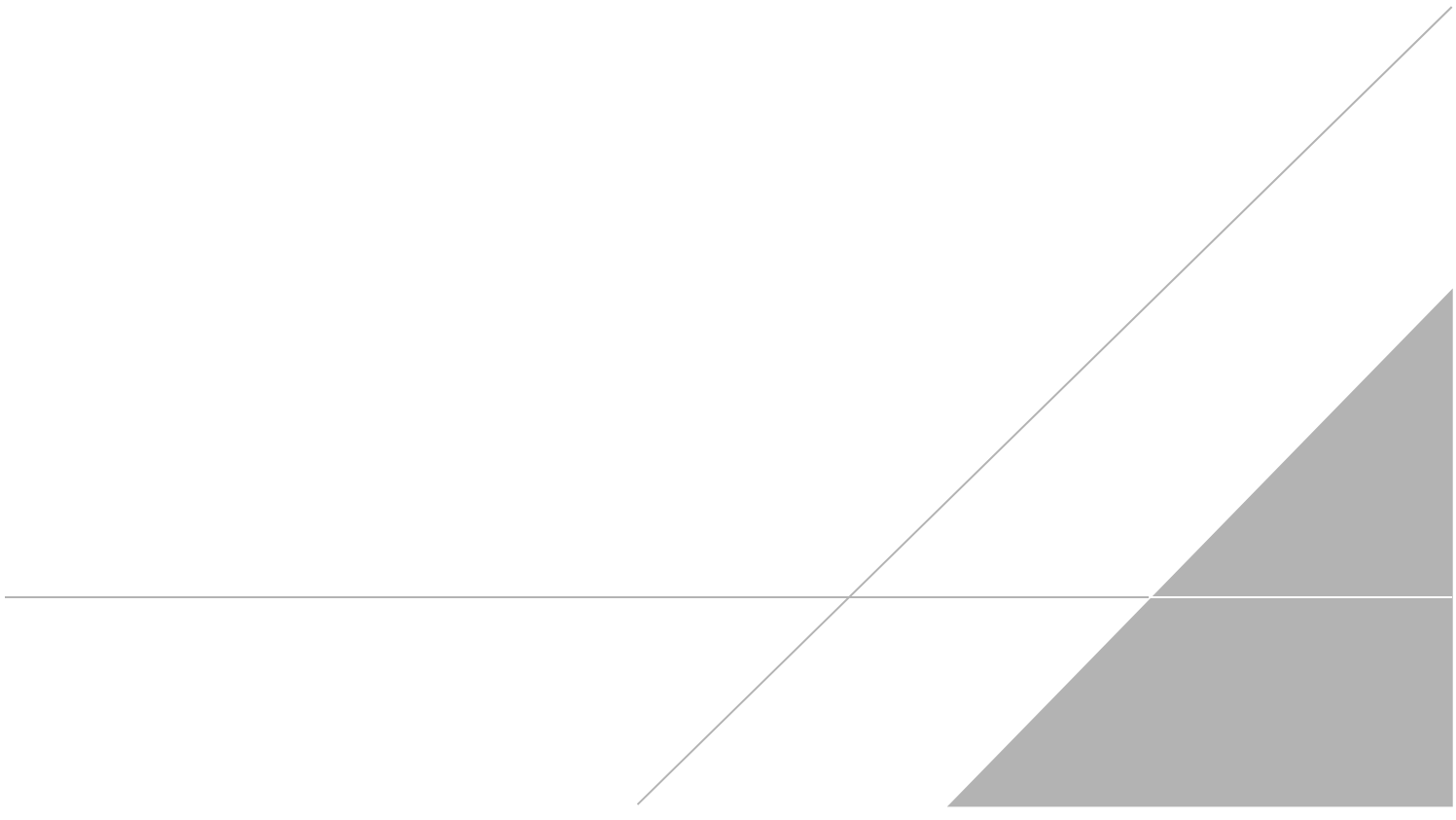

Table 1
Post-Shutdown Process Control Monitoring Wells and Piezometers
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

Monitoring Location	Purpose of Monitoring
Sentinel	
MW-3S*	C
MW-4S*	C
Area 1	
TW-01	C
MW-9S	C
MW-31	C
MW-32	C
MW-33*	C
PZ-F	H
PZ-G	H
PZ-HR	H
PZ-P	H
PZ-Q	H
PZ-R	H
PZ-S	H
Area 2	
TW-02RRR	C
MW-34	C
MW-35	C
MW-36R*	C
PZ-I	H
PZ-J	H
PZ-T	H
PZ-U	H
PZ-V	H
Area 3	
MW-8SR*	C
MW-11S	H
MW-27*	C
MW-28	C
MW-29*	C
MW-30*	C
PZ-A	H
PZ-B	H
PZ-C	H
PZ-D	H
PZ-E	H
PZ-K	H

See notes on page 2.

Table 1
Post-Shutdown Process Control Monitoring Wells and Piezometers
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

Monitoring Location	Purpose of Monitoring
Area 3 (cont'd)	
PZ-L	H
PZ-M	H
PZ-N	H
PZ-O	H
Downgradient Perimeter	
MW-17R	C
MW-18	C
MW-23I	C
MW-23S	C, H
MW-24SR	H
MW-25S	H
PZ-4S*	C
PZ-4D*	C, H
PZ-5D	H
Barge Canal	H

Notes:

1. The table lists monitoring wells and piezometers that are part of the constituent of concern (COC) and/or hydraulic post-shutdown process control monitoring program.
2. Hydraulic monitoring involves obtaining groundwater level measurements from monitoring wells/piezometers identified in the table and surface-water level measurements from the Barge Canal. The surface-water level of the Barge Canal is measured from a demarcated reference point on the Bear Street Bridge, which crosses over the canal. Groundwater elevation data are used to map potentiometric surface of the shallow hydrogeologic unit sand layer.
3. The COCs are acetone, benzene, toluene, ethylbenzene, xylenes (total), methanol, trichloroethene, aniline, N,N-dimethylaniline, and methylene chloride.
4. Monitoring well MW-4S and piezometer PZ-4S have been included in the COC monitoring program every third and second monitoring event, respectively; however, both were included in the April 2015 COC monitoring program (the last groundwater monitoring event identified in the July 31, 2014 Site Management Plan prepared by ARCADIS).

C = COC monitoring.
H = hydraulic monitoring.
* = New York State Department of Environmental Conservation-approved the elimination of methanol analysis from the COC groundwater monitoring program (NYSDEC. 2010. Letter from Payson Long, NYSDEC, to David Ulm, ARCADIS. RE: Requested Changes in Remedial Monitoring Program. September 23.).

Table 2
Summary of Groundwater Level Measurements, October 2006 through July 2016
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

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

See notes on page 3.

Table 2
Summary of Groundwater Level Measurements, October 2006 through July 2016
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

ARCADIS Design & Consultancy for natural and built assets

Location	Reference Elevation (feet amsl)	4/9/2012	10/1/2012	4/1/2013	7/18/2013[D]	10/17/2013[D]	1/17/2014[D]	4/14/2014[D]	10/20/2014[D]	3/30/2015[D]	5/14/2015[D,F]	7/8/2016[D]
Barge Canal[A]	393.39	358.39	360.59	360.74	360.69	360.69	361.38	362.29	360.87	361.21	361.27	360.84
Collection Sump[B]	372.81	360.95	361.70	361.24	364.71	364.84	366.14	366.92	364.73	368.31[B]	--	364.29
MW-3S[B]	376.54	366.44	365.15	367.55	366.11	366.62	367.83	368.66	366.70	368.67	--	365.52
MW-11S	373.50	363.92	363.62	364.42	364.95	365.08	366.08	366.94	365.00	366.95	365.64	364.70
MW-18[B]	372.57	362.57	362.32	362.85	362.74	363.54	363.57	364.50	365.00	363.84	--	362.89
MW-23I[B]	372.77	364.99	364.73	365.29	365.23	365.33	366.02	366.86	365.32	359.26	--	365.08
MW-23S	372.61	362.23	362.29	362.88	364.20	364.37	365.30	366.06	364.14	366.95	364.91	363.95
MW-24SR	375.55	365.09	364.84	365.48	365.39	365.46	366.25	367.09	365.40[E]	366.48	366.07	365.29
MW-25S	373.39	362.81	362.61	363.48	364.08	364.23	365.14	365.89	364.22	366.09	364.42	363.78
PZ-4D	376.11	365.24	364.94	365.59	365.47	365.59	366.34	367.06	365.60	366.51	366.13	365.35
PZ-5D	375.58	365.48	365.16	365.84	365.67	365.81	366.57	367.42	365.78	366.78	366.33	365.56
PZ-A	373.94	363.24	362.54	362.68	364.78	364.92	366.08	366.87	364.84	367.79	365.39	364.45
PZ-B	373.92	362.14	362.35	362.64	364.77	364.88	366.08	366.86	364.79	368.01	365.32	364.35
PZ-C	374.85	366.10	365.41	366.76	365.75	365.84	366.65	367.50	365.78	367.16	366.26	365.44
PZ-D	375.12	366.39	365.65	367.07	365.87	365.97	366.82	367.66	365.90	367.31	366.39	365.58
PZ-E	374.12	363.67	363.35	364.38	365.12	365.22	366.44	367.22	365.21	368.66	365.64	364.70
PZ-F	377.06	366.46	365.44	366.91	366.52	366.57	367.61	368.66	366.51	368.33	366.96	365.96
PZ-G	377.16	366.53	365.48	367.04	366.67	366.70	367.74	368.74	366.54	368.39	366.99	365.99
PZ-HR	376.99	366.40	365.38	366.90	366.46	366.50	367.61	368.60	366.47	368.32	366.95	365.89
PZ-I	375.15	366.77	365.36	367.52	366.60	366.70	368.20	369.15	366.80	368.94	367.29	365.92
PZ-J	374.89	366.30	365.55	366.74	366.39	366.48	367.50	368.37	366.48	368.06	366.98	365.99
PZ-K	373.19	362.65	362.75	363.03	364.79	364.96	365.97	366.77	364.86	367.18	365.43	364.38
PZ-L	374.62	362.16	362.42	362.60	364.61	364.77	365.90	366.71	364.69	367.51	365.24	364.29
PZ-M	374.35	362.86	362.87	363.28	364.93	364.96	366.18	366.98	364.98	367.54	365.56	364.62
PZ-N	376.94[C]	366.06	365.33	366.72	365.67	365.81	366.57	367.46	365.73	367.14	366.20	365.39
PZ-O	375.36	362.61	362.52	363.14	364.50	364.64	365.72	366.48	364.56	366.56	365.16	364.10
PZ-P	376.89	366.49	365.45	366.93[B]	366.57	366.63	367.69	368.69	366.58	368.34	367.04	366.03
PZ-Q	377.61	366.52	365.44	367.04	366.59	366.65	367.76	368.80	366.56	368.46	367.04	366.03
PZ-R	377.05	366.48	365.45	367.03	366.54	366.59	367.74	368.75	366.55	368.43	367.02	365.98
PZ-S	378.13	366.51	365.45	367.34[B]	366.58	366.61	368.27	369.73	366.76	369.01	367.14	366.03
PZ-T	376.25	366.32	365.41	366.86	366.42	366.49	367.64	368.55	366.50	368.20	366.97	365.94
PZ-U	375.35	366.29	365.44	366.77	366.38	366.47	367.55	368.42	366.45	368.13	366.96	365.95
PZ-V	375.78	366.28	365.40	366.77	366.37	366.46	367.53	368.44	366.43	368.18	366.93	365.92

See notes on page 3.

Superscript Notes:

[A] = Surface-water level measurements are obtained from the Barge Canal. The surface-water level is measured from a demarcated reference point on the Bear Street Bridge, which crosses over the canal.

[B] = Data not used in potentiometric surface mapping of the shallow hydrogeologic unit sand layer.

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

[D] = Groundwater elevations reflect hydrogeologic conditions after the April 2013 shutdown of the in-situ bioremediation treatment and closed loop hydraulic systems.

[E] = Monitoring well MW-24SR was not accessible on October 20, 2014 and was monitored on October 21, 2014.

[F] = A second round of hydraulic gauging was performed on May 14, 2015 due to groundwater mounding observed in Area 3 during the March 30, 2015 gauging event. The groundwater mounding was caused by saturated conditions at the Site from recent snow melt.

Abbreviations:

-- = not measured
amsl = above mean sea level (National Geodetic Vertical Datum of 1929)

Table 3
Summary of Groundwater Monitoring Data, April 2011 through July 2016
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McKesson Envirosystems Site
Syracuse, New York

ARCADIS Design & Consultancy for natural and built assets

Monitoring Well	Sampling Date	Screen Elevation (feet amsl) Top	Bottom	Acetone	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				**50**	**1**	**5**	**5**	**5**	**5**	**5**	**5**	**1**	**50[G]**
MW-3S	4/11	365.1	350.1	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	**0.35 J**	<1.0	<3.0	<5.0	<1.0	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	10/12			<10	**0.27 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.61 J	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	NA
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	NA
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	10/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	NA
MW-4S	4/12	365.5	350.5	<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	NA
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	NA
MW-8SR[B]	4/11	362.7	352.7	**5.9 J [4.3 J]**	**3.2 [3.2]**	**10 [8.8]**	<1.0 [<1.0]	**2.8 [2.6]**	<1.0 [<1.0]	**32 [31]**	**57 J [64]**	**1.5 [1.6]**	NA
	10/11			<10 [<10]	**1.9 [2.0]**	**2.0 [2.1]**	<1.0 [<1.0]	**1.3 [1.3]**	<1.0 [<1.0]	**14 [15]**	<5.0 [<5.0]	**2.6 [<1.0]**	NA
	4/12			**8.7 J [6.7 J]**	**1.2 [1.7]**	**2.3 [3.3]**	<0.18 [<0.18]	**0.76 J [1.2]**	<0.090 [<0.090]	**9.5 [15]**	<1.9 [<1.9]	**2.4 [2.6]**	NA
	10/12			<10 [<10]	**0.69 J [0.70]**	**0.16 J [0.14 J]**	<1.0 [<1.0]	**0.36 J [0.39 J]**	<1.0 [<1.0]	**1.4 J [1.2 J]**	<5.3 [<5.0]	**2.3 [2.7]**	NA
	4/13			<10 [<10]	**1.1 [1.1]**	**0.32 J [0.28 J]**	<1.0 [<1.0]	**0.67 J [0.68 J]**	<1.0 [<1.0]	**7.7 [8.0]**	<5.1 [<5.1]	**1.7 [1.4]**	NA
	7/13			**5.1 J [8.7 J]**	**1.9 [1.8]**	**0.17 J [0.18 J]**	<1.0 [<1.0]	**1.0 [0.96J]**	<1.0 [<1.0]	**11 [9.4]**	**2.5 [2.5]**	**0.89 J [0.96 J]**	<1,000 [<1,000]
	10/13			<10	**2.9**	**0.21 J**	<1.0	**1.3**	<1.0	**13**	**2.6 J**	**0.83 J**	NA
	1/14			<10 J [<10 J]	**2.4 [2.6]**	**0.19 J** [<1.0]	<1.0 [<1.0]	**0.94 J [1.1]**	<1.0 [<1.0]	**11 [13]**	**5.1 J** [<10]	**2.0 [1.7]**	NA
	4/14			<10 [<10]	**3.2 [3.3]**	**0.25 J [0.27 J]**	<1.0 [<1.0]	**1.2 [1.1]**	<1.0 [<1.0]	**13 [13]**	**3.9 J [5.6 J]**	**1.4 [1.9]**	NA
	10/14			**18 J [38 J]**	**1.7 [1.9]**	**0.16 J [0.18 J]**	**0.27 J** [<0.1]	**1.2 [1.3]**	<1.0 [<1.0]	**5.9 [6.4]**	**3.1 J [2.3 J]**	**1.8 [1.3]**	NA
	4/15			**15 [8.4 J]**	**3.5 [3.7]**	<1.0 **[0.36 J]**	<1.0 [<1.0]	**1.3 [1.2]**	<1.0 [<1.0]	**19 [18]**	**2.7 J [3.6 J]**	**2.6 [2.7]**	NA
	7/16			<5.0 J **[12 J]**	**1.7 [1.6]**	<1.0 [<1.0]	<1.0 [<1.0]	**0.73 J [0.71 J]**	<1.0 [<1.0]	**4.6 [4.2]**	**2.0 J [1.4 J]**	**1.1 [1.0 J]**	NA
MW-9[C] (Replaced by MW-9S)	4/11	365.6	356	<10	**0.91 J**	**29**	<1.0	**2.6**	<1.0	**89**	<5.3	**5.4**	<500
	10/11			<10	**1.2**	**4.2**	<1.0	**1.8**	<1.0	**41 J**	<5.0	**7.6**	<500
	4/12			**7.5 J**	**1.1**	**18**	<0.18	**1.5**	<0.090	**67**	<1.9	**6.3**	<500
	10/12			<10	**1.9 J**	**4.7**	<1.0	**3.2**	<1.0	**84**	<5.0	**3.9**	NA
	4/13			**12 J**	**0.95 J**	**19**	<1.0	**1.6**	<1.0	**62**	<5.1	**5.9**	<1,000
	7/13			<10	**1.9**	**12**	<1.0	**2.0**	<1.0	**45**	<1.0	**2.0**	<1,000
	10/13			<5.0	**2.9**	**10**	<1.0	**2.6**	<1.0	**60**	<5.0	**5.2**	<500
	1/14			<10 J	**1.1**	**13**	<1.0	**1.6**	<1.0	**54**	<10	**7.2**	<500
	4/14			<10	**1.0**	**19**	<1.0	**2.2**	<1.0	**74**	<10	**5.7**	<500
	10/14			<10 J	**1.5**	**8.8**	<1.0	**2.2**	**0.82 J**	**72**	<10	**5.9**	<500
	4/15			<10	**1.4**	**22**	<1.0	**2.5**	<1.0	**79**	<11	**6.5**	<500
	7/16			<5.0 J	**1.3**	**13**	<1.0	**1.9**	<1.0	**50**	**0.66 J**	**2.7**	<1,000
MW-17[D] (Replaced by MW-17R)	4/11	365.7	356.1	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.19 J**	<1.0	<3.0 J	<5.0	<1.0	<500
	4/12			<2.7	**0.22 J**	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	**0.55 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<1,000
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.2	<1.2	<1,000
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.4	<1.1	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	**2,700**
	10/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	<1,000

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Monitoring Well	Sampling Date	Screen Elevation (feet amsl) Top	Bottom	Acetone	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				**50**	**1**	**5**	**5**	**5**	**5**	**5**	**5**	**1**	**50[G]**
MW-18	4/11	325.15	316.15	<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.23 J**	<1.0	<3.0 J	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	**0.27 J**	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	4/13			<10	<1.0	<1.0	<1.0	**0.60 J**	<1.0	<3.0	<4.8	<0.95	<1,000
	7/13			<10	<1.0	<1.0	<1.0	**0.25 J**	<1.0	<3.0	<1.0	<1.0	<1,000
	10/13			<10	<1.0	<1.0	<1.0	**0.19 J**	<1.0	<3.0	<5.4	<1.1	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	10/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	<1,000
MW-23S	4/11	364.1	354.1	<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.31 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<1,000
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1,000
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	10/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500 J
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	<1,000
MW-23I	4/11	341.2	336.2	<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.29 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<4.8	<9.5	<1,000
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1,000
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	10/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	<1,000
MW-27	4/11	362.5	354.5	**3.9 J**	**3.1**	**5.1**	<1.0	**5.7**	<1.0	**9.1**	**1,000**	<11	NA
	10/11			<10	**2.1**	**2.2**	<1.0	**1.3**	<1.0	**3.1**	**36**	**2.7**	NA
	4/12			<2.7	**1.5**	**1.4**	<0.18	**0.45 J**	<0.090	**2.2 J**	<1.9	**2.7**	NA
	10/12			<10	**1.1**	<1.0	<1.0	**0.22 J**	<1.0	<3.0	<5.0	**2.2**	NA
	4/13			<10	**1.1**	**0.88 J**	<1.0	**0.34 J**	<1.0	**1.4 J**	11	**2.4**	NA
	7/13			<10	**2.0**	<1.0	<1.0	**0.60 J**	<1.0	<3.0	**1.5**	**1.1**	<1,000
	10/13			<10	**2.6**	<1.0	<1.0	**0.75 J**	<1.0	**3.9**	<5.0	**0.73 J**	NA
	1/14			<10 J	**0.89 J**	<1.0	<1.0	**0.33 J**	<1.0	**0.22 J**	<12	**0.75 J**	NA
	4/14			<10	**1.0**	<1.0	<1.0	**0.41 J**	<1.0	**0.92 J**	**0.60 J**	**0.48 J**	NA
	10/14			<10	**2.0**	**0.12 J**	<1.0	**1.2**	<1.0	**3.5**	**16**	**1.4**	NA
	4/15			<10	**2.4**	**0.98 J**	<1.0	**1.9**	<1.0	**9.5**	**20**	**1.0 J**	NA
	7/16			**7.5 J**	**1.2**	<1.0	<1.0	**0.43 J**	<1.0	**2.4**	**2.4 J**	**1.2**	NA

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McKesson Envirosystems Site
Syracuse, New York

ARCADIS Design & Consultancy for natural and built assets

Monitoring Well	Sampling Date	Screen Elevation (feet amsl) Top	Bottom	Acetone	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				**50**	**1**	**5**	**5**	**5**	**5**	**5**	**5**	**1**	**50[G]**
MW-28	4/11	363.6	355.6	**4.3 J**	**2.3**	<1.0	<1.0 B	**0.11 J**	<1.0	<3.0	**3.9 J**	**0.75 J**	<500
	10/11			<10	**1.8**	<1.0	<1.0	**0.38 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	**1.4**	<0.10	<0.18	**0.22 J**	<0.090	<0.36	<1.8	**0.48 J**	<500
	10/12			<10	**1.9**	<1.0	<1.0	**0.16 J**	<1.0	<3.0	<5.0	**0.62 J**	NA
	4/13			<10	**1.7**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	**0.32 J**	**410 J**
	7/13			<10	**1.7**	<1.0	<1.0	**0.22 J**	<1.0	<3.0	<1.0	**0.35 J**	<1,000
	10/13			<10	**1.7**	<1.0	<1.0	**0.49 J**	<1.0	**0.68 J**	<5.0	**0.70 J**	<500
	1/14			<10 J	**1.2**	<1.0	<1.0	**0.22 J**	<1.0	<3.0	<10	**0.75 J**	<500
	4/14			**13**	**1.7**	<1.0	<1.0	**0.29 J**	<1.0	<3.0	<10	**0.72 J**	<500
	10/14			**51**	**1.3**	<1.0	**0.41 J**	**1.1**	<1.0	**0.90 J**	**1.2 J**	**1.3**	<500
	4/15			**7.6 J**	**1.6**	<1.0	<1.0	**0.39 J**	<1.0	**0.75 J**	**1.2 J**	**1.3**	<500
	7/16			<5.0 J	**1.1**	<1.0	<1.0	**0.41 J**	<1.0	**0.50 J**	**0.94 J**	<1.0	<1,000
MW-29	4/11	362.9	345.9	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	**0.22 J**	<1.0	<3.0 J	<5.0	**0.22 J**	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	NA
	7/13			<10	**0.26 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	NA
	10/13			<10	**0.32 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<11	<1.1	NA
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	10/14[F]			**790,000 D**	<500 D	<500 D	<500 D	<500 D	<500 D	<1,500 D	<10	<1.0	NA
	12/14[F]			**370 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	4/15[F]			**12**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<12	**0.66 J**	NA
	7/16[F]			**30 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<11	<1.1	NA
MW-30	4/11	363.5	355.5	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	**0.18 J**	<1.0	<3.0 J	<5.0	<1.0	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	10/12			<10	**0.099 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	7/13			<10	**0.20 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	**0.30 J**	NA
	10/13			<10	**0.29 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	**0.85 J**	NA
	1/14			<10 J	**0.19 J**	<1.0	<1.0	<1.0	<1.0	**0.14 J**	<11	<1.1	NA
	4/14			<10	**0.37 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**0.43 J**	NA
	10/14			<10	**0.18 J**	<1.0	<1.0	<1.0	<1.0	**0.15 J**	<10	**1.5**	NA
	4/15			<10	**0.24 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<11	**2.0**	NA
	7/16			<5.0 J	**0.78 J**	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	NA
MW-31	4/11	363.7	355.4	<10	**8.3**	<1.0	<1.0	**0.77 J**	<1.0	**2.5 J**	<5.3	**2.3**	<500
	10/11			<10	**5.7**	<1.0	<1.0	**0.62 J**	<1.0	**1.5 J**	<5.0	**3.5**	<500
	4/12			**6.5 J**	**6.8**	**0.16 J**	<0.18	**0.65 J**	<0.090	**2.7 J**	<1.9	**2.1**	<500
	10/12			<10	**6.3 J**	**0.16 J**	<1.0	**0.44 J**	<1.0	**2.3 J**	<5.0	**0.90 J**	NA
	4/13			<10	**12**	**0.21 J**	<1.0	**1.3**	<1.0	**5.6**	<5.2	**1.1**	<1,000
	7/13			<10	**11**	<1.0	<1.0	**1.2**	<1.0	**5.1**	**0.72 J**	**1.6**	<1,000
	10/13			<10	**11**	**0.15 J**	<1.0	**1.4**	<1.0	**6.1**	<5.2	**2.2**	<500
	1/14			<10 J	**8.2**	<1.0	<1.0	**1.2**	<1.0	**6.3**	<10	**2.2**	NA
	4/14			<10	**7.5**	**0.22 J**	<1.0	**0.93 J**	<1.0	**4.6**	**0.75 J**	**1.9**	<500
	10/14			**7.1 J**	**6.5**	<1.0	<1.0	**1.4**	<1.0	**4.5**	**1.1 J**	**2.2**	<500
	3/15			<10 J	**9.1**	<1.0	<1.0	**1.3**	<1.0	**8.9**	**0.52 J**	**1.6**	<500
	7/16			**13 J**	**9.6**	<1.0	<1.0	**1.1**	<1.0	**4.8**	<10	**1.3**	<1,000

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Table 3
Summary of Groundwater Monitoring Data, April 2011 through July 2016
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

Monitoring Well	Sampling Date	Screen Elevation (feet amsl) Top	Bottom	Acetone	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				**50**	**1**	**5**	**5**	**5**	**5**	**5**	**5**	**1**	**50[G]**
MW-32	4/11	364	356	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	**0.19 J**	<1.0	<3.0 J	<5.0	**1.5**	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	**1.1**	<500
	10/12			<10	<1.0 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	**2.2**	NA
	4/13			<10	**0.098 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	**0.91 J**	<1,000
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	**0.82 J**	<1,000
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**1.2**	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**0.85 J**	<500
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**1.1**	<500
	10/14			<10 J	**0.10 J**	<1.0	<1.0	**0.20 J**	<1.0	<3.0	<10	**1.5**	<500
	3/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<11	**1.1**	<500
	7/16			<5.0	<1.0	<1.0	<1.0	<1.0	<1.0 J	<2.0	<10	<1.0	<1,000
MW-33	4/11	344.1	356.1	<10	**0.79 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	**1.9**	NA
	10/11			<10	**0.58 J**	<1.0	<1.0	**0.12 J**	<1.0	<3.0	<5.3	**1.9**	NA
	4/12			<2.7	**0.11 J**	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	**1.3**	NA
	10/12			<10	**0.33 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	**2.1**	NA
	4/13			<10	**1.1**	<1.0	<1.0	<1.0	<1.0	<3.0	<4.8 J	**2.1 J**	NA
	7/13			<10	**0.46 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	**0.96 J**	<1,000
	10/13			<10	**1.1**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**0.69 J**	NA
	1/14			<10 J	**0.69 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**1.7**	NA
	4/14			<10	**1.1**	<1.0	<1.0	<1.0	<1.0	<3.0	**0.32 J**	**2.3**	NA
	10/14			<10 J	**0.45 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**1.3**	NA
	4/15			<10	**0.57 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<11	**2.2**	NA
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	**1.1**	NA
MW-34	4/11	362.7	354.7	**16**	**1.7**	<1.0	<1.0	**0.74 J**	<1.0	**2.0 J**	**10**	**2.7**	<500
	10/11			**350**	**1.2**	<1.0	<1.0	**0.71 J**	<1.0	**0.90 J**	<5.6	**2.5**	<500
	4/12			**37 J**	**1.3**	<0.10	<0.18	**0.59 J**	<0.090	**1.4 J**	**2.1 J**	**2.4**	<500
	10/12			**61**	**1.6**	<1.0	<1.0	**0.78 J**	<1.0	**2.2 J**	<5.2	**2.7**	NA
	4/13			**26 J**	**1.3**	<1.0	<1.0	**0.60 J**	<1.0	**2.3 J**	<4.8	**1.7**	<1,000
	7/13			**32**	**1.3**	<1.0	<1.0	**0.66 J**	<1.0	**2.0 J**	**0.56 J**	**0.92 J**	NA
	10/13			**15**	**1.2**	<1	<1.0	**0.69 J**	**0.13 J**	**2.2 J**	<5.0	**1.3**	<500
	1/14			**15 J**	**0.91 J**	<1.0	<1.0	**0.44 J**	<1.0	**1.3 J**	<10	**1.9**	<500
	4/14			**57**	**1.4**	**0.11 J**	<1.0	**0.62 J**	<1.0	**3.6**	**2.6 J**	**1.6**	<500
	10/14			**31 J**	**1.4**	<1.0	<1.0	**0.75 J**	<1.0	**1.9 J**	**0.77 J**	**1.9**	<500
	3/15			**32**	**1.5**	<1.0	<1.0	**0.94 J**	<1.0	**3.3**	<10	**2.7**	<500
	7/16			**22**	**1.6**	<1.0	<1.0	**0.75 J**	<1.0 J	**3.5**	**0.95 J**	**2.0**	<1,000
MW-35	4/11	363	355	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<500
	4/12			**14 J**	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
	10/12			<36 B	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	**470 J**
	7/13			**4.2 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0 J	<1.0	<1,000
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2 J	<1.0	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**1.6**	<500
	10/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	<500
	4/15			<10	<1.0	<1.0	<1.0	**0.44 J**	<1.0	<3.0	<10	<1.0	<500
	7/16			<5.0	<1.0	<1.0	<1.0	<1.0	<1.0 J	<2.0	<10	<1.0	<1,000

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Monitoring Well	Sampling Date	Screen Elevation (feet amsl) Top	Bottom	Acetone	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				**50**	**1**	**5**	**5**	**5**	**5**	**5**	**5**	**1**	**50[G]**
MW-36[E]	4/11	363.6	355.6	<10	**4.3**	<1.0	<1.0	**0.95 J**	<1.0	**4.4**	**310**	**4.0**	NA
(Replaced by MW-36R)	10/11			<10	**1.8**	<1.0	<1.0	**0.66 J**	<1.0	**1.4 J**	**92**	**3.6**	NA
	12/11			NA	NA	NA	NA	NA	NA	NA	**120**	NA	NA
	4/12			**6.3 J**	**1.6**	**0.16 J**	<0.18	**0.45 J**	<0.090	**1.9 J**	**150**	**4.1**	NA
	10/12			<10	**1.5 J**	<1.0	<1.0	**0.54 J**	<1.0	**2.2 J**	**10**	**3.1**	NA
	4/13			<10	**1.8**	**0.14 J**	<1.0	**0.53 J**	<1.0	**2.9 J**	**150**	**4.0**	NA
	7/13			<10	**1.4**	**0.11 J**	<1.0	**0.46 J**	<1.0	**1.7 J**	**97**	**2.0**	<1,000
	10/13			<10	**1.3**	<1.0	<1.0	**0.45 J**	<1.0	**1.7 J**	**110**	**1.9**	NA
	1/14			<10 J	**1.2**	<1.0	<1.0	**0.42 J**	<1.0	**1.4 J**	**180**	**4.1**	NA
	4/14			**5.5 J**	**1.1**	**0.12 J**	<1.0	**0.42 J**	<1.0	**1.6 J**	**140**	**3.4**	NA
	10/14			<10 J	**0.62 J**	<1.0	<1.0	**0.32 J**	<1.0	**0.60 J**	**74**	**3.3**	NA
	3/15			<10	**0.85 J**	<1.0	<1.0	**0.42 J**	<1.0	**0.88 J**	**25**	**3.8**	NA
	7/16			**17 J**	**0.48 J**	<1.0	<1.0	**0.41 J**	<1.0	**0.46 J**	**7.9 J**	**3.4**	NA
TW-01	4/11	365.1	355.4	<10	**0.21 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0 J	<5.6	**1.6**	<500
	4/12			<2.7	**0.11 J**	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	**1.7**	<500
	10/12			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	**1.9**	NA
	4/13			<10	**0.090 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	**0.98 J**	<1,000
	7/13			<10	**0.11 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	**1.0**	<1,000
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**1.1**	<500
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**0.98 J**	<500
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	**1.3**	<500
	10/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	**0.19 J**	<10	**1.4**	<500
	3/15			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<11	**1.1**	<500
	7/16			<5.0	<1.0	<1.0	<1.0	<1.0	<1.0 J	<2.0	<10	<1.0	<1,000
TW-02RR[B,E]	4/11	363.3	353.3	<10 [<10]	**2.1 [2.0]**	**1.2 [1.3]**	<1.0 [<1.0]	**0.74 J [0.75 J]**	<1.0 [<1.0]	**5.2 [5.3]**	**1.9 J [2.1 J]**	**3.4 [3.3]**	<500 [<500]
(Replaced by TW-02RRR)	10/11			<10 [<10]	**1.2 [1.1]**	**0.67 J [0.69 J]**	<1.0 [<1.0]	**0.53 J [0.48 J]**	<1.0 [<1.0]	**1.5 J [1.4 J]**	**1,300 D [1,500 D]**	**5.5 [6.2]**	<500 [<500]
	12/11			NA	NA	NA	NA	NA	NA	NA	**1,400**	NA	NA
	4/12			**15 J [13 J]**	**1.6 [1.5]**	**0.73 J [0.76 J]**	<0.18 [<0.18]	**0.51 J [0.48 J]**	<0.090 [<0.090]	**1.6 J [1.6 J]**	**1,400 J [1,600 J]**	<2.2 J [<2.2 J]	<500 [<500]
	10/12			<10 [<10]	**1.1 J [0.98 J]**	**0.29 J [0.27 J]**	<1.0 [<1.0]	**0.26 J [0.27 J]**	<1.0 [<1.0]	**0.91 J [0.89 J]**	<5.2 **[3.2 J]**	**2.2 [1.9]**	NA
	4/13			<10 [<10]	**1.4 [1.3]**	**0.60 J [0.64 J]**	<1.0 [<1.0]	**0.36 J [0.38 J]**	<1.0 [<1.0]	**1.5 J [1.5 J]**	**620 [700]**	**3.5 J [3.4 J]**	<1,000 [<1,000]
	7/13			<10 [<10]	**0.91 J [0.91 J]**	**0.25 J [0.26 J]**	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 J [**14 J**]	**0.72 J [0.70 J]**	**150 [170]**	**1.7 [1.8]**	<1,000 [<1,000]
	10/13			<10 [<10]	**0.60 J [0.60 J]**	<1.0 **[0.15 J]**	<1.0 [<1.0]	**0.20 J [0.17 J]**	**0.15 J [0.11 J]**	<3.0 [<3.0]	**90 [72]**	**2.1 [1.4]**	<500 [<500]
	1/14			<10 J [<10 J]	**1.1 [1.1]**	**0.27 J [0.33 J]**	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	0.69 J [0.77 J]	**660 [750 D]**	**1.8 J [3.7]**	<500 [<500]
	4/14			**8.0 J [10]**	**1.2 [1.2]**	**0.51 J [0.44 J]**	<1.0 [<1.0]	**0.18 J [0.17 J]**	<1.0 [<1.0]	**1.0 J [0.96 J]**	**1,300 J [1,700 J]**	**2.8 J [3.5 J]**	<500 [<500]
	10/14			<10 J [<10 J]	**1.3 [0.88 J]**	**0.18 J [0.12 J]**	<1.0 [<1.0]	**0.42 J [0.26 J]**	<1.0 [<1.0]	**1.2 J [0.46 J]**	**3.8 J [3.1 J]**	**2.8 [2.4]**	<500 [<500]
	3/15			<10 [<10]	**1.1 [0.99 J]**	**0.31 J [0.43 J]**	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	**0.81 J [0.75 J]**	**170 [150]**	**2.2 [1.7]**	<500 [<500]
	7/16			<5.0 [<5.0]	**0.68 J [0.70 J]**	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 J [<1.0 J]	**0.43 J [0.49 J]**	<10 [<10]	**1.4** [<1.0]	<1,000 [<1,000]
PZ-4D	4/11	350.8	345.9	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/12			<2.7	<0.080	<0.10	<0.18	**0.23 J**	<0.090	<0.36	<1.8	<0.21	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<4.8	<0.95	NA
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	NA
	10/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	4/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	10/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	NA

See Notes on Page 7

Table 3
Summary of Groundwater Monitoring Data, April 2011 through July 2016
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

Monitoring Well	Sampling Date	Screen Elevation (feet amsl) Top	Bottom	Acetone	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				**50**	**1**	**5**	**5**	**5**	**5**	**5**	**5**	**1**	**50[G]**
PZ-4S	4/11	362.79	357.88	<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
	4/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	7/13			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	NA
	1/14			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10	<1.0	NA
	10/14			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<11	<1.1	NA
	4/15			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<10 J	<1.0 J	NA
	7/16			<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10	<1.0	NA

See Notes on Page 7

Table 3
Summary of Groundwater Monitoring Data, April 2011 through July 2016
Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

General Notes:

1. Concentrations are presented in micrograms per liter, which is equivalent to parts per billion (ppb).
2. Compounds detected are indicated by bold-faced type.
3. Detections exceeding NYSDEC Groundwater Standards (TOGS 1.1.1; NYSDEC 1998) are indicated by shading.
4. Duplicate sample results are presented in brackets (e.g., [14]).
5. The sampling event in June 2010 was an interim sampling event to check for the presence of methylene chloride.
6. Results following the April 2013 sampling event reflect groundwater quality conditions after the shutdown of the in-situ bioremediation treatment and closed hydraulic systems.

Superscript Notes:

[A] = Data presented is total xylenes (m- and p-xylenes and o-xylenes).
[B] = Wells MW-8S and TW-02R were abandoned in August 2004 and replacement wells MW-8SR and TW-02RR were installed in August 2004.
[C] = Well MW-9 was abandoned during Operable Unit No. 1 soil remediation activities (1994).
[D] = Well/piezometer MW-17 was abandoned from November 1997 through January 1998.
[E] = Wells/piezometers MW-36, PZ-5S, PZ-W, and TW-02RR were abandoned in November 2010. Replacement wells TW-02RRR (replaced TW-02RR) and MW-36R (replaced MW-36 and PZ-W) were installed in November 2010.
[F] = Detections of acetone at well MW-29 since the October 2014 sampling event are attributed to the repair of the PVC stick-up on June 26, 2014, and are not site-related.
[G] = Methanol has a New York State Department of Health drinking water standard of 50 ppb. This standard (i.e., maximum contaminant level) is for an "unspecified organic contaminant" (NYCRR Title 10, Part 5, Subpart 5-1).

Abbreviations:

amsl = above mean sea level (National Geodetic Vertical Datum of 1929)
NA = compound was not analyzed for in the sample
NYCRR = New York State Codes, Rules, and Regulations
NYSDEC = New York State Department of Environmental Conservation
PVC = polyvinyl chloride
TOGS = Technical and Operational Guidance Series

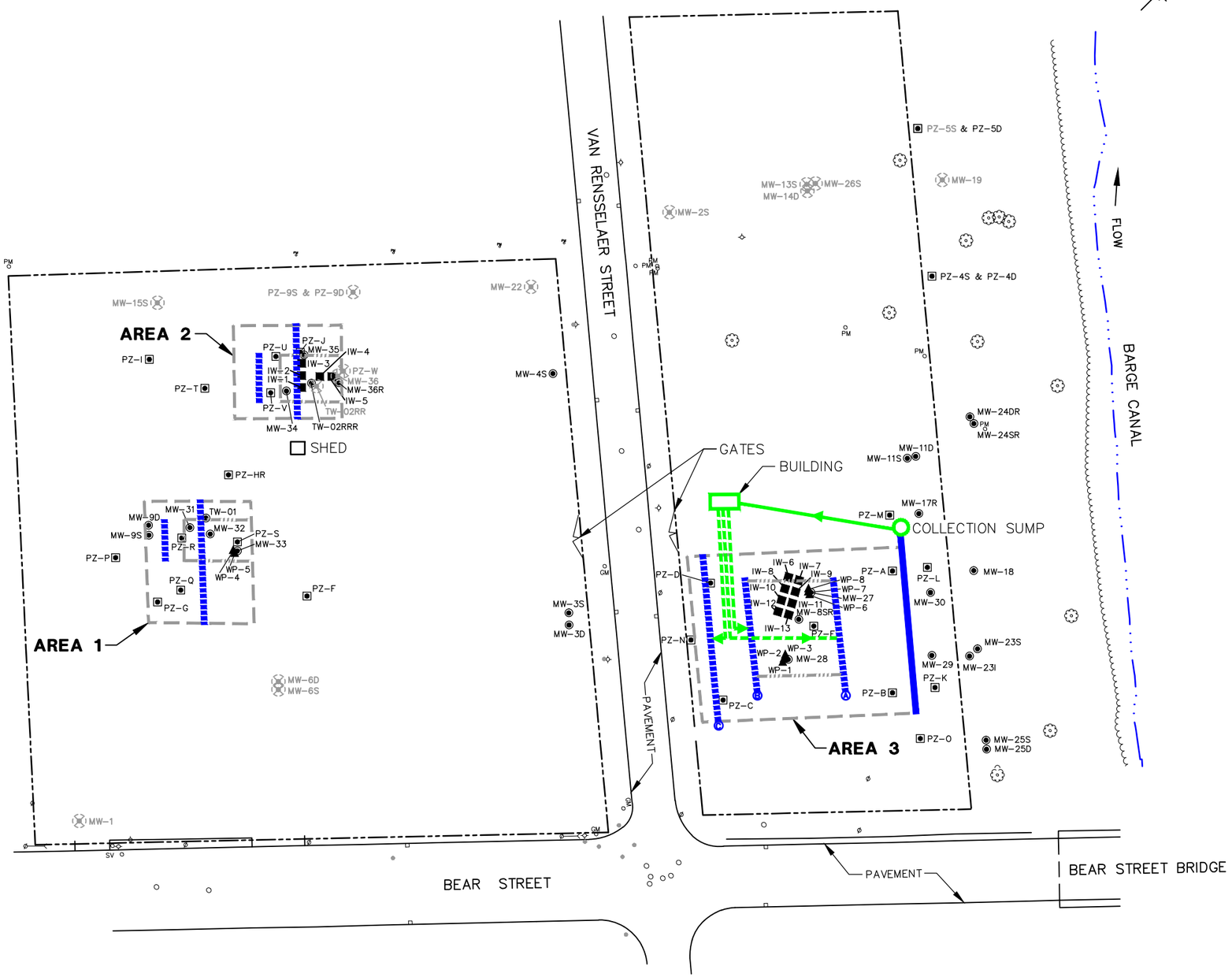
Analytical Qualifiers:

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

Reference:

NYSDEC. 1998. Technical Operational Guidance Series 1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June. Available online at: http://www.dec.ny.gov/docs/water_pdf/togs111.pdf

FIGURES



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPELINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- PZ-W REMOVED/DECOMMISSIONED WELL/PIEZOMETER
- WP-8 WELL POINT
- IW-3 OXYGEN INFUSION WELL
- APPROXIMATE BOUNDARY OF OPERABLE UNIT 2 TREATMENT AREA
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATIONS OF CONSTITUENTS OF CONCERN
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH
- (A) AREA 3 GROUNDWATER INFILTRATION TRENCH IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- TREE LINE
- EDGE OF BARGE CANAL

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. LOCATIONS ARE APPROXIMATE.
3. STANDPIPES ARE LOCATED IN AREAS 1 AND 2, SCREENED WITHIN THE INFILTRATION TRENCHES. ADDITIONAL STANDPIPES ARE LOCATED IN AREA 2 OUTSIDE OF THE INFILTRATION TRENCHES. STANDPIPE LOCATIONS ARE NOT SHOWN ON THE FIGURE.
4. DURING HYDRAULIC MONITORING EVENTS, BARGE CANAL SURFACE-WATER LEVELS ARE MEASURED FROM A DEMARCATED REFERENCE POINT AT THE CENTER OF THE BEAR STREET BRIDGE (LOCATION NOT SHOWN ON THIS FIGURE).

0 100' 200'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
MONITORING MEMO

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: LAF, GMS, K. SARTORI, R. ALLEN LD: PIC: PM: B. BYRNES TM: LYR: ON=*;OFF=*REF, AREA-HIGHER, ITREE
G:\ENV\CADD\SYRACUSE\ACTIB\026003\FY17\00190\DWG\MONITOR-MEMO\26003B13.DWG LAYOUT: 1 SAVED: 8/29/2016 1:34 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/29/2016 1:36 PM BY: ALLEN, ROYCE
XREFS: IMAGES: PROJECTNAME: ---
26003X01
26003XBL

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- EDGE OF BARGE CANAL
- PROPERTY LINE
- MW-11S — GROUNDWATER MONITORING WELL
- OR — DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A — PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATIONS OF CONSTITUENTS OF CONCERN
- GROUNDWATER WITHDRAWAL TRENCH (INACTIVE)
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION (INACTIVE)
- PIPING TO BUILDING
- PIPING FROM BUILDING
- (365.29) — GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL)
- 361.0 — GROUNDWATER ELEVATION CONTOUR (FEET AMSL) DASHED WHERE INFERRED

NOTES:

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

0 100' 200'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
MONITORING MEMO

POTENTIOMETRIC SURFACE OF THE SHALLOW HYDROGEOLOGIC UNIT SAND LAYER JULY 8, 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: SYRACUSE, N.Y. DIV/GROUP: ENV/IM-DV DB: N. SMITHGALL, R. BASSETT, R. ALLEN PM/TM: D. PENNIMAN TR: C. SOBOL LYR:ON=*;OFF=*REF
G:\ENV\CAD\SYRACUSE\ACTIB\026003\FY17\001900\DWG\MONITOR-MEMO\26003W02.dwg LAYOUT: 2 SAVED: 8/29/2016 1:38 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/29/2016 1:39 PM BY: ALLEN, ROYCE
XREFS: IMAGES: PROJECTNAME: ----
26003X01
26003XBL

TW-02RRR

Date	4/5/2011	10/27/2011	12/15/2011	4/12/2012	10/5/2012	4/8/2013	7/25/2013	10/24/13	1/24/2014	4/17/2014	10/21/2014	3/31/2015	7/5/2016
Acetone	<10 [<10]	<10 [<10]	NA	15 J [13 J]	<10 [<10]	<10 [<10]	<10 [<10]	<10 [<10]	<10 J [<10 J]	8.0 J [10]	<10 J [<10 J]	<10 [<10]	<5.0 [<5.0]
Benzene	2.1 [2.0]	1.2 [1.1]	NA	1.6 [1.5]	1.1 J [0.98 J]	1.4 [1.3]	0.91 J [0.91 J]	0.60 J [0.60 J]	1.1 [1.1]	1.2 [1.2]	1.3 [0.88 J]	1.1 [0.99 J]	0.68 J [0.70 J]
Ethylbenzene	1.2 [1.3]	0.67 J [0.69 J]	NA	0.73 J [0.76 J]	0.29 J [0.27 J]	0.60 J [0.64 J]	0.25 J [0.26 J]	<1.0 [0.15 J]	0.27 J [0.33 J]	0.51 J [0.44 J]	0.18 J [0.12 J]	0.31 J [0.43 J]	<1.0 [<1.0]
Methylene Chloride	<1.0 [<1.0]	<1.0 [<1.0]	NA	<0.18 [<0.18]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]
Toluene	0.74 J [0.75 J]	0.53 J [0.48 J]	NA	0.51 J [0.48 J]	0.26 J [0.27 J]	0.36 J [0.38 J]	<1.0 [<1.0]	0.20 J [0.17 J]	<1.0 [<1.0]	0.18 J [0.17 J]	0.42 J [0.26 J]	<1.0 [<1.0]	<1.0 [<1.0]
Trichloroethene	<1.0 [<1.0]	<1.0 [<1.0]	NA	<0.090 [<0.090]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 J [14 J]	0.15 J [0.11 J]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]
Xylenes (total)	5.2 [5.3]	1.5 J [1.4 J]	NA	1.6 J [1.6 J]	0.91 J [0.89 J]	1.5 J [1.5 J]	0.72 J [0.70 J]	<3.0 [<3.0]	0.69 J [0.77 J]	1.0 J [0.96 J]	1.2 J [0.46 J]	0.81 J [0.75 J]	0.43 J [0.49 J]
Aniline	1.9 J [2.1 J]	1300 D [1500 D]	1400	1400 J [1600 J]	<5.2 [3.2 J]	620 [700]	150 [170]	90 [72]	660 [750 D]	1300 J [1700 J]	3.8 J [3.1 J]	170 [150]	<10 [<10]
N,N-Dimethylaniline	3.4 [3.3]	5.5 [6.2]	NA	<2.2 J [<2.2 J]	2.2 [1.9]	3.5 J [3.4 J]	1.7 [1.8]	2.1 [1.4]	1.8 J [3.7]	2.8 J [3.5 J]	2.8 [2.4]	2.2 [1.7]	1.4 [<1.0 U]
Methanol	<500 [<500]	<500 [<500]	NA	<500 [<500]	NA	<1000 [<1000]	<1000 [<1000]	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	<1000 [<1000]

MW-34

Date	4/5/2011	10/26/2011	4/12/2012	10/4/2012	4/8/2013	7/26/2013	10/24/13	1/24/2014	4/17/2014	10/21/2014	3/31/2015	7/5/2016
Acetone	16	350	37 J	61	26 J	32	15	15 J	57	31 J	32	22
Benzene	1.7	1.2	1.3	1.6	1.3	1.3	1.2	0.91 J	1.4	1.4	1.5	1.6
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	0.11 J	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.74 J	0.71 J	0.59 J	0.78 J	0.60 J	0.66 J	0.69 J	0.44 J	0.62 J	0.75 J	0.94 J	0.75 J
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	0.13 J	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	2.0 J	0.90 J	1.4 J	2.2 J	2.3 J	2.0 J	2.2 J	1.3 J	3.6	1.9 J	3.3	3.5
Aniline	10	<5.6	2.1 J	<5.2	<4.8	0.56 J	<5.0	<10	2.6 J	0.77 J	<10	0.95 J
N,N-Dimethylaniline	2.7	2.5	2.4	2.7	1.7	0.92 J	1.3	1.9	1.6	1.9	2.7	2.0
Methanol	<500	<500	<500	NA	<1000	NA	<500	<500	<500	<500	<500	<1000

MW-35

Date	4/5/2011	10/26/2011	4/11/2012	10/4/2012	4/4/2013	7/24/2013	10/23/13	1/23/2014	4/16/2014	10/21/2014	4/1/2015	7/5/2016
Acetone	<10	<10	14 J	<36 B	<10	4.2 J	<10	<10 J	<10 J	<10 J	<10	<5.0
Benzene	<1.0	<1.0	<0.080	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.44 J
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.6	<5.1	<1.8	<5.0	<5.1	<1.0 J	<5.2 J	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1	<1.0	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	NA	470 J	<1000	<500	<500	<500	<500	<500	<1000

MW-36R

Date	4/5/2011	10/26/2011	12/15/2011	4/12/2012	10/5/2012	4/8/2013	7/26/2013	10/24/13	1/24/14	4/17/2014	10/21/2014	3/31/2015	7/6/2016
Acetone	<10	<10	NA	6.3 J	<10	<10	<10	<10	<10 J	5.5 J	<10 J	<10	17 J
Benzene	4.3	1.8	NA	1.6	1.5 J	1.8	1.4	1.3	1.2	1.1	0.62 J	0.85 J	0.48 J
Ethylbenzene	<1.0	<1.0	NA	0.16 J	<1.0	0.14 J	0.11 J	<1.0	<1.0	0.12 J	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	NA	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.95 J	0.66 J	NA	0.45 J	0.54 J	0.53 J	0.46 J	0.45 J	0.42 J	0.42 J	0.32 J	0.42 J	0.41 J
Trichloroethene	<1.0	<1.0	NA	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	4.4	1.4 J	NA	1.9 J	2.2 J	2.9 J	1.7 J	1.7 J	1.4 J	1.6 J	0.60 J	0.88 J	0.46 J
Aniline	310	92	120	150	10	150	97	110	180	140	74	25	7.9 J
N,N-Dimethylaniline	4.0	3.6	NA	4.1	3.1	4.0	2.0	1.9	4.1	3.4	3.3	3.8	3.4
Methanol	NA	NA	NA	NA	NA	NA	<1000	NA	NA	NA	NA	NA	NA

MW-4S

Date	4/11/2012	7/24/2013	4/16/2014	4/1/2015	7/6/2016
Acetone	<2.7	<10	<10	<10	<5.0
Benzene	<0.080	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<0.10	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<0.18	<1.0	<1.0	<1.0	<1.0
Toluene	<0.15	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<0.090	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<0.36	<3.0	<3.0	<3.0	<2.0
Aniline	<1.8	<1.0	<10	<10	<10
N,N-Dimethylaniline	<0.21	<1.0	<1.0	<1.0	<1.0
Methanol	NA	NA	NA	NA	NA

TW-01

Date	4/4/2011	10/25/2011	4/11/2012	10/4/2012	4/4/2013	7/25/2013	10/23/13	1/23/14	4/17/2014	10/22/2014	3/31/2015	7/5/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10 J	<10 J	<5.0
Benzene	0.21 J	<1.0	0.11 J	<1.0	0.090 J	0.11 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0 J	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	0.19 J	<3.0	<2.0
Aniline	<5.3	<5.6	<1.8	<5.2	<5.2	<1.0	<5.0	<10	<10	<10	<11	<10
N,N-Dimethylaniline	<1.1	1.6	1.7	1.9	0.98 J	1.0	1.1	0.98 J	1.3	1.4	1.1	<1.0
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	<500	<500	<500	<1000

MW-3S

Date	4/6/2011	10/27/2011	4/11/2012	10/4/2012	4/4/2013	7/24/2013	10/23/13	1/22/14	4/15/2014	10/21/2014	4/2/2015	7/7/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<5.0
Benzene	<1.0	<1.0	<0.080	0.27 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.35 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3 J	<5.0	<1.8	<5.0	<5.2	<1.0	<5.0	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1 J	<1.0	<0.21	<0.61 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-33

Date	4/5/2011	10/26/2011	4/11/2012	10/5/2012	4/4/2013	7/24/2013	10/23/13	1/23/14	4/17/2014	10/22/2014	4/1/2015	7/6/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<5.0
Benzene	0.79 J	0.58 J	0.11 J	0.33 J	1.1	0.46 J	1.1	0.69 J	1.1	0.45 J	0.57 J	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.12 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<5.3	<1.8	<5.1	<4.8 J	<1.0	<5.0	<10	0.32 J	<10	<11	<10
N,N-Dimethylaniline	1.9	1.9	1.3	2.1 J	2.1 J	0.96 J	0.69 J	1.7	2.3	1.3	2.2	1.1
Methanol	NA	NA	NA	NA	NA	<1000	NA	NA	NA	NA	NA	NA

MW-9S

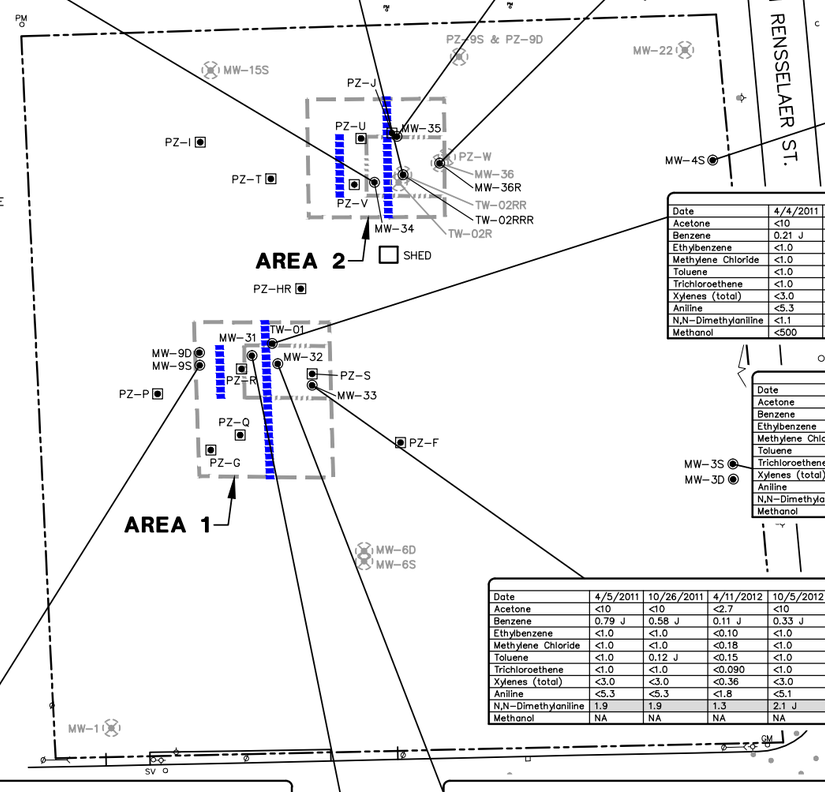
Date	4/5/2011	10/25/2011	4/12/2012	10/5/2012	4/8/2013	7/26/2013	10/25/2013	1/24/14	4/18/2014	10/22/2014	4/1/2015	7/6/2016
Acetone	<10	<10	7.5 J	<10	12 J	<10	<5.0	<10 J	<10	<10 J	<10	<5.0
Benzene	0.91 J	1.2	1.1	1.9 J	0.95 J	1.9	2.9	1.1	1.0	1.5	1.4	1.3
Ethylbenzene	29	4.2	18	4.7	19	12	10	13	19	8.8	22	13
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	2.6	1.8	1.5	3.2	1.6	2.0	2.6	1.6	2.2	2.2	2.5	1.9
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.82 J	<1.0	<1.0
Xylenes (total)	89	41 J	67	84	62	45	60	54	74	72	79	50
Aniline	<5.3	<5.0	<1.9	<5.0	<5.1	<1.0	<5.0	<10	<10	<10	<11	0.66 J
N,N-Dimethylaniline	5.4	7.6	6.3	3.9	5.9	2.0	5.2	7.2	5.7	5.9	6.5	2.7
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	<500	<500	<500	<1000

MW-32

Date	4/4/2011	10/25/2011	4/11/2012	10/5/2012	4/5/2013	7/25/2013	10/23/13	1/23/14	4/17/2014	10/21/2014	3/31/2015	7/5/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<5.0
Benzene	<1.0	<1.0	<0.080	<1.0 J	0.098 J	<1.0	<1.0	<1.0	<1.0	0.10 J	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.19 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.20 J	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0 J	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<5.0	<1.8	<5.1	<5.1	<1.0	<5.0	<10	<10	<10	<11	<10
N,N-Dimethylaniline	<1.1	1.5	1.1	2.2	0.91 J	0.82 J	1.2	0.85 J	1.1	1.5	1.1	<1.0
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	<500	<500	<500	<1000

MW-31

Date	4/5/2011	10/25/2011	4/12/2012	10/5/2012	4/5/2013	7/25/2013	10/24/13	1/24/14	4/17/2014	10/23/2014	3/31/2015	7/6/2016
Acetone	<10	<10	6.5 J	<10	<10	<10	<10	<10 J	<10	7.1 J	<10 J	13 J
Benzene	8.3	5.7	6.8	6.3 J	12	11	11	8.2	7.5	6.5	9.1	9.6
Ethylbenzene	<1.0	<1.0	0.16 J	0.16 J	0.21 J	<1.0	0.15 J	<1.0	0.22 J	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.77 J	0.62 J	0.65 J	0.44 J	1.3	1.2	1.4	1.2	0.93 J	1.4	1.3	1.1
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	2.5 J	1.5 J	2.7 J	2.3 J	5.6	5.1	6.1	6.3	4.6	4.5	8.9	4.8
Aniline	<5.3	<5.0	<1.9	<5.0	<5.2	0.72 J	<5.2	<10	0.75 J	1.1 J	0.52 J	<10
N,N-Dimethylaniline	2.3	3.5	2.1	0.90 J	1.1	1.6	2.2	2.2	1.9	2.2	1.6	1.3
Methanol	<500	<500	<500	NA	<1000	<1000	<500	NA	<500	<500	<500	<1000



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 CONSTITUENT OF CONCERN (COC) CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE COC PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COCS WITH CURRENT OR PAST DETECTIONS ARE PRESENTED ON THIS FIGURE.
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. D = CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS.
10. B = COMPOUND FOUND IN ASSOCIATED METHOD BLANK.
11. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
12. NS = GQS NOT AVAILABLE.
13. RESULTS FOR DUPLICATE SAMPLES ARE SHOWN IN BRACKETS NEXT TO PARENT SAMPLE RESULTS.
14. PPB = PARTS PER BILLION.
15. RESULTS FOLLOWING THE APRIL 2013 SAMPLING EVENT REFLECT GROUNDWATER QUALITY CONDITIONS AFTER SHUTDOWN OF THE IN-SITU BIOREMEDIATION TREATMENT AND CLOSED LOOP HYDRAULIC SYSTEMS.
16. * = NEW YORK STATE DEPARTMENT OF HEALTH DRINKING WATER STANDARD (i.e., MAXIMUM CONTAMINANT LEVEL) FOR AN "UNSPECIFIED ORGANIC CONTAMINANT" (NYCRR TITLE 10, PART 5, SUBPART 5-1).

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PM PETROLEUM PIPELINE MARKER
- GM GAS LINE MARKER
- SV SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- TW-02RRR GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- TW-02R REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

SAMPLE IDENTIFICATION

MW-##

Date	Sep-06	Nov-06	Jun-07
Acetone	NA	130 J	33
Benzene	NA	3.6	4.6
Ethylbenzene	NA	<4.0	0.80 J
Methylene Chloride	NA	<3.0	<3.0
Toluene	NA	1.2 J	1.4 J
Trichloroethene	NA	<1.0	<1.0
Xylenes (total)	NA	1.1 J	5
Aniline	3.5	420	1300
N,N-Dimethylaniline	1.2	1.7 J	<10
Methanol	NA	<500	<500

DETECTIONS EXCEEDING NYSDEC GQS ARE INDICATED BY SHADING.

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

CONCENTRATION (ppb)

0 100' 200'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
MONITORING MEMO

GROUNDWATER MONITORING DATA SUMMARY FOR APRIL 2011 - JULY 2016 AREAS 1 & 2

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

MW-27

Date	4/7/2011	10/26/2011	4/12/2012	10/4/2012	4/5/2013	7/24/2013	10/23/13	1/23/2014	4/16/2014	10/23/2014	4/1/2015	7/7/2016
Acetone	3.9 J	<10	<2.7 J	<10	<10	<10	<10 J	<10	<10	<10	<10	7.5 J
Benzene	3.1	2.1	1.5	1.1	1.1	2.0	2.6	0.89 J	1.0	2.0	2.4	1.2
Ethylbenzene	5.1	2.2	1.4	<1.0	0.88 J	<1.0	<1.0	<1.0	<1.0	0.12 J	0.98 J	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5.7	1.3	0.45 J	0.22 J	0.34 J	0.60 J	0.75 J	0.33 J	0.41 J	1.2	1.9	0.43 J
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	9.1	3.1	2.2 J	<3.0	1.4 J	<3.0	3.9	0.22 J	0.92 J	3.5	9.5	2.4
Aniline	1000	36	<1.9	<5.0	11	1.5	<5.0	<12	0.60 J	16	20	2.4 J
N,N-Dimethylaniline	<11	2.7	2.7	2.2	2.4	1.1	0.73 J	0.75 J	0.48 J	1.4	1.0 J	1.2
Methanol	NA	NA	NA	NA	NA	<1000	NA	NA	NA	NA	NA	NA

PZ-4S

Date	4/7/2011	4/10/2012	4/2/2013	7/22/2013	1/20/2014	10/23/2014	4/1/2015	7/6/2016
Acetone	<10 J	<2.7	<10	<10	<10 J	<10	<10	<5.0
Benzene	<1.0	<0.080	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<1.8	<5.2	<1.0	<10	<11	<10 J	<10
N,N-Dimethylaniline	<1.1	<0.21	<1.0	<1.0	<1.0	<1.1	<1.0 J	<1.0
Methanol	NA	NA	NA	NA	NA	NA	NA	NA

PZ-4D

Date	4/7/2011	4/10/2012	4/2/2013	7/22/2013	10/22/13	1/20/2014	4/16/2014	10/22/2014	4/2/2015	7/6/2016
Acetone	<10	<2.7	<10	<10	<10	<10 J	<10	<10	<10	<5.0
Benzene	<1.0	<0.080	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.23 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<1.8	<4.8	<1.0	<5.2	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1	<0.21	<0.95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-17R

Date	4/6/2011	10/25/2011	4/10/2012	10/3/2012	4/3/2013	7/23/2013	10/22/13	1/22/2014	4/15/2014	10/23/2014	4/2/2015	7/6/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10	<10	<5.0
Benzene	<1.0	<1.0	0.22 J	0.55 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.19 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0 J	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3 J	<5.0	<1.8	<5.1	<5.1	<1.2	<5.4	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1 J	<1.0	<0.21	<1.0	<1.0	<1.2	<1.1	<1.0	<1.0	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	2700	<500	<500	<1000

MW-18

Date	4/7/2011	10/25/2011	4/10/2012	10/3/2012	4/3/2013	7/23/2013	10/22/13	1/20/2014	4/15/2014	10/22/2014	4/3/2015	7/7/2016
Acetone	<10 J	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10	<10	<5.0
Benzene	<1.0	<1.0	<0.080	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.23 J	0.27 J	<1.0	0.60 J	0.25 J	0.19 J	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0 J	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<5.0	<1.8	<5.2	<4.8	<1.0	<5.4	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1	<1.0	<0.21	<1.0	<0.95	<1.0	<1.1	<1.0	<1.0	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	<500	<500	<500	<1000

MW-30

Date	4/6/2011	10/25/2011	4/10/2012	10/4/2012	4/4/2013	7/24/2013	10/22/13	1/22/2014	4/15/2014	10/23/2014	4/2/2015	7/7/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10	<10	<5.0
Benzene	<1.0	<1.0	<0.080	0.099 J	<1.0	0.20 J	0.29 J	0.19 J	0.37 J	0.18 J	0.24 J	0.78 J
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.18 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0 J	<0.36	<3.0	<3.0	<3.0	<3.0	0.14 J	<3.0	0.15 J	<3.0	<2.0
Aniline	<5.3 J	<5.0	<1.8	<5.3	<5.2	<1.0	<5.2	<11	<10	<10	<11	<10
N,N-Dimethylaniline	<1.1 J	<1.0	<0.21	<1.1	<1.0	0.30 J	0.85 J	<1.1	0.43 J	1.5	2.0	<1.0
Methanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-23S

Date	4/7/2011	10/26/2011	4/10/2012	10/2/2012	4/3/2013	7/23/2013	10/21/13	1/20/2014	4/14/2014	10/22/2014	4/3/2015	7/7/2016
Acetone	<10 J	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10	<10	<5.0
Benzene	<1.0	<1.0	<0.080	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.31 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<5.0	<1.8	<5.1	<5.1	<1.0	<5.2	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1	<1.0	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	<500	<500 J	<500	<1000

MW-28

Date	4/7/2011	10/26/2011	4/11/2012	10/4/2012	4/5/2013	7/24/2013	10/23/13	1/23/2014	4/16/2014	10/23/2014	4/2/2015	7/7/2016
Acetone	4.3 J	<10	<2.7	<10	<10	<10	<10	<10 J	13	51	7.6 J	<5.0
Benzene	2.3	1.8	1.4	1.9	1.7	1.7	1.7	1.2	1.7	1.3	1.6	1.1
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0 B	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.41 J	<1.0	<1.0
Toluene	0.11 J	0.38 J	0.22 J	0.16 J	<1.0	0.22 J	0.49 J	0.22 J	0.29 J	1.1	0.39 J	0.41 J
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<0.36	<3.0	<3.0	0.68 J	<3.0	<3.0	0.90 J	0.75 J	0.50 J	
Aniline	3.9 J	<5.0	<1.8	<5.0	<5.2	<1.0	<5.0	<10	<10	1.2 J	1.2 J	0.94 J
N,N-Dimethylaniline	0.75 J	<1.0	0.48 J	0.62 J	0.32 J	0.35 J	0.70 J	0.75 J	0.72 J	1.3	1.3	<1.0
Methanol	<500	<500	<500	NA	410 J	<1000	<500	<500	<500	<500	<500	<1000

MW-23I

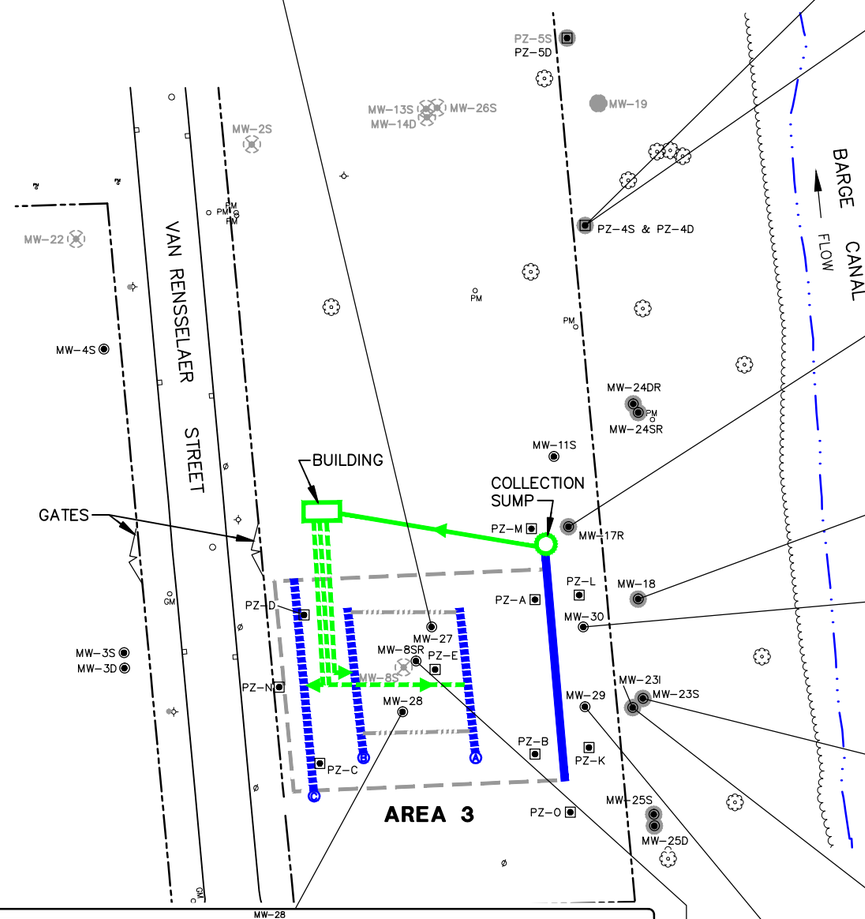
Date	4/7/2011	10/26/2011	4/10/2012	10/2/2012	4/3/2013	7/23/2013	10/21/13	1/20/2014	4/14/2014	10/22/2014	4/3/2015	7/7/2016
Acetone	<10 J	<10	<2.7	<10	<10	<10	<10	<10 J	<10	<10	<10	<5.0
Benzene	<1.0	<1.0	<0.080	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.29 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Aniline	<5.3	<5.0	<1.8	<5.6	<4.8	<1.0	<5.0	<10	<10	<10	<10	<10
N,N-Dimethylaniline	<1.1	<1.0	<0.21	<1.1	<0.95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	NA	<1000	<1000	<500	<500	<500	<500	<500	<1000

MW-8SR

Date	4/7/2011	10/26/2011	4/12/2012	10/4/2012	4/5/2013	7/25/2013	10/24/13	1/24/2014	4/16/2014	10/23/2014	4/2/2015	7/7/2016
Acetone	5.9 J [4.3 J]	<10 [<10]	8.7 J [6.7 J]	<10 [<10]	<10 [<10]	5.1 J [8.7 J]	<10	<10 J [<10 J]	<10 [<10]	18 J [38 J]	15 [8.4 J]	<5.0 [12 J]
Benzene	3.2 [3.2]	1.9 [2.0]	1.2 [1.7]	0.69 J [0.70 J]	1.1 [1.1]	1.9 [1.8]	2.9	2.4 [2.6]	3.2 [3.3]	1.7 [1.9]	3.5 [3.7]	1.7 [1.6]
Ethylbenzene	10 [8.8]	2.0 [2.1]	2.3 [3.3]	0.16 J [0.14 J]	0.32 J [0.28 J]	0.17 J [0.18 J]	0.21 J	0.19 J [<1.0]	0.25 J [0.27 J]	0.16 J [0.18 J]	<1.0 [0.36 J]	<1.0 [<1.0]
Methylene Chloride	<1.0 [<1.0]	<1.0 [<1.0]	<0.18 [<0.18]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]	0.27 J [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]
Toluene	2.8 [2.6]	1.3 [1.3]	0.76 J [1.2]	0.36 J [0.39 J]	0.67 J [0.68 J]	1.0 [0.96 J]	1.3	0.94 J [1.1]	1.2 [1.1]	1.2 [1.3]	1.3 [1.2]	0.73 J [0.71 J]
Trichloroethene	<1.0 [<1.0]	<1.0 [<1.0]	<0.090 [<0.090]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]
Xylenes (total)	32 [31]	14 [15]	9.5 [15]	1.4 J [1.2 J]	7.7 [8.0]	11 [9.4]	13	11 [13]	13 [13]	5.9 [6.4]	19 [18]	4.6 [4.2]
Aniline	57 J [64]	<5.0 [<5.0]	<1.9 [<1.9]	<5.3 [<5.0]	<5.1 [<5.1]	2.5 [2.5]	2.6 J	5.1 J [<10]	3.9 J [5.6 J]	3.1 J [2.3 J]	2.7 J [3.6 J]	2.0 J [1.4 J]
N,N-Dimethylaniline	1.5 [1.6]	2.6 [<1.0]	2.4 [2.6]	2.3 [2.7]	1.7 [1.4]	0.89 J [0.96 J]	0.83 J	2.0 [1.7]	1.4 [1.9]	1.8 [1.3]	2.6 [2.7]	1.1 [1.0 J]
Methanol	NA	NA	NA	NA	NA	<1000 [<1000]	NA	NA	NA	NA	NA	NA

MW-29

Date	4/6/2011	10/25/2011	4/11/2012	10/3/2012	4/5/2013	7/23/2013	10/22/13	1/22/2014	4/15/2014	10/23/2014	12/3/2014	4/2/2015	7/7/2016
Acetone	<10	<10	<2.7	<10	<10	<10	<10	<10 J	<10	790000 D	370 J	12	30 J
Benzene	<1.0	<1.0	<0.080	<1.0	<1.0	0.26 J	0.32 J	<1.0	<1.0	<500 D	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500 D	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500 D	<1.0	<1.0	<1.0
Toluene	<1.0	0.22 J	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500 D	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<0.090	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500 D	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0 J	<0.36	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<1500 D	<3.0	<3.0	<2.0
Aniline	<5.3 J	<5.0	<1.8	<5.1	<5.1	<1.0	<5.2	<11	<10	<10	NA	<12	<11
N,N-Dimethylaniline	<1.1 J	0.22 J	<0.21	<1.0	<1.0	<1.0	<1.0	<1.1	<1.0	<1.0	NA	0.66 J	<1.1
Methanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPELINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY
- LINE EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-8S REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS CONSTITUENT OF CONCERN (COC) CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE COC PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COCs WITH CURRENT OR PAST DETECTIONS ARE PRESENTED ON THIS FIGURE.
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. B = COMPOUND WAS FOUND IN ASSOCIATED METHOD BLANK.
10. D = CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS.
11. THE 6/22/10 SAMPLING EVENT WAS AN INTERIM SAMPLING EVENT ANALYZING FOR VOLATILE ORGANIC COMPOUNDS ONLY.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS = GQS NOT AVAILABLE.
14. RESULTS FOR DUPLICATE SAMPLES ARE SHOWN IN BRACKETS NEXT TO PARENT SAMPLE RESULTS.
15. ppb = PARTS PER BILLION.
16. RESULTS FOLLOWING THE APRIL 2013 SAMPLING EVENT REFLECT GROUNDWATER QUALITY CONDITIONS AFTER SHUTDOWN OF THE IN-SITU BIOREMEDIATION TREATMENT AND CLOSED LOOP HYDRAULIC SYSTEMS.
17. THE DETECTIONS OF ACETONE AT WELL MW-29 SINCE THE OCTOBER 2014 SAMPLING EVENT ARE ATTRIBUTED TO THE REPAIR OF THE PVC STICK-UP ON JUNE 26, 2014, AND ARE NOT SITE RELATED.
18. * = NEW YORK STATE DEPARTMENT OF HEALTH DRINKING WATER STANDARD (i.e., MAXIMUM CONTAMINANT LEVEL) FOR AN "UNSPECIFIED ORGANIC CONTAMINANT" (NYCRR TITLE 10, PART 5, SUBPART 5-1).

SAMPLE IDENTIFICATION

DETECTIONS EXCEEDING NYSDEC GQS ARE INDICATED BY SHADING.

	PZ-##						
Date	Jun-06	Jun-07	Mar-08	Mar-09	Apr-10	Jun-10	Apr-11
Acetone	<5.0	<5.0	<5.0	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<1.0	5.3 J	<1.0	<1.0
Toluene	0.50 J	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.5	<5.0	<5.0	<5.0	NA	<5.3
N,N-Dimethylaniline	<1.0	<1.1	<0.50	<0.50	<1.0	NA	<1.1
Methanol	<1000	<500	NA	NA	<500	NA	NA

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

CONCENTRATION (ppb)

0 100' 200'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
MONITORING MEMO

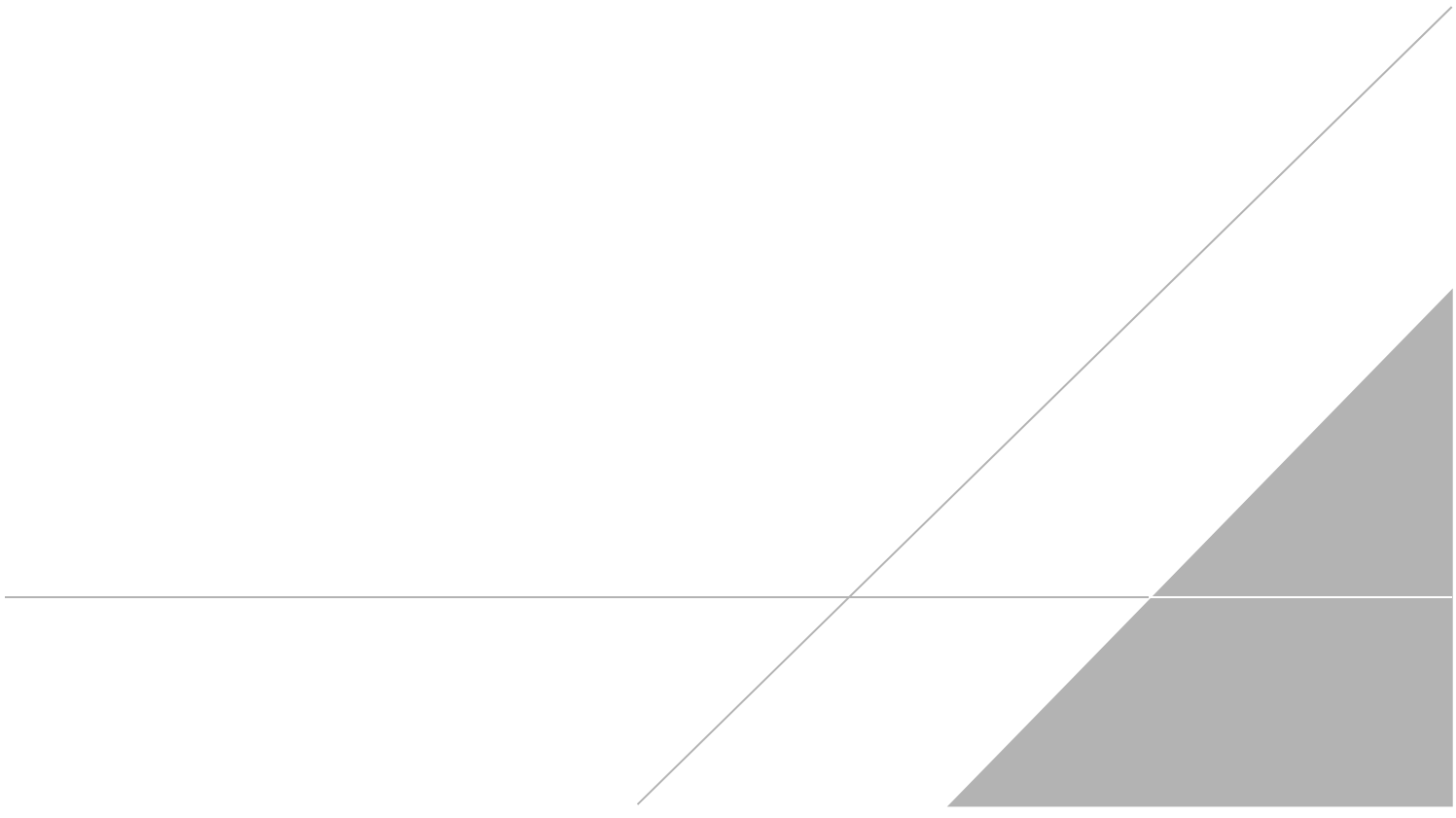
GROUNDWATER MONITORING DATA SUMMARY FOR APRIL 2011 - JULY 2016 AREA 3

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

ATTACHMENT A

Validated Analytical Laboratory Reports



ARCADIS Design & Consultancy for natural and built assets

McKesson Bear Street

Data Usability Summary Report (DUSR)

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG #: 460-116504-1

Analyses Performed By:
TestAmerica Laboratories
Edison, New Jersey

Report #: 25990R
Review Level: Tier III
Project: B0026003.2014.00010

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 460-116504-1 for samples collected in association with the McKesson Bear Street site in Syracuse, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	METH	MISC
DUP-20160705	460-116504-1	Water	7/5/2016	TW-02RRR	X	X		X	
MW-34	460-116504-2	Water	7/5/2016		X	X		X	
MW-35	460-116504-3	Water	7/5/2016		X	X		X	
TW-02RRR	460-116504-4	Water	7/5/2016		X	X		X	
MW-32	460-116504-5	Water	7/5/2016		X	X		X	
TW-01	460-116504-6	Water	7/5/2016		X	X		X	
TRIP BLANK	460-116504-7	Water	7/5/2016		X				

Notes:
1. METH - Methanol.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260C, 8270D and 8015D as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846 Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24 Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270C (SOP HW-22 Revision 3, October 2006).

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

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

- Concentration (C) Qualifiers

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

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

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

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

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

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

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

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

  R The sample results are rejected as unusable. The compound may or may not be present in the sample.

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 8260C	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from collection to analysis	Cool to <6°C

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment 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 sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

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

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

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

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

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations associated with this SDG	ICV %RSD	Trichloroethene	19.7%

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
	%RSD >90%	Non-detect	R
		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 the 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 analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

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

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

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

A MS/MSD was not performed on a sample location associated with this SDG.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RRR/ DUP-20160705	Benzene	0.68 J	0.70 J	AC
	Xylenes, total	0.43 J	0.49 J	AC

AC Acceptable
U Not detected

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

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR VOCs

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

%R Percent recovery
RPD Relative percent difference
%RSD Relative standard deviation
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 8270D	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6°C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment 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 not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

All compounds associated with the calibrations were within the specified control limits.

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, and that all SVOC surrogate recoveries be greater than ten percent.

Sample Locations	Surrogate	Recovery
TW-01	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	AC
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	<LL but > 10%
	Terphenyl-d14	AC

LL Lower control limit
AC Acceptable

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

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

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

analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within the control limits.

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

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established or analytical method-referenced 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. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

A MS/MSD was not performed on a sample location associated with this SDG.

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 recoveries within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RRR/ DUP-20160705	n,n'-Dimethylaniline	1.4	1.0 U	AC

AC Acceptable
U Not detected

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

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R					X
Matrix Spike Duplicate (MSD) %R					X
MS/MSD RPD					X
Field Duplicate RPD		X		X	
Surrogate Spike %R		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Transcription/calculations acceptable		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

METHANOL ANALYSIS

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
Methanol SW-846 8015D	Soil	14 days from collection to analysis	Cool to <6°C
	Water		

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment 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 analyte in an associated blank is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

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

3. System Performance

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

A maximum RSD of 20% or a correlation coefficient of greater than 0.99 is allowed.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

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. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

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

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked analytes used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the analyte concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

The MS/MSD analysis performed on sample location DUP-20160705 exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

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

8. Field Duplicate Analysis

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

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RRR/ DUP-20160705	Methanol	1.0 U	1.0 U	AC

AC Acceptable
U Not detected

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

9. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows.

All identified compounds met the specified criteria.

10. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR METHANOL

Methanol: SW-846 8015D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment Blanks					X
C. Trip Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X		X	
Field Duplicate RPD		X		X	
Surrogate Spike %R		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial Calibration %RSDs		X		X	
Continuing Calibration %Ds		X		X	
System Performance and Column Resolution		X		X	
Compound Identification and Quantitation					
A. Quantitation Reports		X		X	
B. RT of Sample Compounds Within Established RT Windows		X		X	
C. Pattern Identification					X
D. Transcription/calculations acceptable		X		X	
E. Reporting Limits adjusted for Sample Dilutions		X		X	

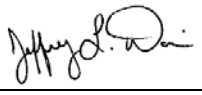
%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	METH	MISC	
460-116504-1	7/5/2016	SW846	DUP-20160705	Water	No	Yes	--	Yes	--	ICV %RSD
	7/5/2016		MW-34	Water	No	Yes	--	Yes	--	ICV %RSD
	7/5/2016		MW-35	Water	No	Yes	--	Yes	--	ICV %RSD
	7/5/2016		TW-02RRR	Water	No	Yes	--	Yes	--	ICV %RSD
	7/5/2016		MW-32	Water	No	Yes	--	Yes	--	ICV %RSD
	7/5/2016		TW-01	Water	No	Yes	--	Yes	--	ICV %RSD
	7/5/2016		TRIP BLANK	Water	No	Yes	--	Yes	--	ICV %RSD

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.

Validation Performed By: Jeffrey L. Davin

Signature: 

Date: July 29, 2016

Peer Review: Dennis Capria

Date: August 9, 2016

CHAIN OF CUSTODY/LABORAOTRY QUALIFIER DEFINITIONS/ CORRECTED SAMPLE ANALYSIS DATA SHEETS

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-116504 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

08/03/2016

Client Information	Sampler: N. SMITH / K. MOTT	Lab PM: Chang, Grace	COC No: 460-74078-45565.1
Client Contact: Ms. Dawn Penniman	Phone: 315-402-6828	E-Mail: grace.chang@testamericainc.com	Page: Page 1 of 5
Company: ARCADIS U.S. Inc			Job #: 116504
Address: 6723 Towpath Road	Due Date Requested: TBD		
City: Syracuse	TAT Requested (days): 10-day		
State, Zip: NY, 13214			
Phone: 315-671-9229(Tel)	PO #: B0026003.2014		
Email: dawn.penniman@arcadis.com	WO #:		
Project Name: McKesson Former Bear Street Facility	Project #: 46003506		
Site: Syracuse N.Y.	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - Target Compound List for BNAs-OLM04.2	8260C - Target Compound List for VOCs	8015D_DAI - (MOD) Local Method	Total Number of containers	Special Instructions/Note:
		Preservation Code:					N	A	N		
DUP-20160705	7/5/16	—	G	Water		N	2	3	3		-1
MW-34		1630	G	Water		N	2	3	3		-2
MW-35		1420	G	Water		N	2	3	3		-3
TW-02 RRC		1230	G	Water		N	2	3	3		-4
MW-32		1500	G	Water		N	2	3	3		-5
TW-01		1245	G	Water		N	2	3	3		-6
TRIP BLANK		—	—	Water		N	—	3	—		-7
		RE		Water							
				Water							
				Water							
		7-5-16		Water							

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: KATIE MOTT KMOTT	Date/Time: 7/6/16 1715	Company: ARCADIS	Received by: [signature] FedEx	Date/Time: 7/5/16 1715	Company: SVR
Relinquished by: R. English	Date/Time: 7-5-16, 19:00	Company: Syr	Received by: Alex Arienzo FedEx	Date/Time: 7-6-16 9:15 am	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #7 1.1°C

483325 - Syracuse SC

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DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc Job Number: 460-116504-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **DUP-20160705**

Lab Sample ID: 460-116504-1
Client Matrix: Water

Date Sampled: 07/05/2016 0000
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379416	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43350.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2016 1535			Final Weight/Volume:	5 mL
Prep Date:	07/16/2016 1535				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U	1.1	5.0
Benzene	0.70	J	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	0.49	J	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 137
4-Bromofluorobenzene	106		70 - 131
Dibromofluoromethane (Surr)	103		72 - 136
Toluene-d8 (Surr)	95		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: MW-34

Lab Sample ID: 460-116504-2
Client Matrix: Water

Date Sampled: 07/05/2016 1630
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379416	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43351.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2016 1601			Final Weight/Volume:	5 mL
Prep Date:	07/16/2016 1601				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	22		1.1	5.0
Benzene	1.6		0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	0.75	J	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	3.5		0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 137
4-Bromofluorobenzene	109		70 - 131
Dibromofluoromethane (Surr)	104		72 - 136
Toluene-d8 (Surr)	96		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-116504-3
Client Matrix: Water

Date Sampled: 07/05/2016 1420
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379663	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43423.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 2257			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 2257				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84		70 - 137
4-Bromofluorobenzene	99		70 - 131
Dibromofluoromethane (Surr)	83		72 - 136
Toluene-d8 (Surr)	89		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **TW-02RRR**

Lab Sample ID: 460-116504-4
Client Matrix: Water

Date Sampled: 07/05/2016 1230
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379416	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43353.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2016 1653			Final Weight/Volume:	5 mL
Prep Date:	07/16/2016 1653				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U	1.1	5.0
Benzene	0.68	J	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	0.43	J	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 137
4-Bromofluorobenzene	106		70 - 131
Dibromofluoromethane (Surr)	102		72 - 136
Toluene-d8 (Surr)	94		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: MW-32

Lab Sample ID: 460-116504-5
Client Matrix: Water

Date Sampled: 07/05/2016 1500
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379663	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43424.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 2323			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 2323				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86		70 - 137
4-Bromofluorobenzene	105		70 - 131
Dibromofluoromethane (Surr)	90		72 - 136
Toluene-d8 (Surr)	94		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **TW-01**

Lab Sample ID: 460-116504-6
Client Matrix: Water

Date Sampled: 07/05/2016 1245
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379416	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43355.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2016 1744			Final Weight/Volume:	5 mL
Prep Date:	07/16/2016 1744				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 137
4-Bromofluorobenzene	108		70 - 131
Dibromofluoromethane (Surr)	106		72 - 136
Toluene-d8 (Surr)	95		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 460-116504-7TB
Client Matrix: Water

Date Sampled: 07/05/2016 0000
Date Received: 07/06/2016 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379416	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J43338.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2016 1025			Final Weight/Volume:	5 mL
Prep Date:	07/16/2016 1025				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U J	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	106		70 - 131
Dibromofluoromethane (Surr)	100		72 - 136
Toluene-d8 (Surr)	94		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **DUP-20160705**

Lab Sample ID: 460-116504-1
Client Matrix: Water

Date Sampled: 07/05/2016 0000
Date Received: 07/06/2016 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-377951	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-377842	Lab File ID:	M229837.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/08/2016 0959			Final Weight/Volume:	2 mL
Prep Date:	07/07/2016 1451			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	87		43 - 126
2-Fluorobiphenyl	65		63 - 113
2-Fluorophenol (Surr)	42		13 - 77
Nitrobenzene-d5 (Surr)	71		62 - 120
Phenol-d5 (Surr)	25		10 - 53
Terphenyl-d14 (Surr)	78		57 - 125

Client: ARCADIS U.S. Inc Job Number: 460-116504-1

Client Sample ID: MW-34

Lab Sample ID: 460-116504-2 Date Sampled: 07/05/2016 1630
Client Matrix: Water Date Received: 07/06/2016 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-377951	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-377842	Lab File ID:	M229843.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	07/08/2016 1204			Final Weight/Volume:	2 mL
Prep Date:	07/07/2016 1451			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	0.95	J	0.68	10
n,n'-Dimethylaniline	2.0		0.79	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	74		43 - 126
2-Fluorobiphenyl	72		63 - 113
2-Fluorophenol (Surr)	43		13 - 77
Nitrobenzene-d5 (Surr)	71		62 - 120
Phenol-d5 (Surr)	28		10 - 53
Terphenyl-d14 (Surr)	85		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-116504-3
Client Matrix: Water

Date Sampled: 07/05/2016 1420
Date Received: 07/06/2016 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379124	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378394	Lab File ID:	M230072.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 2317			Final Weight/Volume:	2 mL
Prep Date:	07/11/2016 1240			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	74		43 - 126
2-Fluorobiphenyl	68		63 - 113
2-Fluorophenol (Surr)	33		13 - 77
Nitrobenzene-d5 (Surr)	69		62 - 120
Phenol-d5 (Surr)	21		10 - 53
Terphenyl-d14 (Surr)	77		57 - 125

Client: ARCADIS U.S. Inc Job Number: 460-116504-1

Client Sample ID: **TW-02RRR**

Lab Sample ID: 460-116504-4 Date Sampled: 07/05/2016 1230
Client Matrix: Water Date Received: 07/06/2016 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-377951	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-377842	Lab File ID:	M229845.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/08/2016 1246			Final Weight/Volume:	2 mL
Prep Date:	07/07/2016 1451			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.4		0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	84		43 - 126
2-Fluorobiphenyl	69		63 - 113
2-Fluorophenol (Surr)	42		13 - 77
Nitrobenzene-d5 (Surr)	72		62 - 120
Phenol-d5 (Surr)	28		10 - 53
Terphenyl-d14 (Surr)	81		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: MW-32

Lab Sample ID: 460-116504-5
Client Matrix: Water

Date Sampled: 07/05/2016 1500
Date Received: 07/06/2016 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379124	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378394	Lab File ID:	M230073.D
Dilution:	1.0			Initial Weight/Volume:	245 mL
Analysis Date:	07/14/2016 2338			Final Weight/Volume:	2 mL
Prep Date:	07/11/2016 1240			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.66	10
n,n'-Dimethylaniline	1.0	U	0.78	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	87		43 - 126
2-Fluorobiphenyl	78		63 - 113
2-Fluorophenol (Surr)	38		13 - 77
Nitrobenzene-d5 (Surr)	79		62 - 120
Phenol-d5 (Surr)	24		10 - 53
Terphenyl-d14 (Surr)	89		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **TW-01**

Lab Sample ID: 460-116504-6
Client Matrix: Water

Date Sampled: 07/05/2016 1245
Date Received: 07/06/2016 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-377951	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-377842	Lab File ID:	M229847.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/08/2016 1328			Final Weight/Volume:	2 mL
Prep Date:	07/07/2016 1451			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	73		43 - 126
2-Fluorobiphenyl	56	X	63 - 113
2-Fluorophenol (Surr)	37		13 - 77
Nitrobenzene-d5 (Surr)	63		62 - 120
Phenol-d5 (Surr)	23		10 - 53
Terphenyl-d14 (Surr)	78		57 - 125

Client: ARCADIS U.S. Inc Job Number: 460-116504-1

Client Sample ID: **DUP-20160705**

Lab Sample ID: 460-116504-1 Date Sampled: 07/05/2016 0000
Client Matrix: Water Date Received: 07/06/2016 0915

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310218	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/08/2016 0942			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	105		62 - 129

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-116504-2
Client Matrix: Water

Date Sampled: 07/05/2016 1630
Date Received: 07/06/2016 0915

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310218	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/08/2016 1005			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	107		62 - 129

Client: ARCADIS U.S. Inc Job Number: 460-116504-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-116504-3 Date Sampled: 07/05/2016 1420
Client Matrix: Water Date Received: 07/06/2016 0915

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310218	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/08/2016 1013			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	92		62 - 129

Client: ARCADIS U.S. Inc Job Number: 460-116504-1

Client Sample ID: **TW-02RRR**

Lab Sample ID: 460-116504-4 Date Sampled: 07/05/2016 1230
Client Matrix: Water Date Received: 07/06/2016 0915

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310218	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/08/2016 1021			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	104		62 - 129

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **MW-32**

Lab Sample ID: 460-116504-5
Client Matrix: Water

Date Sampled: 07/05/2016 1500
Date Received: 07/06/2016 0915

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310218	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/08/2016 1029			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	102		62 - 129

Client: ARCADIS U.S. Inc

Job Number: 460-116504-1

Client Sample ID: **TW-01**

Lab Sample ID: 460-116504-6
Client Matrix: Water

Date Sampled: 07/05/2016 1245
Date Received: 07/06/2016 0915

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310218	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/08/2016 1037			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	87		62 - 129

ARCADIS Design & Consultancy for natural and built assets

McKesson Bear Street

Data Usability Summary Report (DUSR)

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG #: 460-116580-1

Analyses Performed By:
TestAmerica Laboratories
Edison, New Jersey

Report #: 25991R
Review Level: Tier III
Project: B0026003.2014.00010

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 460-116580-1 for samples collected in association with the McKesson Bear Street site in Syracuse, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	METH	MISC
MW-4S	460-116580-1	Water	7/6/2016		X	X			
MW-36R	460-116580-2	Water	7/6/2016		X	X			
MW-33	460-116580-3	Water	7/6/2016		X	X			
MW-9S	460-116580-4	Water	7/6/2016		X	X		X	
MW-31	460-116580-5	Water	7/6/2016		X	X		X	
PZ-4D	460-116580-6	Water	7/6/2016		X	X			
PZ-4S	460-116580-7	Water	7/6/2016		X	X			
MW-17R	460-116580-8	Water	7/6/2016		X	X		X	
TRIP BLANK	460-116580-9	Water	7/6/2016		X				

Notes:
1. METH - Methanol.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260C, 8270D and 8015D as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846 Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24 Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270C (SOP HW-22 Revision 3, October 2006).

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

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

- Concentration (C) Qualifiers

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

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

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

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

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

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

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

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

  R The sample results are rejected as unusable. The compound may or may not be present in the sample.

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 8260C	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from collection to analysis	Cool to <6°C

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment 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 sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

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

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

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

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

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations associated with this SDG	ICV %RSD	Acetone	17.8%

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
	%RSD >90%	Non-detect	R
		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 the 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 analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

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

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

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

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

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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

A field duplicate was not included in this SDG.

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR VOCs

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

%R Percent recovery
RPD Relative percent difference

%RSD Relative standard deviation
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 8270D	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6°C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment 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 not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

All compounds associated with the calibrations were within the specified control limits.

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, and that all SVOC surrogate recoveries be greater than ten percent.

Sample Locations	Surrogate	Recovery
All samples associated with this SDG	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	AC
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	<LL but > 10%
	Terphenyl-d14	AC

LL Lower control limit
AC Acceptable

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

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

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

analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

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

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established or analytical method-referenced 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. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

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

8. Laboratory Control Sample (LCS) Analysis

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

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

9. Field Duplicate Analysis

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

A field duplicate was not included in this SDG.

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X		X	
Field Duplicate RPD		X		X	
Surrogate Spike %R		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Transcription/calculations acceptable		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

METHANOL ANALYSIS

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
Methanol SW-846 8015D	Soil	14 days from collection to analysis	Cool to <6°C
	Water		

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment 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 analyte in an associated blank is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

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

3. System Performance

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

A maximum RSD of 20% or a correlation coefficient of greater than 0.99 is allowed.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

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. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

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

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked analytes used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the analyte concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

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

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

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

8. Field Duplicate Analysis

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

A field duplicate was not included in this SDG.

9. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows.

All identified compounds met the specified criteria.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in

this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METHANOL

Methanol: SW-846 8015D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment Blanks					X
C. Trip Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X		X	
Field Duplicate RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial Calibration %RSDs		X		X	
Continuing Calibration %Ds		X		X	
System Performance and Column Resolution		X		X	
Compound Identification and Quantitation					
A. Quantitation Reports		X		X	
B. RT of Sample Compounds Within Established RT Windows		X		X	
C. Pattern Identification					X
D. Transcription/calculations acceptable		X		X	
E. Reporting Limits adjusted for Sample Dilutions		X		X	

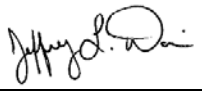
%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	METH	MISC	
460-116580-1	7/6/2016	SW846	MW-4S	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		MW-36R	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		MW-33	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		MW-9S	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		MW-31	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		PZ-4D	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		PZ-4S	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		MW-17R	Water	No	Yes	--	Yes	--	ICV %RSD
	7/6/2016		TRIP BLANK	Water	No	Yes	--	Yes	--	ICV %RSD

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.

Validation Performed By: Jeffrey L. Davin

Signature: 

Date: August 5, 2016

Peer Review: Dennis Capria

Date: August 9, 2016

CHAIN OF CUSTODY/LABORAOTRY QUALIFIER DEFINITIONS/ CORRECTED SAMPLE ANALYSIS DATA SHEETS

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-116580 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: N. SMITH / K. Mott	Lab PM: Chang, Grace	COC No: 460-74078-45565.2
Client Contact: Ms. Dawn Penniman	Phone: 315-402-6899	E-Mail: grace.chang@testamericainc.com	Page: Page 2 of 5
Company: ARCADIS U.S. Inc		Analysis Requested	Job #: 116580
Address: 6723 Towpath Road	Due Date Requested: TBD		Preservation Codes:
City: Syracuse	TAT Requested (days): 10 days		
State, Zip: NY, 13214			
Phone: 315-671-9229(Tel)	PO #: B0026003.2014		
Email: dawn.penniman@arcadis.com	WO #:		
Project Name: McKesson Former Bear Street Facility	Project #: 46003506		
Site: Syracuse N.Y.	SSOW#:		Other:

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA
M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - Target Compound List for BNAs-OLM04.2	8260C - Target Compound List for VOCs	8015D_DAI - (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A	N		
MW-4S	7/6/16	1600	G	Water		N	2	3	–		1
MW-36R		1340	G	Water		N	2	3	–		2
MW-33		1230	G	Water		N	2	3	–		3
MW-9S		1130	G	Water		N	2	3	3		4
MW-31		1000	G	Water		N	2	3	3		5
PZ-4D		1210	G	Water		N	2	3	–		6
PZ-4S		1430	G	Water		N	2	3	–		7
MW-17R		1030	G	Water		Y	6	9	9		MS/MSD 8
TRIP BLANK		–	–	Water		N	–	3	–		9
				Water							
				Water							

SHORT HOLD

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 m...
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ M...

Deliverable Requested: I, II, III, (IV), Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Nathan P. Smith	7-6-16, 17:05	ARCADIS	R. English	7-6-16, 17:05	Syr
R. English	7-6-16, 19:00	Syr	Alix Aciemo Fedex	7-7-16 9:47am	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #7 4.1°C 2.2°C

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc Job Number: 460-116580-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: MW-4S

Lab Sample ID: 460-116580-1
Client Matrix: Water

Date Sampled: 07/06/2016 1600
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12556.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1008			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1008				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	95		70 - 131
Dibromofluoromethane (Surr)	102		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-36R**

Lab Sample ID: 460-116580-2
Client Matrix: Water

Date Sampled: 07/06/2016 1340
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12557.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1035			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1035				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	17	J	1.1	5.0
Benzene	0.48	J	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	0.41	J	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	0.46	J	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	97		70 - 131
Dibromofluoromethane (Surr)	103		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-33**

Lab Sample ID: 460-116580-3
Client Matrix: Water

Date Sampled: 07/06/2016 1230
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12558.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1103			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1103				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 137
4-Bromofluorobenzene	98		70 - 131
Dibromofluoromethane (Surr)	104		72 - 136
Toluene-d8 (Surr)	99		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-9S**

Lab Sample ID: 460-116580-4
Client Matrix: Water

Date Sampled: 07/06/2016 1130
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12559.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1131			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1131				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.3		0.090	1.0
Ethylbenzene	13		0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.9		0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	50		0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	96		70 - 131
Dibromofluoromethane (Surr)	102		72 - 136
Toluene-d8 (Surr)	100		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-31**

Lab Sample ID: 460-116580-5
Client Matrix: Water

Date Sampled: 07/06/2016 1000
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12560.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1159			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1159				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	13	J	1.1	5.0
Benzene	9.6		0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.1		0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	4.8		0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 137
4-Bromofluorobenzene	98		70 - 131
Dibromofluoromethane (Surr)	104		72 - 136
Toluene-d8 (Surr)	100		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: PZ-4D

Lab Sample ID: 460-116580-6
Client Matrix: Water

Date Sampled: 07/06/2016 1210
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12561.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1226			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1226				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 137
4-Bromofluorobenzene	102		70 - 131
Dibromofluoromethane (Surr)	106		72 - 136
Toluene-d8 (Surr)	104		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: PZ-4S

Lab Sample ID: 460-116580-7
Client Matrix: Water

Date Sampled: 07/06/2016 1430
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12562.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 1254			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 1254				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 137
4-Bromofluorobenzene	99		70 - 131
Dibromofluoromethane (Surr)	103		72 - 136
Toluene-d8 (Surr)	101		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-17R**

Lab Sample ID: 460-116580-8
Client Matrix: Water

Date Sampled: 07/06/2016 1030
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12555.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 0940			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 0940				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 137
4-Bromofluorobenzene	98		70 - 131
Dibromofluoromethane (Surr)	105		72 - 136
Toluene-d8 (Surr)	99		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 460-116580-9TB
Client Matrix: Water

Date Sampled: 07/06/2016 0000
Date Received: 07/07/2016 0947

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379474	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12554.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/17/2016 0912			Final Weight/Volume:	5 mL
Prep Date:	07/17/2016 0912				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	97		70 - 131
Dibromofluoromethane (Surr)	104		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-4S**

Lab Sample ID: 460-116580-1
Client Matrix: Water

Date Sampled: 07/06/2016 1600
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26769.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 0650			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U *	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	76		43 - 126
2-Fluorobiphenyl	54	X	63 - 113
2-Fluorophenol (Surr)	35		13 - 77
Nitrobenzene-d5 (Surr)	71		62 - 120
Phenol-d5 (Surr)	27		10 - 53
Terphenyl-d14 (Surr)	100		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-36R**

Lab Sample ID: 460-116580-2
Client Matrix: Water

Date Sampled: 07/06/2016 1340
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26770.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 0715			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	7.9	J	0.65	10
n,n'-Dimethylaniline	3.4	*	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	60		43 - 126
2-Fluorobiphenyl	59	X	63 - 113
2-Fluorophenol (Surr)	32		13 - 77
Nitrobenzene-d5 (Surr)	75		62 - 120
Phenol-d5 (Surr)	24		10 - 53
Terphenyl-d14 (Surr)	96		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-33**

Lab Sample ID: 460-116580-3
Client Matrix: Water

Date Sampled: 07/06/2016 1230
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26771.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 0741			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.1	*	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	75		43 - 126
2-Fluorobiphenyl	54	X	63 - 113
2-Fluorophenol (Surr)	34		13 - 77
Nitrobenzene-d5 (Surr)	70		62 - 120
Phenol-d5 (Surr)	24		10 - 53
Terphenyl-d14 (Surr)	93		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-9S**

Lab Sample ID: 460-116580-4
Client Matrix: Water

Date Sampled: 07/06/2016 1130
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26772.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 0806			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	0.66	J	0.65	10
n,n'-Dimethylaniline	2.7		0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	74		43 - 126
2-Fluorobiphenyl	57	X	63 - 113
2-Fluorophenol (Surr)	34		13 - 77
Nitrobenzene-d5 (Surr)	70		62 - 120
Phenol-d5 (Surr)	25		10 - 53
Terphenyl-d14 (Surr)	103		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-31**

Lab Sample ID: 460-116580-5
Client Matrix: Water

Date Sampled: 07/06/2016 1000
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26773.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 0831			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.3	*	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	70		43 - 126
2-Fluorobiphenyl	60	X	63 - 113
2-Fluorophenol (Surr)	33		13 - 77
Nitrobenzene-d5 (Surr)	70		62 - 120
Phenol-d5 (Surr)	23		10 - 53
Terphenyl-d14 (Surr)	95		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **PZ-4D**

Lab Sample ID: 460-116580-6
Client Matrix: Water

Date Sampled: 07/06/2016 1210
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26792.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/14/2016 1634			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U *	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	70		43 - 126
2-Fluorobiphenyl	61	X	63 - 113
2-Fluorophenol (Surr)	34		13 - 77
Nitrobenzene-d5 (Surr)	74		62 - 120
Phenol-d5 (Surr)	22		10 - 53
Terphenyl-d14 (Surr)	101		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: PZ-4S

Lab Sample ID: 460-116580-7
Client Matrix: Water

Date Sampled: 07/06/2016 1430
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378945	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26793.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	07/14/2016 1659			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.68	10
n,n'-Dimethylaniline	1.0	U *	0.79	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	69		43 - 126
2-Fluorobiphenyl	56	X	63 - 113
2-Fluorophenol (Surr)	33		13 - 77
Nitrobenzene-d5 (Surr)	69		62 - 120
Phenol-d5 (Surr)	21		10 - 53
Terphenyl-d14 (Surr)	99		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-17R**

Lab Sample ID: 460-116580-8
Client Matrix: Water

Date Sampled: 07/06/2016 1030
Date Received: 07/07/2016 0947

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378307	Instrument ID:	CBNAMS13
Prep Method:	3510C	Prep Batch:	460-378047	Lab File ID:	C26658.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/11/2016 1454			Final Weight/Volume:	2 mL
Prep Date:	07/08/2016 1422			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U *	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	68		43 - 126
2-Fluorobiphenyl	61	X	63 - 113
2-Fluorophenol (Surr)	37		13 - 77
Nitrobenzene-d5 (Surr)	70		62 - 120
Phenol-d5 (Surr)	23		10 - 53
Terphenyl-d14 (Surr)	90		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-9S**

Lab Sample ID: 460-116580-4
Client Matrix: Water

Date Sampled: 07/06/2016 1130
Date Received: 07/07/2016 0947

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310426	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/11/2016 0823			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	100		62 - 129

Client: ARCADIS U.S. Inc Job Number: 460-116580-1

Client Sample ID: MW-31

Lab Sample ID: 460-116580-5 Date Sampled: 07/06/2016 1000
Client Matrix: Water Date Received: 07/07/2016 0947

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310426	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/11/2016 0831			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	106		62 - 129

Client: ARCADIS U.S. Inc

Job Number: 460-116580-1

Client Sample ID: **MW-17R**

Lab Sample ID: 460-116580-8
Client Matrix: Water

Date Sampled: 07/06/2016 1030
Date Received: 07/07/2016 0947

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-310426	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/11/2016 0838			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	101		62 - 129

McKesson Bear Street

Data Usability Summary Report (DUSR)

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG #: 460-116737-1

Analyses Performed By:
TestAmerica Laboratories
Edison, New Jersey

Report #: 25992R
Review Level: Tier III
Project: B0026003.FY17.00010

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 460-116737-1 for samples collected in association with the McKesson Bear Street site in Syracuse, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	METH	MISC
Dup-20160707	460-116737-1	Water	7/7/2016	MW-8SR	X	X			
MW-18	460-116737-2	Water	7/7/2016		X	X		X	
MW-29	460-116737-3	Water	7/7/2016		X	X			
MW-30	460-116737-4	Water	7/7/2016		X	X			
MW-3S	460-116737-5	Water	7/7/2016		X	X			
MW-23S	460-116737-6	Water	7/7/2016		X	X		X	
MW-23I	460-116737-7	Water	7/7/2016		X	X		X	
MW-27	460-116737-8	Water	7/7/2016		X	X			
MW-8SR	460-116737-9	Water	7/7/2016		X	X			
MW-28	460-116737-10	Water	7/7/2016		X	X		X	
TRIP BLANK	460-116737-11	Water	7/7/2016		X				

Notes:
1. METH - Methanol.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260C, 8270D and 8015D as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846 Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24 Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270C (SOP HW-22 Revision 3, October 2006).

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

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

- Concentration (C) Qualifiers

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

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

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

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

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

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

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

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

  R The sample results are rejected as unusable. The compound may or may not be present in the sample.

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 8260C	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from collection to analysis	Cool to <6°C

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment 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 sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

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

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

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

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

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations associated with this SDG	ICV %RSD	Acetone	17.8%

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
	%RSD >90%	Non-detect	R
		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 the 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 analysis 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.

Sample locations associated with internal standards exhibiting responses outside of the control limits are presented in the following table.

Sample Locations	Internal Standard	Response
MW-18	tert-Butyl Alcohol-d9	>UL
	Fluorobenzene	AC
	1,4-Dioxane-d8	
	Chlorobenzene-d5	
	1,4-Dichlorobenzene-d4	

AC Acceptable

The criteria used to evaluate the internal standard responses are presented in the following table. In the case of an internal standard deviation, the compounds quantitated under the deviant internal standard are qualified as documented in the table below.

Control limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No action
	Detect	J
< the lower control limit (LL) but > 25%	Non-detect	UJ
	Detect	J
< 25%	Non-detect	R
	Detect	J

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 spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

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

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/ Dup-20160707	Acetone	5.0 U	12	NC
	Benzene	1.7	1.6	6.1%
	Toluene	0.73 J	0.71 J	AC
	Xylenes, total	4.6	4.2	9.1%

AC Acceptable
U Not detected

The compound acetone associated with sample locations MW-8SR and Dup-20160707 exhibited a field duplicate RPD greater than the control limit. The associated sample results for the listed analyte were qualified as estimated.

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR VOCs

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

%R Percent recovery
RPD Relative percent difference
%RSD Relative standard deviation
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 8270D	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6°C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment 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 not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

All compounds associated with the calibrations were within the specified control limits.

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, and that all SVOC surrogate recoveries be greater than ten percent.

Sample Locations	Surrogate	Recovery
MW-18	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	AC
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	<LL but > 10%
	Terphenyl-d14	AC

LL Lower control limit
AC Acceptable

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

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

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

analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

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

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established or analytical method-referenced 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. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

A MS/MSD was not performed on a sample location associated with this SDG.

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 recoveries within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/ Dup-20160707	n,n'-Dimethylaniline	1.1 J	1.0 J	AC
	Aniline	2.0 J	1.4 J	AC

AC Acceptable
U Not detected

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

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X		X	
Field Duplicate RPD		X		X	
Surrogate Spike %R		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Transcription/calculations acceptable		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

METHANOL ANALYSIS

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
Methanol SW-846 8015D	Soil	14 days from collection to analysis	Cool to <6°C
	Water		

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment 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 analyte in an associated blank is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

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

3. System Performance

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

A maximum RSD of 20% or a correlation coefficient of greater than 0.99 is allowed.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

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. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

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

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked analytes used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the analyte concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

A MS/MSD analysis was not performed on a sample location within this SDG.

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

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

8. Field Duplicate Analysis

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

A field duplicate was not included for this parameter.

9. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows.

All identified compounds met the specified criteria.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in

this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METHANOL

Methanol: SW-846 8015D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment Blanks					X
C. Trip Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R					X
Matrix Spike Duplicate (MSD) %R					X
MS/MSD RPD					X
Field Duplicate RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial Calibration %RSDs		X		X	
Continuing Calibration %Ds		X		X	
System Performance and Column Resolution		X		X	
Compound Identification and Quantitation					
A. Quantitation Reports		X		X	
B. RT of Sample Compounds Within Established RT Windows		X		X	
C. Pattern Identification					X
D. Transcription/calculations acceptable		X		X	
E. Reporting Limits adjusted for Sample Dilutions		X		X	

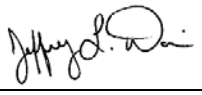
%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	METH	MISC	
460-116737-1	7/7/2016	SW846	Dup-20160707	Water	No	Yes	--	Yes	--	ICV %RSD, Field Dup RPD
	7/7/2016		MW-18	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-29	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-30	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-3S	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-23S	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-23I	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-27	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		MW-8SR	Water	No	Yes	--	Yes	--	ICV %RSD, Field Dup RPD
	7/7/2016		MW-28	Water	No	Yes	--	Yes	--	ICV %RSD
	7/7/2016		TRIP BLANK	Water	No	Yes	--	Yes	--	ICV %RSD

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.

Validation Performed By: Jeffrey L. Davin

Signature: 

Date: August 5, 2016

Peer Review: Dennis Capria

Date: August 9, 2016

CHAIN OF CUSTODY/LABORAOTRY QUALIFIER DEFINITIONS/ CORRECTED SAMPLE ANALYSIS DATA SHEETS

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: N. SMITH	Lab PM: Chang, Grace	Carrier Tracking No(s):	COC No: 460-74078-45565.3
Client Contact: Ms. Dawn Penniman	Phone: 315-402-8849	E-Mail: grace.chang@testamericainc.com		Page: Page 3 of 5
Company: ARCADIS U.S. Inc		Analysis Requested		Job #: 116737
Address: 6723 Towpath Road	Due Date Requested: TBD			Preservation Codes: A - HCL, M - Hexane
City: Syracuse	TAT Requested (days): 10 - day			
State, Zip: NY, 13214				
Phone: 315-671-9229(Tel)	PO #: B0026003.2014			460-116737 Chain of Custody; cahydrate
Email: dawn.penniman@arcadis.com	WO #:			
Project Name: McKesson Former Bear Street Facility	Project #: 46003506			L - EDA, Z - other (specify)
Site: Syracuse NY	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - Target Compound List for BNAs-OLM04.2	8260C - Target Compound List for VOCs	8015D_DAI - (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A	N		
Dup- 20160707	7/7/16	—	G	Water		N	2	3	—		-1
MW-18		1120	G	Water		N	2	3	3		-2
MW-29		1040	G	Water		N	2	3	—		-3
MW-30		1000	G	Water		N	2	3	—		-4
~~MW-35~~ MS/MSD MW-3S		1530	G	Water		X	6	9	—		MS/MSD -5
MW-23S		1330	G	Water		N	2	3	3		-6
MW-23I		1245	G	Water		N	2	3	3		-7
MW-27		1220	G	Water		N	2	3	—		-8
MW-8SR		1355	G	Water		N	2	3	—		-9
MW-28		1535	G	Water		N	2	3	3		-10
TRIP BLANK	↓	—	—	Water		N	—	3	—		-11

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Nathan Smith	7-7-16, 17:10	ARCADIS	R. English	7-7-16, 17:10	Sga
Relinquished by: R. English	Date/Time: 7-7-16, 19:00	Company Sga	Received by: Alex Acierno Fedex	Date/Time: 7-8-16 9:00	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #7 4.3° 3.5°

08/04/2016

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DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc Job Number: 460-116737-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **Dup-20160707**

Lab Sample ID: 460-116737-1
Client Matrix: Water

Date Sampled: 07/07/2016 0000
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379658	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12610.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 2038			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 2038				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	12	J	1.1	5.0
Benzene	1.6		0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	0.71	J	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	4.2		0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	99		70 - 131
Dibromofluoromethane (Surr)	102		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-116737-2
Client Matrix: Water

Date Sampled: 07/07/2016 1120
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379658	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12609.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 2010			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 2010				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 137
4-Bromofluorobenzene	86		70 - 131
Dibromofluoromethane (Surr)	100		72 - 136
Toluene-d8 (Surr)	94		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: MW-29

Lab Sample ID: 460-116737-3
Client Matrix: Water

Date Sampled: 07/07/2016 1040
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12597.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 1440			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 1440				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	30	J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 137
4-Bromofluorobenzene	98		70 - 131
Dibromofluoromethane (Surr)	104		72 - 136
Toluene-d8 (Surr)	99		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: MW-30

Lab Sample ID: 460-116737-4
Client Matrix: Water

Date Sampled: 07/07/2016 1000
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12598.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 1507			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 1507				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	0.78	J	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 137
4-Bromofluorobenzene	97		70 - 131
Dibromofluoromethane (Surr)	102		72 - 136
Toluene-d8 (Surr)	99		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-3S**

Lab Sample ID: 460-116737-5
Client Matrix: Water

Date Sampled: 07/07/2016 1530
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12588.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 1030			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 1030				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 137
4-Bromofluorobenzene	97		70 - 131
Dibromofluoromethane (Surr)	104		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: MW-23S

Lab Sample ID: 460-116737-6
Client Matrix: Water

Date Sampled: 07/07/2016 1330
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12599.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 1535			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 1535				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 137
4-Bromofluorobenzene	98		70 - 131
Dibromofluoromethane (Surr)	107		72 - 136
Toluene-d8 (Surr)	101		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-23I**

Lab Sample ID: 460-116737-7
Client Matrix: Water

Date Sampled: 07/07/2016 1245
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12600.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 1603			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 1603				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 137
4-Bromofluorobenzene	96		70 - 131
Dibromofluoromethane (Surr)	106		72 - 136
Toluene-d8 (Surr)	99		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-27**

Lab Sample ID: 460-116737-8
Client Matrix: Water

Date Sampled: 07/07/2016 1230
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12601.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 1630			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 1630				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	7.5	J	1.1	5.0
Benzene	1.2		0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	0.43	J	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.4		0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 137
4-Bromofluorobenzene	95		70 - 131
Dibromofluoromethane (Surr)	101		72 - 136
Toluene-d8 (Surr)	96		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-8SR**

Lab Sample ID: 460-116737-9
Client Matrix: Water

Date Sampled: 07/07/2016 1355
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379658	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12611.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 2106			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 2106				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.7		0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	0.73	J	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	4.6		0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 137
4-Bromofluorobenzene	97		70 - 131
Dibromofluoromethane (Surr)	101		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-116737-10
Client Matrix: Water

Date Sampled: 07/07/2016 1535
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379658	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12612.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 2133			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 2133				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.1		0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	0.41	J	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	0.50	J	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 137
4-Bromofluorobenzene	95		70 - 131
Dibromofluoromethane (Surr)	101		72 - 136
Toluene-d8 (Surr)	97		74 - 120

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 460-116737-11TB
Client Matrix: Water

Date Sampled: 07/07/2016 0000
Date Received: 07/08/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-379528	Instrument ID:	CVOAMS12
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	O12583.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/18/2016 0812			Final Weight/Volume:	5 mL
Prep Date:	07/18/2016 0812				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	5.0	U J	1.1	5.0
Benzene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.30	1.0
Methylene Chloride	1.0	U	0.21	1.0
Toluene	1.0	U	0.25	1.0
Trichloroethene	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 137
4-Bromofluorobenzene	98		70 - 131
Dibromofluoromethane (Surr)	105		72 - 136
Toluene-d8 (Surr)	98		74 - 120

Client: ARCADIS U.S. Inc Job Number: 460-116737-1

Client Sample ID: Dup-20160707

Lab Sample ID: 460-116737-1 Date Sampled: 07/07/2016 0000
Client Matrix: Water Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379197	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230102.D
Dilution:	1.0			Initial Weight/Volume:	230 mL
Analysis Date:	07/15/2016 1112			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.4	J	0.71	11
n,n'-Dimethylaniline	1.0	J	0.83	1.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	72		43 - 126
2-Fluorobiphenyl	64		63 - 113
2-Fluorophenol (Surr)	37		13 - 77
Nitrobenzene-d5 (Surr)	72		62 - 120
Phenol-d5 (Surr)	22		10 - 53
Terphenyl-d14 (Surr)	81		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-116737-2
Client Matrix: Water

Date Sampled: 07/07/2016 1120
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379197	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230103.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/15/2016 1134			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	73		43 - 126
2-Fluorobiphenyl	58	X	63 - 113
2-Fluorophenol (Surr)	48		13 - 77
Nitrobenzene-d5 (Surr)	67		62 - 120
Phenol-d5 (Surr)	38		10 - 53
Terphenyl-d14 (Surr)	83		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-29**

Lab Sample ID: 460-116737-3
Client Matrix: Water

Date Sampled: 07/07/2016 1040
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379520	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230182.D
Dilution:	1.0			Initial Weight/Volume:	230 mL
Analysis Date:	07/18/2016 1405			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	11	U	0.71	11
n,n'-Dimethylaniline	1.1	U	0.83	1.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	76		43 - 126
2-Fluorobiphenyl	63		63 - 113
2-Fluorophenol (Surr)	40		13 - 77
Nitrobenzene-d5 (Surr)	74		62 - 120
Phenol-d5 (Surr)	26		10 - 53
Terphenyl-d14 (Surr)	83		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: MW-30

Lab Sample ID: 460-116737-4
Client Matrix: Water

Date Sampled: 07/07/2016 1000
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379197	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230105.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	07/15/2016 1218			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.68	10
n,n'-Dimethylaniline	1.0	U	0.79	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	82		43 - 126
2-Fluorobiphenyl	69		63 - 113
2-Fluorophenol (Surr)	36		13 - 77
Nitrobenzene-d5 (Surr)	72		62 - 120
Phenol-d5 (Surr)	21		10 - 53
Terphenyl-d14 (Surr)	89		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-3S**

Lab Sample ID: 460-116737-5
Client Matrix: Water

Date Sampled: 07/07/2016 1530
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-378749	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M229971.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/13/2016 0615			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	73		43 - 126
2-Fluorobiphenyl	67		63 - 113
2-Fluorophenol (Surr)	41		13 - 77
Nitrobenzene-d5 (Surr)	72		62 - 120
Phenol-d5 (Surr)	26		10 - 53
Terphenyl-d14 (Surr)	95		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-23S**

Lab Sample ID: 460-116737-6
Client Matrix: Water

Date Sampled: 07/07/2016 1330
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379197	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230106.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/15/2016 1241			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	85		43 - 126
2-Fluorobiphenyl	69		63 - 113
2-Fluorophenol (Surr)	38		13 - 77
Nitrobenzene-d5 (Surr)	72		62 - 120
Phenol-d5 (Surr)	22		10 - 53
Terphenyl-d14 (Surr)	95		57 - 125

Client: ARCADIS U.S. Inc Job Number: 460-116737-1

Client Sample ID: MW-23I

Lab Sample ID: 460-116737-7 Date Sampled: 07/07/2016 1245
Client Matrix: Water Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379520	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230183.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	07/18/2016 1427			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	10	U	0.65	10
n,n'-Dimethylaniline	1.0	U	0.76	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	85		43 - 126
2-Fluorobiphenyl	73		63 - 113
2-Fluorophenol (Surr)	45		13 - 77
Nitrobenzene-d5 (Surr)	71		62 - 120
Phenol-d5 (Surr)	31		10 - 53
Terphenyl-d14 (Surr)	93		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-27**

Lab Sample ID: 460-116737-8
Client Matrix: Water

Date Sampled: 07/07/2016 1230
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379520	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230184.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	07/18/2016 1449			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	2.4	J	0.68	10
n,n'-Dimethylaniline	1.2		0.79	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	71		43 - 126
2-Fluorobiphenyl	68		63 - 113
2-Fluorophenol (Surr)	41		13 - 77
Nitrobenzene-d5 (Surr)	73		62 - 120
Phenol-d5 (Surr)	27		10 - 53
Terphenyl-d14 (Surr)	87		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-8SR**

Lab Sample ID: 460-116737-9
Client Matrix: Water

Date Sampled: 07/07/2016 1355
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379520	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230185.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	07/18/2016 1511			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	2.0	J	0.68	10
n,n'-Dimethylaniline	1.1		0.79	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	70		43 - 126
2-Fluorobiphenyl	72		63 - 113
2-Fluorophenol (Surr)	38		13 - 77
Nitrobenzene-d5 (Surr)	69		62 - 120
Phenol-d5 (Surr)	25		10 - 53
Terphenyl-d14 (Surr)	77		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-116737-10
Client Matrix: Water

Date Sampled: 07/07/2016 1535
Date Received: 07/08/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-379520	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-378221	Lab File ID:	M230186.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	07/18/2016 1533			Final Weight/Volume:	2 mL
Prep Date:	07/09/2016 1522			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	0.94	J	0.68	10
n,n'-Dimethylaniline	1.0	U	0.79	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	84		43 - 126
2-Fluorobiphenyl	69		63 - 113
2-Fluorophenol (Surr)	39		13 - 77
Nitrobenzene-d5 (Surr)	77		62 - 120
Phenol-d5 (Surr)	25		10 - 53
Terphenyl-d14 (Surr)	84		57 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-116737-2
Client Matrix: Water

Date Sampled: 07/07/2016 1120
Date Received: 07/08/2016 0900

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-311378	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/15/2016 1703			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	106		62 - 129

Client: ARCADIS U.S. Inc Job Number: 460-116737-1

Client Sample ID: MW-23S

Lab Sample ID: 460-116737-6 Date Sampled: 07/07/2016 1330
Client Matrix: Water Date Received: 07/08/2016 0900

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-311378	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/15/2016 1520			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	83		62 - 129

Client: ARCADIS U.S. Inc Job Number: 460-116737-1

Client Sample ID: **MW-23I**

Lab Sample ID: 460-116737-7 Date Sampled: 07/07/2016 1245
Client Matrix: Water Date Received: 07/08/2016 0900

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-311378	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/15/2016 1528			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	94		62 - 129

Client: ARCADIS U.S. Inc

Job Number: 460-116737-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-116737-10
Client Matrix: Water

Date Sampled: 07/07/2016 1535
Date Received: 07/08/2016 0900

8015D Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015D	Analysis Batch:	480-311378	Instrument ID:	HP5890-4
	N/A		N/A	Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	
Analysis Date:	07/15/2016 1536			Injection Volume:	1 mL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Methanol	1.0	U	0.41	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone	111		62 - 129

ATTACHMENT B

Summary of Historical Groundwater Monitoring Data – March 1988 through October 2010

Attachment B
Summary of Historical Groundwater Monitoring Data, March 1988 through October 2010

Monitoring Memorandum
McKesson Envirosystems Site
Syracuse, New York

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

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-3S	10/03			<12	<5	<5	<5	<5	<5	<10	**4 J**	<5	<1,000
(cont'd)	6/04			**6.0 J**	<10	<10	<10	<10	<10	<20	**0.8 J**	<6	<1,000
	11/04			<25	<10	<10	<10	<10	<10	<20	**4 J**	<5.0	**150 J**
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**15**	<1.0	<1,000
	11/05			<1.3 J	<0.3	<0.5	<0.5	<0.4	<0.4	<0.4	<1.0	<1.0 J	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/06			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500 J
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.6	<0.6	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	**0.17 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
MW-3D	8/95	343.8	339	<1,000	<25 D	<25 D	**200 D**	<25 D	<25 D	<25 D	**1 J**	**5 J**	<1,000
MW-4S	3/88	365.5	350.5	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	1/89			<100	<1	<1	**280**	<1	<1	<1	<11	**19**	<1,000
	11/89			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	10/10			<10 [<10]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	<5.0 [<5.0]	<1.0 [<1.0]	<500 J [<500 J]
MW-5[C]	3/88	363.3	348.3	<100	<1	<1	<1	<1	<1	<1	**230**	**130**	<1,000
	1/89			<100	<1	<1	<1	<1	<1	<1	**34**	<11	<1,000
	11/89			<100	<1	<1	<1	<1	<1	<1	**17**	<10	<1,000
MW-6[D]	1/89	365.5	355.9	<100	<1	<1	<1	<1	<1	<1	<11	<11	<1,000
(Replaced by MW-6S)	11/89			<10	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
MW-7[D]	1/89	367	357.4	<100	<1	<1	**100**	<1	<1	**2**	<11	<11	<1,000
	11/89			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
MW-8[D]	1/89	364.7	355.1	<1,000,000	<10,000	<10,000	**3,200,000**	<10,000	<10,000	<10,000	**2,900**	**24,000**	**430,000**
(Replaced by MW-8S)[E]	11/89			**470,000**	<10,000	<10,000	**2,800,000**	<10,000	<10,000	<10,000	**8,500**	**52,000**	**300,000**
	11/91			<1,000,000	<10,000	<10,000	**1,600,000**	<10,000	<10,000	<30,000	**8,000**	**33,000**	**150,000**
	8/95			<1,000	<250,000D	<250,000D	**7,700,000 D**	<250,000D	**60,000 JD**	<250,000D	<25,000D	**380,000 D**	**22,000**
	9/98			<10,000 J	<10,000	<10,000	**140,000**	<10,000	**3,300 J**	<10,000	**1,200 J**	**26,000 D**	**7,900**
	2/99			<20,000	<20,000	<20,000	**650,000 DB**	<20,000	**11,000 J**	<20,000	**30,000 D**	**120,000 D**	**16,000JN**
	7/99			**10 J**	**22 J**	**58 J**	**450,000 D**	**240 J**	**11,000 J**	**220 J**	**24,000**	**77,000**	**17,000**
	3/00			<100,000	<100,000	<100,000	**1,300,000**	<100,000	<100,000	<100,000	**62,000**	**270,000 D**	**30,000 J**
	9/00			<50,000 J	<50,000 J	<50,000 J	**540,000 BJ**	<50,000 J	**9,200 J**	<50,000 J	**42,000 J**	**59,000**	**14,000 J**
	3/01			<50,000	<50,000	<50,000	**990,000**	<50,000	**11,000 J**	<50,000	**90,000 D**	**120,000 D**	**53,000**
	9/01			<400	<400	**170 J**	**440,000 BD**	**430**	**18,000 JD**	**680**	**21,000**	**29,000**	**8,900 J**
	4/02			**2,100**	**50 J**	**100 J**	**660,000 D**	**410**	**9,600 J**	**400**	**793,000 D**	**773,000 D**	<1,000
	10/02			**120 J**	**23**	**73**	**320,000**	**310**	**3,100**	**267**	**80,000**	**21,000 J**	<1,000
	5/03			<12	**20 J**	**81**	**910,000 D**	**600 D**	**6,700 D**	**300**	**79,000 D**	**29 J**	<1,000
	10/03			**21**	**25**	**93**	**400,000 D**	**330 D**	**3,100 D**	**360**	**67,000 D**	**24,000 D**	**1,200 J**
	6/04			<25	**40**	**110**	**1,200,000 D**	**330 EJ**	**5,900 D**	**400**	**56,000**	**51,000**	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-8SR[B]	11/04	362.7	352.7	<1,200	<500	<500	**10,000 D**	**100 DJ**	<500	**164 DJ**	**35,000 D**	**5,300 D**	<1,000
	6/05			**81 J**	**13**	**53**	<3.0	**100**	<1.0	**180**	**30,000**	<200	<1,000
	11/05			**15 J**	**13**	**66**	<3.0	**130**	<1.0	**260**	**32,000**	<260 J	<1,000
	6/06			**48**	**15**	**79**	<3.0	**120**	<1.0	**260**	**23,000**	<200	<1,000
	9/06			NA	NA	NA	NA	NA	NA	NA	**52,000 [51,000]**	<520 [<520]	NA
	11/06			**28**	**16**	**84**	<3.0	**100**	<1.0	**270**	**28,000**	<200	<500
	6/07			**58**	**14**	**83**	<6.0	**110**	<2.0	**250**	**2,700**	<22	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**17,000**	<100	NA
	11/07			<5.0 J	**12**	**73**	<3.0	**22**	<1.0	**210**	**22,000 J**	<100 J	<500
	3/08			**<10 [9.6 J]**	**5.5 [5.7]**	**70 [68]**	<6.0 [<6.0]	**22 [22]**	<2.0 [<2.0]	**160 [160]**	**5,800 [5,200]**	<25 [<50]	<500 [<500]
	8/08			**8.2 J [<10]**	**11 [11]**	**70 [70]**	<6.0 [<6.0]	**24 [22]**	<2.0 [<2.0]	**190 [190]**	**32,000 [25,000]**	<250 [<250]	<500 [<500]
	3/09			**6.5 J [5.8 J]**	**6.8 [6.8]**	**66 [63]**	<1.0 [<1.0]	**10 [10]**	<1.0 [<1.0]	**140 [140]**	**2,200 [1,800]**	<12 [<12]	<500 [<500]
	6/09			NA	NA	NA	NA	NA	NA	NA	**7,000**	<50	NA
	9/09			**<10 [8.3 J]**	**8.5 J [7.9]**	**44 J [38]**	<1.0 [<1.0]	**6.8 J [6.5]**	<1.0 J [<1.0]	**81 J [71]**	**4,000 [3,400]**	<20 [<20]	<500 [<500]
	4/10			<10 [<10]	**4.2 [3.5]**	**23 J [18]**	<1.0 [<1.0]	**4.6 [3.7]**	<1.0 [<1.0]	**41 [33]**	**370 J [720 J]**	**1.0 J [<5.0]**	<500 [<500]
	10/10			<10	**2.7**	**16**	<1.0	**2.0**	<1.0	**31**	**220**	**1.6**	NA
MW-9[D]	1/89	365.6	356	**1,600**	NA	**130**	**1,500**	**64**	<10	**270**	**660**	**1,200**	<1,000
(Replaced by MW-9S)	11/89			<1,000	**48**	**60**	<10	**25**	<10	**60**	**670**	**150**	<1,000
	11/91			<100	<10	**19**	<1	**9**	<1.0	**30**	**95**	**18**	<1,000
	8/95			<1,000	**11 JD**	**69 D**	**110 D**	**26 JD**	<50	**226 JD**	**50**	**28**	<1,000
	7/99			<10	**4 J**	**9 J**	<10	**2 J**	<10	**18**	<10	**5.0 J**	<1,000
	3/00			<10	**2 J**	**11**	<10	**2 J**	<10	**21**	**2.0 J**	**9.0 J**	<1,000 J
	9/00			<10 J	**11 J**	**6.0 J**	<10 J	**2 J**	<10 J	**18 J**	**1.0 J**	**6.0 J**	<1,000
	3/01			<10	**1 J**	**17**	<10	**3 J**	<10	**61**	**2.0 J**	**11**	<1,000
	9/01			<10	**10**	**7.0 J**	<10	**3 J**	<10	**35**	<10	**10**	<1,000 J
	4/02			<23	**10**	**6**	<5	**2 J**	<5	**17 J**	**9**	**43**	**370 J**
	10/02			**16 J**	**38**	**2 J**	<10	**40**	<10	**15 J**	<5.0	**2.0 J**	<1,000
	5/03			<12	**11**	**7**	<5	**<5**	<5.0	**18**	**0.9 J**	**3.0 J**	<1,000
	10/03			<12	**2 J**	**5**	<5	<5	<5.0	**19**	**1.0 J**	<5.0	<1,000
	6/04			**14 J**	**6 J**	**8 J**	<10	**2.0 J**	<10	**19 J**	<5.0	<5.0	<1,000
	11/04			<25	**4 J**	**9 J**	<10	**2 J**	<10	**30 J**	<5.0	<5.0	<1,000
	6/05			**44 J**	**1.9**	**24**	<3.0	**3.2 J**	<1.0	**64**	**2.6**	**1.9**	<1,000
	11/05			<1.3 J	**3.5**	**11**	<0.5	**3.8**	<0.4	**33**	**1.4**	**6.1 J**	<1,000
	6/06			<5.0 J	**1.1 J**	**25 J**	<3.0 J	**2.3 J**	<1.0 J	**60 J**	<1.1 J	**3.8 J**	<1,000 J
	11/06			<5.0	**1.4**	**23**	<3.0	**3.5 J**	<1.0	**63**	**0.5 J**	**3.3 J**	<500
	6/07			<5.0	**1.4**	**42**	<3.0	**3.3 J**	<1.0	**110**	<5.0	**4.1**	<500
	11/07			<5.0	**0.9 J**	**11**	<3.0	**2.0 J**	<1.0	**58**	**1.7 J**	**8.6**	<500 J
	3/08			<5.0 J	**1.1**	**37**	<3.0	**3.0 J**	**1.2**	**73**	**0.7 J**	**6.8**	<500
	8/08			**24**	**3.7**	**21**	<3.0	**3.3 J**	<1.0	**72**	<5.5	**5.1**	<500
	3/09			<10	**1.2**	**27**	<1.0	**2.5**	<1.0	**65**	<5.0	**4.2**	<500
	9/09			<10	**1.7**	**20**	<1.0	**2.2**	<1.0	**70**	<5.0	**4.1**	**730**
	4/10			<10	**0.86 J**	**26**	<1.0	**2.1**	<1.0	**69**	<5.0	**6.5**	<500
	10/10			<10	**1.3**	**11**	<1.0	**1.9**	<1.0	**45**	<5.1	**7.5**	<500 J

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-10[D]	1/89	355.5	345.9	<1,000,000	<10,000	<10,000	**520,000**	<10,000	<10,000	<10,000	**720**	**9,400**	**210,000**
(Replaced by MW-9D)	11/89			<100,000	<1,000	<1,000	**28,000**	<1,000	<1,000	<1,000	**900**	**2,400**	<1,000
	11/91			<100	<1	**2.0**	**41**	**3.0**	<1	<3.0	**230**	<10	<1,000
	8/95			<1,000	<25 UD	<25 UD	**350 D**	<25 UD	<25 UD	<25 UD	<5.0	<10	<1,000
MW-11[D]	1/89	355.1	345.5	<100	<1	<1	**1**	<1	<1	<1	<12	<12	**8,400**
(Replaced MW-6D)	11/89			<100	<1	<1	<1	<1	<1	<1	**230**	<52	<1,000
	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
MW-11S	12/94	359.9	354.9	<380	<10	<10	<10	<10	<10	<10	<5	<10	**880**
	8/95			<1,000	<5	<5	<26	<5	<5	<5	<5	<10	<1,000
	10/95			NA	<5	<5	<5	<5	<5	<5	NA	NA	NA
MW-11D	12/94	349.8	344.8	<310	<5	<5	<5	<5	<5	<5	<5	<10	**2,100**
	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
	10/95			NA	<5	<5	<5	<5	<5	<5	NA	NA	NA
MW-12D[D]	1/89	354.8	345.2	<100,000	<1,000	<1,000	**120,000**	<1,000	<1,000	<1,000	**67**	**410**	**12,000**
(Replaced MW-8D)[E]	11/89			**69,000**	<1,000	<1,000	**360,000**	<1,000	<1,000	<1,000	<1,000	**4,900**	**39,000**
	11/91			<1,000,000	<10,000	<10,000	**220,000**	<10,000	<10,000	<30,000	**750**	**5,800**	<10,000
	8/95			<1,000	**450 JD**	**430 JD**	<13,000 D	**430 JD**	<1,300 D	**1,250 JD**	**30 D**	**230 D**	<1,000
	8/96			**13**	<10	<10	**40**	<10	**2.0 J**	<10	<5	<10	<1,000
MW-13S	11/89	368.7	359.1	<100	**3**	<1	<1.0	<1	<1.0	<1	<52	<52	<1,000
	11/90			<100	<1	<1	<1.0	<1	<1.0	<3	<10	<10	<1,000
	11/91			<100	<1	<1	<1.0	<1	<1.0	<3	<10	<10	<1,000
	11/92			<100	<1	<1	<1.0	<1	<1.0	<3	<10	<10	<1,000
MW-14D[C]	1/89	359	349.4	<100	<1	<1	<1.0	<1	<1.0	<1	<11	<11	<1,000
	11/89			<100	<1	<1	<1.0	<1	<1.0	<1	<10	<10	<1,000
MW-15S	1/89	370	360.25	<100	<1	<1	<1.0	<1	<1.0	<1	<11	<11	<1,000
	11/89			<100	<1	<1	<1.0	<1	<1.0	<1	<52	<52	<1,000
MW-16D[C]	1/89	350.8	341.2	<100	<1	<1	<1.0	<1	<1.0	<1	<11	<11	<1,000
	11/89			<100	<1	<1	<1.0	<1	<1.0	<1	<10	<10	<1,000
MW-17[C]	11/90	365.7	356.1	<100	<1	<1	<1.0	<1	<1.0	<3	<10	<10	<1,000
(Replaced by MW-17R)	11/91			<100	<1	<1	<1.0	<1	<1.0	<3	<10	<10	<1,000
	11/92			<100	<1	<1	<1.0	<1	<1.0	<3	<10	<10	<1,000
	8/95			<1,000	<5	<5	<11	<5	<5	<5	<5	<10	<1,000
	10/95			NA	<5	<5	<5	<5	**2 J**	<5	NA	NA	NA
	8/96			**11**	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/99			<10	**1 J**	<10	<10 J	<10	<10	<10	<10	<10	<1,000
	3/00			<10	**8 J**	<10	<10	<10	<10	<10	<5.0	<10	<1,000 J
	9/00			<10 J	**15 J**	<10 J	**1 J**	<10 J	<10 J	<10 J	**24 J**	**4 J**	<1,000 J
	3/01			<10	**8 J**	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			<10	**5 J**	<10	<10	<10	<10	<10	<10	<10	<1,000
	4/02			<10	**6**	<5	<5	<5	<5	<10	**150** (<5)[F]	**110** (<5)[F]	**620 J**
	10/02			<25 J	**14**	<10	<10	<10	<10	<20	<5[G]	<5[G]	<1,000
	5/03			<12	**8**	<5	<5	<5	<5	<5	<5	<5	<1,000
	11/03			<12	**7**	<5	<5	<5	<5	<10	<5	<5	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-17[D]	6/04			<25	**5 J**	<10	<10	<10	<10	<20	<5	<5	<1,000
(cont'd)	11/04			--	--	--	--	--	--	--	<5	<5	**200 J**
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0	**0.8 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<1.1	<1.1	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	**0.7 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500 J
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			**2.3 J**	**1.8**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/09			<10	**2.3**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	**0.86 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	**0.22 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	**1.3**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	<500 J
MW-18	11/89	325.15	316.15	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/90			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/91			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/92			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	12/94			<10	<5	<5	<5	<5	<5	<5	<5	<10	<200
	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/96			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	9/98			<10	<10	<10	<10	<10	<10	<10	<5[H]	<10	<1,000
	2/99			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	7/99			<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	4/02			<10	<10	<10	<10	<10	<10	<20	**280 D** (<5)[F]	**200 D** (<5)[F]	**720 J**
	10/02			**6 J**	<10	<10	<10	<10	<10	<20	<5[G]	<5[G]	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	**280 J**
	10/03			<12	<5	<5	<5	<5	<5	<10	**0.7 J**	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	R	R	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.1	<1.1 J	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	<1.0	<4.0	<3	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-18	8/08			**5.5**	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.6	<0.6	<500
(cont'd)	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	**33**	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<500 J
MW-19[K]	11/89	318.45	309.45	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	12/94			<10	<5	<5	<5	<5	<5	<5	<5	<10	<200
	8/95			<1,000	<5	<5	<12	<5	<5	<5	<5	<10	<1,000
	10/95			NA	<5	<5	<5	<5	<5	<5	NA	NA	NA
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/96			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	9/98			<10	<10	<10	<11	<10	<10	<10	<5[H]	**5 J**	<1,000
	2/99			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	4/02			<10	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	<1,000
	10/03			<11	<5	<5	<5	<5	<5	<10	**51 J**	**16 J**	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.1	<1.1	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.5	<1.1	<500
	11/07			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.6	<0.6	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
MW-20[C]	11/89	329.85	320.85	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/90			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/91			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/92			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
MW-21[C]	11/89	323.65	314.65	<100	<5	<1	<1	<1	<1	<1	<10	<10	<1,000
MW-22[L]	11/89	368.55	359.55	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-23S	12/94	364.1	354.1	<10	<5	<5	<5	<5	<5	<5	<5	<10	<200
	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/96			<10	<10	<10	<10	<10	<10	<10	**7**	<10	<1,000
	2/97			<10	<10	<10	<10	<10	<10	<10	**11**	<10	<1,000
	8/97			**12**	<10	<10	<10	<10	<10	<10	**92**	<10	<1,000
	9/98			<10	<10	<10	<10	<10	<10	<10	**56**[H]	**7 J**	<1,000
	2/99			<10	<10	<10	<10 J	<10	<10	<10	<10	**10**	<1,000
	6/99			<10 J	<10	<10	<10 J	<10	<10	<10	<10 J	**2 J**	<1,000 J
	7/99			<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	**2 J**	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	**2 J**	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	4/02			<10	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	5/03			<62	<25	<25	<25	<25	<25	<50	<5	<5	**380 J**
	10/03			<12	<5	<5	<5	<5	<5	<10	**60**	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.2	<1.2	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.6	<0.6	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			**3.7 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
MW-23I	12/94	341.2	336.2	<10	<5.0	<5.0	<5	<5	<5.0	<5.0	<5.0	<10	<200
	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/96			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<11	<1,000
	9/98			<10	<10	<10	<10	<10	<10	<10	<5[H]	<10	<1,000
	2/99			<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<1,000
	7/99			<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-23I	9/01			**4 J**	<10	<10	<10	<10	<10	**2 J**	<10	<10	<1,000
(cont'd)	4/02			<10	<5	<5	**2 J**	<5	<5	<10	<5	<5	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	**1 J**	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0 J	<1.0	<4.0	<3.0	**0.6 J**	<1.0	<5.0	<1.0	<1.0	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	**8.4**	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
MW-24S[CL]	12/94	358.4	352.4	<10	<5	<5	<5	<5	<5	<5	<5	<10	<1,000
(Replaced by MW-24SR)	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	9/98			<10	<10	<10	<10	<10	<10	<10	<5[H]	<10	<1,000
	6/99			<10 J	<10	<10	<10 J	<10	<10	<10	<10 J	<10 J	<1,000 J
	7/99			<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	3/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	6/02[F]			NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	**16**	<6	<1,000
	6/04[J]			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.7	<0.6	<500
	9/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
MW-24D[CL]	12/94	334.4	341.2	<10	<5	<5	<5	<5	<5	<5	<5	<10	<1,000
(Replaced by MW-24DR)	8/95			<1,000	<5	<5	<10	<5	<5	<5	<5	<10	<1,000
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-24D[DL]	9/98			<10	<10	<10	<10	<10	<10	<10	<5[H]	<10	<1,000
(cont'd)	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<10	<1,000
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	6/02[F]			NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	**0.5 J**	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5 J	<1	<4	<3	<5	<1	<5	<1	<1	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.1	<1.1 J	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.7	<0.6	<500
	9/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
MW-25S[L]	8/95	361.2	356.2	<1,000	<5	<5	<10	<5	<5	<5	<5	**0.7 J**	<1,000
	10/95			NA	<5	<5	<5	<5	<5	<5	<5	<10	NA
	8/96			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/99			<10	<10	<10	<10 J	<10	<10	<10	**130**	<10	<1,000
	6/99			<10 J	<10	<10	<10 J	<10	<10	<10	**110 J**	**21 J**	<1,000 J
	7/99			<10 J	<10	<10	<10	<10	<10	<10	**5 J**	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	4/02			<10	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	10/02			<25	<10	<10	<10	<10	<10	<20	<5[G]	<5[G]	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	<1,000
	11/03			<12	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.1	<1.1	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.2	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-25D[L]	8/95	349.55	344.55	<1,000	<5	<5	<5	<5	<5	<5	<5	**1 J**	<1,000
	10/95			NA	<5	<5	<5	<5	**3 J**	<5	<5	<10	NA
	8/96			**15**	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<11	<1,000
	2/99			<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	**5 J**	<10	<1,000
	4/02			<10	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	6/06			<5.0 J	<1.0	<4.0	<3.0	**0.7 J**	<1.0	<5.0	<1.0	<1.0	<1,000
	6/07			**12 J**	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
MW-26	12/96	365	355.3	<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
MW-27	9/98	362.5	354.5	**23**	**3 J**	<10	<10	**4 J**	<10	**3 J**	**340 DJ**	<10	<1,000
	7/99			<10 J	**4 J**	**3 J**	<10	**2 J**	<10	**8 J**	**740 D**	<10	<1,000
	3/00			<10	**6 J**	**8 J**	<10	<10	<10	**2 J**	**110 D**	**1 J**	<1,000 J
	9/00			<10 J	**4 J**	**3 J**	**1 J**	<10 J	<10 J	**1 J**	**16 J**	**2 J**	<1,000 J
	3/01			<10	**5 J**	**5 J**	<10	<10	<10	**2 J**	**260 D**	**2 J**	<1,000
	9/01			<10	**5 J**	**2 J**	<10	<10	<10	<10	**26**	<10	<1,000 J
	4/02			<18	**7**	**12**	<5	**11**	<5	**26**	**176,000 DJ**	**19 J**	<1,000
	10/02			**9 J**	**3 J**	<10	**60 JN**	<10	**4 J**	<20	**2,700 D**	**100 J**	<1,000
	5/03			<12	**8**	**23**	**43**	**11**	<5	**51**	**15,000 DJ**	**11**	<1,000
	10/03			**170**	**5**	<5	**240 D**	<5	<5	**3 J**	**3,700 D**	<5	<1,000
	6/04			**23 J**	**5 J**	**2 J**	<10	**4 J**	<10	**6 J**	**3,700 D**	**20 J**	<1,000
	11/04			<120 (28)	<50 (**4 J**)	<50 (<10)	**310 (490 D)**	<50 (**2 J**)	<50 (<10)	<100 (<20)	**1,100 DJ**	<5	<1,000
	6/05			**31 J**	**6.1**	**5.8**	<3.0	**15**	<1.0	**15**	**5,200**	<23	<1,000
	11/05			**35 J (37 J)**	**11 (12)**	**26 (26)**	<3.0 (<3.0)	**77 (78)**	<1.0 (<1.0)	**86 (88)**	**37,000 (38,000)**	<270 J (<260 J)	<1,000 (<1,000)
	6/06			**5.3 J (5.8 J)**	**9.5 J (8.9 J)**	**25 J (25 J)**	<3.0 J (<3.0 J)	**50 J (48 J)**	<1.0 J (<1.0 J)	**66 J (63 J)**	**14,000 J (12,000 J)**	<100 J (<100 J)	<1,000 J (<1,000 J)
	9/06			NA	NA	NA	NA	NA	NA	NA	**1,700**	<10	NA
	11/06			**31 [24]**	**14 [14]**	**42 [45]**	<3.0 [<3.0]	**71 [71]**	<1.0 [<1.0]	**91 [110]**	**33,000 [33,000]**	<210 [<200]	<500 [<500]
	6/07			**21**	**8.4**	**14**	<3.0	**9.5**	<1.0	**24**	**1,100**	<10	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**<10 J [4,300 J]**	<1.0 [<20]	NA
	11/07			<5.0 J [<5.0]	**6.6 [5.9]**	**8.6 [7.2]**	<3.0 [<3.0]	**4.7 J [4.1 J]**	<1.0 [<1.0]	**24 [21]**	**3,000 J [3,800 J]**	<25 J [<25 J]	<500 [<500]
	3/08			**21**	**9.4**	**43**	<6.0	**23**	<2.0	**68**	**13,000**	<100	<500
	8/08			**3.8 J**	**5**	**1.8 J**	<3.0	**2.2 J**	<1.0	**10**	**2,400**	<25	<500
	3/09			**14 J**	**8.7**	**36**	<1.0	**9.4**	<1.0	**88**	**8,200 J**	<50 J	<500
	6/09			NA	NA	NA	NA	NA	NA	NA	**7,400**	<50	NA
	9/09			**10**	**6.2**	**5.9**	<1.0	**6.9**	<1.0	**23**	**2,100**	<10	<500
	4/10			<10	**4.5**	**6.1**	<1.0	**2.4**	<1.0	**10**	**1,300**	<10	<500
	10/10			<10	**2.7**	**1.4**	<1.0	**1.3**	<1.0	**3.4**	**220**	**2.5**	NA

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-28	9/98	363.6	355.6	<5,000 J	<5,000	<5,000	**64,000 J**	<5,000	<5,000	<5,000	**546 D[H]**	**54**	**2,200**
	7/99			<500 J	<500	<500	**39,000 D**	<500	<500	<500	**1,100 D**	**40**	<1,000
	3/00			<10,000	<10,000	<10,000	**130,000 J**	<10,000	<10,000	<10,000	**1,300 D**	**30**	<1,000 J
	9/00			<1,000 J	<1,000 J	<1,000 J	**8,100 BJ**	<1,000 J	<1,000 J	<1,000 J	**540 DJ**	<10	<1,000 J
	3/01			<400	<400	<400	**5,900 B**	<400	<400	<400	**3,200 D**	**7 J**	<1,000
	9/01			<400	<400	<400	**4,700 B**	<400	<400	<400	**1,000 D**	<10	<1,000 J
	4/02			<49	**8**	**9**	**4,600 D**	**6**	<5	**10 J**	**33,400 D**	**57**	<1,000
	10/02			**14 J**	**8 J**	**11**	<10	**6 J**	<10	**12 J**	**2,700 D**	R	<1,000
	5/03			**13**	**4 J**	**2 J**	**52**	**2 J**	<5	**8 J**	**1,000 DJ**	**3 J**	<1,000
	10/03			**24**	**11**	**12**	<5	**6**	<5	**13 J**	**1,900 D**	<5	<1,000
	6/04			**20 J**	**4 J**	**5 J**	<10	**2 J**	<10	**4 J**	**910 D**	<5	<1,000
	11/04			<120 (<25)	<50 (**4 J**)	<50 (**5 J**)	<50 (<10)	<50 (<10)	<50 (<10)	<100 (**3 J**)	**640 DJ**	<5	**190 J**
	6/05			**5.2 J**	**4.5**	**4.6**	<3.0	**1.2 J**	<1.0	**3.9 J**	**630**	<5.0	<1,000
	11/05			**6.8 J (7.8 J)**	**6.1 (5.8)**	**4.7 (4.7)**	<3.0 (<3.0)	<5.0 (<5.0)	<1.0 (<1.0)	<5.0 (<5.0)	**380 J (350 J)**	<2.2 (<2.1)	<1,000 (<1,000)
	6/06			<5.0 J (<5.0 J)	**6.0 J (6.3 J)**	**5.3 J (5.4 J)**	<3.0 J (<3.0 J)	**1.2 J (1.3 J)**	<1.0 J (<1.0 J)	**4.2 J (4.3 J)**	**430 J (530 J)**	<2.1 J (<5.0 J)	<500 J (<1,000 J)
	9/06			NA	NA	NA	NA	NA	NA	NA	**280**	<2.2	NA
	11/06			**12**	**8.2**	**5.6**	<3.0	**1.4 J**	<1.0	**4.4 J**	**1,000**	<5.2	<500
	6/07			**13**	**4.6**	**0.8 J**	<3.0	**0.4 J**	<1.0	**0.6 J**	**60**	<1.0	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**40**	<1.0	NA
	11/07			<5.0 J	**4.5**	**1.4 J**	<3.0	**0.5 J**	<1.0	**0.8 J**	**29 J**	<0.5 J	<500
	3/08			<5.0	**4.0**	**1.6 J**	<3.0	**0.5 J**	<1.0	**1.3 J**	**81**	**0.9**	<500
	8/08			<5.0	**3.8**	<4.0	<3.0	<5.0	<1.0	<5.0	**0.7 J**	<0.5	<500
	3/09			<10	**3.5**	**0.8 J**	<1.0	**0.3 J**	<1.0	**1.1 J**	**18**	<0.5	**851**
	9/09			<10	**3.1**	**0.32 J**	<1.0	**0.25 J**	<1.0	**0.48 J**	**6.7**	<1.0	<500
	4/10			<10	**2.8**	**0.60 J**	<1.0	**0.23 J**	<1.0	**0.46 J**	<5.0	**0.49 J**	<500
	10/10			<10	**1.8**	<1.0	<1.0	<1.0	<1.0	<3.0	**2.4 J**	**0.60 J**	<500 J
MW-29	9/98	362.9	345.9	<10	<10	<10	<10	<10	<10	**2 J**	<10	**13**	<1,000
	2/99			**7 J**	<10	<10	<10	<10	<10	**1 J**	**5 J**	**4 J**	<1,000
	7/99			<10	<10	<10	<10	<10	<10	<10	**2 J**	**4 J**	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	**450 D**	**6 J**	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	**24 J**	**4 J**	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	**30**	**4 J**	<1,000
	9/01			<10	<10	<10	<10	<10	<10	<10	**7 J**	**2 J**	<1,000
	4/02			<10	<5	<5	<6	<5	<5	<10	**3 J**	**9**	<1,000
	10/02			<25 J	<10	<10	**4 JN**	<10	<10	<20	**8**	R	<1,000
	5/03			<12	<5	<5	<3	<5	<5	<10	**19**	**1 J**	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	**2 J**	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	**3 J**	<5	<1,000
	11/04			<120	<50	<50	<50	<50	<50	<100	<5	<5	**420 J**
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/06			**5.4**	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**0.4 J**	<1.0	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	**0.5 J**	<5.5	<1.1	<500

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-29	11/07			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0 J	<0.5 J	<500
(cont'd)	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<3.0	<5.0	**0.29 J**	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
MW-30	9/98	363.5	355.5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	2/99			**7 J**	<10	<10	<10	<10	<10	<10	<10	**2 J**	<1,000
	7/99			<10	**0.7 J**	<10	<10	<10	**0.5 J**	<10	<10	**1 J**	<1,000
	3/00			<10	<10	<10	**4 J**	<10	<10	<10	**18**	**2 J**	<1,000 J
	9/00			<10 J	<10 J	<10 J	**2 J**	<10 J	<10 J	<10 J	**9 J**	**2 J**	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	**8 J**	**2 J**	<1,000
	9/01			**4 J**	**2 J**	<10	<10	<10	<10	<10	**8 J**	**1 J**	<1,000 J
	4/02			<10	<5	<5	<5	<5	<5	<10	**250**	**210**	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	R	R	<1,000
	5/03			<62	<25	<25	**8 J**	<25	<25	<50	**18**	0.6 J	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	**4 J**	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			<120	<50	<50	<50	<50	<50	<100	<5	<5	<1,000
	6/05			<5.0 J	**0.3 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	**0.7 J**	<4.0	<3.0	**0.6 J**	<1.0	**0.5 J**	**240**	<1.0 J	<1,000
	6/06			<5.0	**0.6 J**	<4.0	<3.0	**0.4 J**	<1.0	<5.0	**29**	<1.0	<1,000
	11/06			**11**	**1.0**	<4.0	<3.0	<5.0	<1.0	<5.0	**200**	<1.0	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**30**	<1.1	<500
	11/07			<5.0 J	**0.8 J**	<4.0	<3.0	<5.0	<1.0	<5.0	**49**	<0.5	<500
	3/08			<5.0	**0.6 J**	<4.0	<3.0	<5.0	<1.0	**0.2 J**	**3.0 J**	**0.7**	<500
	8/08			<5.0	**0.7 J**	<4.0	<3.0	<5.0	<1.0	<5.0	**31**	<0.5	<500
	3/09			<10	**0.8 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	**0.78 J**	<1.0	<1.0	**0.17 J**	<1.0	<3.0	**21**	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10 J	**0.14 J**	<1.0	**37**	<1.0	<1.0	<3.0	<5.1	<1.0	NA
MW-31	9/98	363.7	355.4	<10	**12**	<10	<10	<10	<10	<10	**34**	**4 J**	<1,000
	7/99			<10	**16**	<10	<10	<10	<10	<10	**230 D**	**3 J**	<1,000
	3/00			<10	**16**	<10	<10	<10	<10	<10	**3 J**	**4 J**	<1,000 J
	9/00			<10 J	**12 J**	<10 J	<10 J	<10 J	<10 J	<10 J	**10**	**6 J**	<1,000
	3/01			**21**	**11**	<10	<10	<10	<10	<10	<10	**5 J**	<1,000
	9/01			<10	**14**	<10	<10	<10	<10	<10	**91 D**	**3 J**	<1,000 J
	4/02			<14	**9**	<5	<5	<5	<5	<10	**804 D**	**21**	<1,000
	10/02			<25	**11**	<10	<10	<10	<10	<20	**560 D**	**1 J**	<1,000
	5/03			<12	**9**	<5	<5	<5	<5	<10	**0.9 J**	**3 J**	<1,000
	10/03			**1,200 D**	**13**	<5	<5	<5	<5	<5	**88**	<5	<1,000
	6/04			**15 J**	**12**	<10	<10	<10	<10	<20	**3 J**	<5	<1,000
	11/04			<25	**9 J**	<10	<10	<10	<10	<20	<5	<5	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-31	6/05			<5.0 J	**11**	<4.0	<3.0	<5.0	<1.0	**1.3 J**	**3.2**	**2.7**	<1,000
(cont'd)	11/05			<1.3 J	**6.7**	<0.5	<0.5	<0.4	<0.4	**0.6**	**16**	<1.0 J	<1,000
	6/06			<5.0 J	**11 J**	<4.0 J	<3.0 J	**0.6 J**	<1.0 J	**1.7 J**	<1.0 J	**2.4 J**	<1,000 J
	9/06			NA	NA	NA	NA	NA	NA	NA	**1.6**	**3.4**	NA
	11/06			R	**6.9**	<4.0	<3.0	<5.0	<1.0	<5.0	**0.4 J**	**1.1 J**	<500
	6/07			<5.0	**14**	<4.0	<3.0	**0.7 J**	<1.0	**1.3 J**	<5.0	**2.0**	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**0.5 J**	**2.7**	NA
	11/07			<5.0 [<5.0]	**12 [10]**	<4.0 [<4.0]	<3.0 [<3.0]	<5.0 [0.4 J]	<1.0 [<1.0]	**1.1 J [1.4 J]**	<5.0 [0.3 J]	**2.3 [2.8]**	<500 J [<500 J]
	3/08			<5.0 J	**2.0**	<4.0	<3.0	<5.0	<1.0	<5.0	**0.2 J**	**1.6**	<500
	8/08			**22**	**13**	<1.0	<3.0	**0.4 J**	<1.0	**2.2 J**	<5.6	**2.4**	<500
	3/09			**9.4 J**	**8.3**	< 1.0	<1.0	**0.6 J**	<1.0	**0.8 J**	<5.0	**2.3**	<500
	9/09			<10	**10**	<1.0	<1.0	**0.49 J**	<1.0	**2.0 J**	<5.0	**2.5**	**730**
	4/10			<10	**4.8**	<1.0	<1.0	**0.40 J**	<1.0	**1.3 J**	<5.0	**2.3**	<500
	10/10			<10	**6.9**	<1.0	<1.0	**0.50 J**	<1.0	**1.5 J**	<5.3	**3.5**	<500 J
MW-32	9/98	364	356	<10	**16**	**5 J**	<10	**2 J**	<10	**3 J**	**6,300 D**	**4 J**	<1,000
	7/99			**3 J**	**14**	**4 J**	<10	**2 J**	**56**	<10	<10	**3 J**	<1,000
	3/00			<10	**5 J**	<10	<10	<10	<10	<10	**800 D**	<10	<1,000 J
	9/00			<10 J	**12 J**	<10 J	<10 J	<10 J	<10 J	<10 J	**4,500 D**	<10	<1,000
	3/01			<10	**5 J**	<10	<10	<10	<10	<10	**1,900 D**	**2 J**	<1,000
	9/01			<10	**10**	<10	<10	<10	<10	<10	**1,100 D**	**2 J**	<1,000 J
	4/02			<15	**4 J**	<5	<5	<5	<5	<10	**4,620 D**	**11**	<1,000
	10/02			<25	**4 J**	<10	<10	<10	<10	<20	**50**	R	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<10	**0.6 J**	**0.7 J**	<1,000
	10/03			**20**	**2 J**	<5	<5	<5	<5	<10	<5	<5	<1,000
	6/04			**6 J**	**1 J**	<10	<10	<10	<10	<20	**1 J**	<5	<1,000
	11/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	6/05			<5.0 J	**1.0**	<4.0	<3.0	<5.0	<1.0	<5.0	**0.4 J**	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0 J	<1.0 J	<4.0 J	<3.0 J	<5.0 J	<1.0 J	<5.0 J	<1.0 J	<1.0 J	<1,000 J
	11/06			R	<1.0	<4.0	<3.0	**0.8 J**	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**0.1 J**	**0.8**	<500 J
	3/08			<5.0 J	**0.8 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	**0.8**	<500
	8/08			**5.8**	**0.3 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.7	<0.6	<500
	3/09			<10	**0.5 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**1.1**	**1,200**
	4/10			<10	**0.23 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**0.89 J**	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	**0.87 J**	<500 J
MW-33	9/98	344.1	356.1	<10	<10	<10	<10	<10	<10	<10	**9 J**	**6 J**	<1,000
	2/99			<10	<10	<10	<10	<10	<10	<10	**120**	**6 J**	<1,000
	7/99			**5 J**	**2 J**	<10	<23	**0.7 J**	<10	<10	**150**	**8 J**	<1,000
	3/00			<10 J	<10	<10	**11**	<10	<10	<10	**51**	**7 J**	<1,000 J
	9/00			**45 J**	**4 J**	<10 J	**330 DJ**	**1 J**	<10 J	<10 J	**540 D**	**23**	<1,000
	3/01			**17 J**	<20	<20	**370 B**	<20	<20	<20	**1,300 D**	**16**	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-33	9/01			**21**	**5 J**	<10	<18	<10	<10	<10	**1,900 D**	**12**	<1,000 J
(cont'd)	4/02			<18	**3 J**	<5	**19**	<5	<5	<10	**2,780 D**	**21**	<1,000
	10/02			**11 J**	**4 J**	<10	**4 J**	<10	<10	<20	**290 D**	**3 J**	<1,000
	5/03			**88**	**13**	<5	**2,800 D**	<5	<5	<10	**2,000**	**35 J**	<1,000
	10/03			**22**	**2 J**	<5	<5	<5	<5	<10	**1,900 D**	<6	<1,000
	6/04			**9 J**	**12 J**	<10 J	<10 J	<10 J	<10 J	<20 J	**2,700 D**	**5 J**	<1,000
	11/04			--	--	--	--	--	--	--	**2,700 D**	**5 J**	<1,000
	6/05			<5.0 J	**11**	<4.0	<3.0	**1.0 J**	<1.0	<5.0	**1,800**	<10	<1,000
	11/05			<5.0 J	**16**	<4.0	<3.0	**1.8 J**	<1.0	<5.0	**3,500**	<25 J	<1,000
	6/06			<5.0 J	**6.7 J**	<4.0 J	<3.0 J	**0.7 J**	<1.0 J	<5.0 J	**370 J**	**3.5 J**	<1,000 J
	9/06			NA	NA	NA	NA	NA	NA	NA	**940**	**8.0**	NA
	11/06			**17 J**	**8.6**	<4.0	<3.0	**0.7 J**	<1.0	<5.0	**84**	**2.9 J**	<500
	6/07			<5.0	**5.7**	<4.0	<3.0	**0.4 J**	<1.0	<5.0	**46**	**2.6**	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**46**	**4.2**	NA
	11/07			<5.0	**4.0**	<4.0	<3.0	<5.0	<1.0	<5.0	**0.1 J**	**3.5**	<500 J
	3/08			<5.0 J	**4.1**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	**4.1**	<500
	8/08			<5.0	**3.2**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.9	**2.8**	<500
	3/09			<10	**3.2**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**2.4**	<500
	9/09			<10	**2.6**	<1.0	<1.0	**0.20 J**	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	**1.6**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**2.0**	<500
	10/10			<10	**1.7**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	**2.7**	NA
MW-34	9/98	362.7	354.7	<10	<10	<10	<10	<10	<10	<10	**83**	<10	<1,000
	7/99			**2 J**	**0.9 J**	<10	<10	**1 J**	<10	<10	**380 D**	**2 J**	<1,000
	3/00			<10 J	**1 J**	<10	<10	**2 J**	<10	<10	**200 D**	**3 J**	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	**320 D**	**4 J**	<1,000
	3/01			<10	<10	<10	<10	**2 J**	<10	**2 J**	**700 D**	**5 J**	<1,000
	9/01			**7 J**	**2 J**	<10	<10	**2 J**	<10	**2 J**	**76**	**3 J**	<1,000 J
	4/02			<32	<5	<5	<5	<5	<5	<10	**640 D**	**15**	<1,000
	10/02			**37 J**	<10	<10	<10	<10	<10	<20	**380 DJ**	**2 J**	<1,000
	5/03			**16**	<5	<5	<5	<5	<5	<10	**140**	**3 J**	<1,000
	10/03			**9 J**	<5	<5	<5	<5	<5	<10	**18**	<5	<1,000
	6/04			**24 J**	<10	<10	<10	<10	<10	<20	**30**	<5	<1,000
	11/04			<25	<10	<10	<10	<10	<10	<20	**14**	<5	**180 J**
	6/05			**5.6 J**	**0.7 J**	<4.0	<3.0	**0.9 J**	**0.4 J**	**1.2 J**	**16**	**2.5**	<1,000
	11/05			**20 J**	<0.3	<0.5	<0.5	**0.9**	<0.4	**1.1**	**12**	**2 J**	<1,000
	6/06			**6.4**	**0.6 J**	<4.0	<3.0	**0.5 J**	<1.0	<5.0	**16**	**2.3**	<1,000
	11/06			**49 J**	<1.0	<4.0	<3.0	**0.6 J**	<1.0	**0.6 J**	**9.9**	**1.2 J**	<500
	6/07			**22**	**0.9 J**	<4.0	<3.0	**0.5 J**	<1.0	**0.6 J**	<5.0	<1.0	<500
	11/07			<5.0	**0.8 J**	<4.0	<3.0	**0.6 J**	<1.0	**1.1 J**	**0.3 J**	**1.5**	<500 J
	3/08			**16**	**1.0 J**	<4.0	<3.0	**0.5 J**	<1.0	**1.1 J**	**24**	**1.3**	<500
	8/08			**12**	**0.8 J**	<4.0	<3.0	**0.5 J**	<1.0	**1.1 J**	**0.6 J**	**1.6**	<500
	3/09			**14**	**1.4**	<1.0	<1.0	**0.7 J**	<1.0	**1.5 J**	**12**	**2.0**	<500
	9/09			**24**	<1.0	<1.0	<1.0	**0.64 J**	<1.0	**1.7 J**	<5.0	**2.5**	**1,000**
	4/10			**50 J**	**0.82 J**	<1.0	<1.0	**0.42 J**	<1.0	**1.4 J**	<5.0	**2.4**	<500
	10/10			**20**	**1.0**	<1.0	<1.0	**0.44 J**	<1.0	**1.3 J**	**1.8 J**	**2.9**	<500 J

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-35	9/98	363	355	<10	<10	<10	<10	<10	<10	<10	**6 J**	**5 J**	<1,000
	7/99			<10	**0.7 J**	<10	<10	<10	<10	<10	**3 J**	**4 J**	<1,000
	3/00			<10 J	<10	<10	<10	<10	<10	<10	<10	**2 J**	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	**3 J**	<1,000
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	**2 J**	<1,000 J
	4/02			<13	<5	<5	<5	<5	<5	<10	**3 J**	**4 J**	<1,000
	10/02			<25	<10	<10	<10	<10	<10	<20	**2 J**	R	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<10	**1,000**	<100	<1,000
	10/03			**5 J**	<5	<5	<5	<5	<5	<10	**4 J**	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	**30**	**4 J**	<1,000
	11/04			<25	<10	<10	<10	<10	<10	<20	**82**	<5	**240 J**
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**0.4 J**	<1.0	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**1.1**	<1.0 J	<500
	6/07			**13**	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500 J
	3/08			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			**5.4**	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**1.1 J**	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			**6.5 J**	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<3.0	<5.0	<1.0	**1,100**
	4/10			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
MW-36[E]	9/98	363.6	355.6	<10	<10	<10	<10	<10	<10	<10	**290 D**	**6 J**	<1,000
	2/99			<10	<10	<10	<10	<10	<10	<10	**860 D**	**4 J**	<1,000
	7/99			**8 J**	**0.8 J**	<10	<10	<10	<10	<10	**250**	<10	<1,000
	3/00			<10 J	<10	<10	<10	<10	<10	<10	**60**	**7 J**	<1,000 J
	9/00			**5 J**	<10 J	<10 J	<5	<10 J	<10 J	<10 J	**8 J**	**6 J**	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	9/01			**54**	<10	<10	<10	<10	<10	<10	**350 D**	**5 J**	<1,000 J
	4/02			<20	<5	<5	<5	<5	<5	<10	**9**	**41**	<1,000
	10/02			**12 J**	<10	<10	<10	<10	<10	<20	**2 J**	**2 J**	<1,000
	5/03			**9 J**	<5	<5	<5	<5	<5	<10	**67**	**4 J**	<1,000
	10/03			**580 D**	<5	<5	<5	<5	<5	<10	**100**	<5	<1,000
	6/04			**22 J**	<10 J	<10 J	<10 J	<10 J	<10 J	<20 J	**33**	**7**	<1,000
	11/04			**13 J**	<10	<10	<10	<10	<10	<20	**22**	<5	<1,000
	6/05			**24 J**	**2.1**	<4.0	<3.0	<5.0	<1.0	**1.0 J**	**1,200**	<5.4	<1,000
	11/05			**77 J**	**3.6**	**0.6 J**	<3.0	**2.0 J**	<1.0	**2.8 J**	**1,600**	<10 J	<1,000
	6/06			**25**	**1.6**	<4.0	<3.0	**0.7 J**	<1.0	**1.2 J**	**76**	**1.9**	<1,000
	9/06			NA	NA	NA	NA	NA	NA	NA	**3.5**	**1.2**	NA
	11/06			**130 J**	**3.6**	<4.0	<3.0	**1.2 J**	<1.0	**1.1 J**	**420**	**1.7 J**	<500
	6/07			**33**	**4.6**	**0.8 J**	<3.0	**1.4 J**	<1.0	**5.0**	**1,300**	<10	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**740**	<5.0	NA
	11/07			**10**	**4.5**	**0.9 J**	<3.0	**1.7 J**	<1.0	**5.3**	**480 J**	**3.4 J**	<500 J
	3/08			**8.0 J**	**4.2**	**0.8 J**	<3.0	**1.5 J**	<1.0	**5.5**	**130**	**3.0**	<500

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
MW-36[E]	8/08			**27**	**3.7**	**0.6 J**	<3.0	**1.4 J**	<1.0	**5.7**	**4.5 J**	**3.2**	<500
(cont'd)	3/09			**28**	**2.4**	<1.0	<1.0	**0.8 J**	<1.0	**2.8 J**	**150**	**2.8**	<500
	6/09			NA	NA	NA	NA	NA	NA	NA	**460**	<5.0	NA
	9/09			**21**	**3.1**	<1.0	<1.0	**0.96 J**	<1.0	**3.2**	**390**	**3.1**	<500
	4/10			<10 J	**3.3**	**0.26 J**	<1.0	**1.1**	<1.0	**5.4**	**77**	**2.6**	<500
	10/10			**12**	**3.9**	**0.28 J**	<1.0	**1.2**	<1.0	**4.8**	**620**	<5.0	<500 J
TW-01	12/96	365.1	355.4	<10	**82**	**6 J**	**4 J**	**4 J**	<10	**4 J**	**2,090 D**	**13**	<1,000
	9/98			<10	**15**	**4 J**	<10	<10	<10	<10	**4,400 DEJ**	**4 J**	<1,000
	2/99			<10	**24**	**2 J**	<10	**2 J**	<10	**2 J**	**9,000 D**	**5 J**	<1,000
	7/99			<10	**16**	**3 J**	<10	**1 J**	<10	<10	**4,400 D**	**4 J**	<1,000
	3/00			<10	**16**	<10	<10	<10	<10	<10	**280 D**	**4 J**	<1,000 J
	9/00			<10 J	**11 J**	<10 J	<10 J	<10 J	<10 J	<10 J	**15**	**2 J**	<1,000
	3/01			<10	**5 J**	<10	<10	<10	<10	<10	<10	**3 J**	<1,000
	9/01			<10	**10**	<10	<10	<10	<10	<10	<10	**2 J**	<1,000 J
	4/02			<14	**3 J**	<5	<5	<5	<5	<10	**8**	**13**	<1,000
	10/02			<25	**7 J**	<10	<10	<10	<10	<20	<5	R	<1,000
	5/03			<12	**7**	<5	<5	<5	<5	<10	<5	**1 J**	<1,000
	10/03			<12	**6**	<5	<5	<5	<5	<10	**0.6 J**	<5	<1,000
	6/04			**6 J**	**3 J**	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			<25	**2 J**	<10	<10	<10	<10	<20	<5	<5	<1,000
	6/05			<5.0 J	**1.8**	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<1.3 J	**1.9**	<0.5	<0.5	<0.4	<0.4	<0.4	<1.0	<1.0 J	<1,000
	6/06			<5.0 J	**1 J**	<4.0 J	<3.0 J	<5.0 J	<1.0 J	<5.0 J	<1.0 J	**0.8 J**	<1,000 J
	11/06			R	**0.7 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	6/07			**7.8**	**0.5 J**	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500
	11/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	**0.2 J**	**1.1**	<500 J
	3/08			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	**1.0**	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.6	<0.6	<500
	3/09			<10	**1.9**	<1.0	<1.0	<1.0	<1.0	**0.6 J**	<5.0	<0.5	**22,300**
	9/09			**2.9 J**	<1.0	<1.0	<1.0	**0.11 J**	<1.0	<3.0	<5.0	**1.1**	**970**
	4/10			<10	**0.32 J**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	**1.0**	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	**1.3**	<500 J
TW-02[C]	12/96	363.3	353.3	**53**	**10**	**16**	**42,449 D**	**77**	**585 D**	**65**	**15,900 JD**	**3,920 D**	<1,000
(Replaced by TW-02R)[E]	9/98			<500 J	<500 J	<500 J	**86,000 D**	<500 J	**300 J**	**53,000**	**38,000 D**	**61,000 D**	**5,000**
	2/99			<1,000	<1,000	<1,000	**14,000 B**	**190 J**	<1,000	**150 J**	**83,000 D**	**7,900**	**14,000JN**
	7/99			**630**	**37**	**31**	**9,700 D**	**240 J**	**55**	**150**	**100,000 D**	**3,500 J**	<1,000
	3/00			<1,000 J	<1,000	<1,000	**13,000**	**160 J**	<1,000	**240 J**	**64,000 D**	**3,900**	<1,000 J
	9/00			**190 J**	**28 J**	**35 J**	**390 J**	**95 J**	**6 J**	**160 J**	**79,000**	<10,000	<1,000
	3/01			**81**	**19**	**28**	**400 D**	**68**	<10	**130**	**67,000 D**	**650 J**	<1,000
	9/01			**57**	**25**	**31**	**48 B**	**70**	<20	**140**	**63,000 D**	**32**	<1,000 J
	4/02			**240**	**19**	**23**	**14**	**65**	<5	**96**	**1,090,000 D**	<5,300	<1,000
	10/02			**110 J**	**15**	**23**	<10	**19**	<10	**65**	**80,000 D**	**10 J**	<1,000
	5/03			**240**	**30**	**49**	**97**	**130**	<5	**226**	**160,000 D**	**230**	<1,000
	10/03			**68**	**28**	<5	**91**	**75 J**	**2 J**	<10	**92,000 D**	<260	<1,000
	6/04			**140 J**	**19 J**	**31 J**	**4 J**	**39 J**	<10 J	**111 J**	**82,000**	<5,200	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
TW-02RR[BE]	11/04	363.3	353.3	**18 J**	**4 J**	**4 J**	<10	**8 J**	<10	**16 J**	**7,100 D**	<5	<1,000
	6/05			**7.2 J**	**3.6**	**3.6 J**	<3.0	**2.1 J**	**0.3 J**	**9.6**	**8,400**	<50	<1,000
	11/05			**26 J**	**6**	**3.6**	<0.5	**4.1**	<0.4	**11**	**14,000**	<110 J	<1,000
	6/06			**16**	**4.4**	**2.7 J**	<3.0	**1.3 J**	<1.0	**6.7**	**10,000**	<100	<1,000
	9/06			NA	NA	NA	NA	NA	NA	NA	**7,600**	<52	NA
	11/06			**78 J**	**4.9**	**2.2 J**	<3.0	**1.4 J**	<1.0	**6.2**	**2,100**	<10 J	<500
	6/07			**17**	**5.5**	**4.0**	<3.0	**1.3 J**	<1.0	**8.8**	**6,800**	<100	<500
	8/07			NA	NA	NA	NA	NA	NA	NA	**4,000 J**	<20	NA
	11/07			**5.5**	**5.8**	**3.0 J**	<3.0	**1.2 J**	<1.0	**7.6**	**3,700**	<25	<500 J
	3/08			**6.4 [5.2]**	**4.5 J [2.3 J]**	**3.8 J [1.9 J]**	<3.0 [<3.0]	**1.3 J [0.7 J]**	<1.0 [<1.0]	**10 [4.8 J]**	**7,500 [5,400]**	<50 [<50]	<500 [<500]
	8/08			**9.0 [9.6]**	**4.4 [4.6]**	**2.3 J [2.4 J]**	<3.0 [<3.0]	**1.0 J [1.1 J]**	<1.0 [<1.0]	**6.7 [7.0]**	**9,600 [7,000]**	<71 [<56]	<500 [<500]
	3/09			<10 [<10]	**5.0 [4.6]**	**1.5 [1.6]**	<1.0 [<1.0]	**1.0 [1.0 J]**	<1.0 [<1.0]	**4.2 [4.1]**	**2,000 [1,600]**	<10 [<10]	<500 [<500]
	6/09			NA	NA	NA	NA	NA	NA	NA	**2,800**	<20	NA
	9/09			<10 [<10]	**4.3 [4.2]**	**1.2 [1.3]**	<1.0 [<1.0]	**0.79 J [0.81 J]**	<1.0 [<1.0]	**3.5 [3.6]**	**1,600 [1,500]**	<10 [<10]	**1,000 [1,200]**
	4/10			**9.5 J [12 J]**	**4.1 [4.0]**	**1.2 [1.2]**	<1.0 [<1.0]	**0.78 J [0.75 J]**	<1.0 [<1.0]	**4.2 [4.0]**	**2,800 J [3,100 J]**	<20 J [<20 J]	<500 [<500]
	10/10			<10 [<10]	**3.3 [3.0]**	**1.0 [0.91 J]**	<1.0 [<1.0]	**0.82 J [0.76 J]**	<1.0 [<1.0]	**3.6 [3.6]**	**760 [810]**	**<5.0 [2.2 J]**	<500 J [<500 J]
PZ-4D	11/89	350.8	345.9	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/90			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/91			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/92			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	8/95			<1,000	<5	<5	<5	<5	<5	<5	<5	**0.8 J**	<1,000
	10/95			NA	<5	<5	<5	<5	<5	<5	<5	<10	NA
	8/96			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<6	<12	<1,000
	2/99			<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<1,000
	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	4/02			<10	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	**0.5 J**	<1.0	<5.0	<1.0	<1.0	<1,000
	6/07			<5.0	<1.0	<4.0	<3	<5.0	<1.0	<5.0	<5.5	<1.1	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	**5.3 J**	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
PZ-4S	11/89	362.79	357.88	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/90			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/91			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/92			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	8/95			<1,000	<5	<5	<18	<5	<5	<5	<5	<10	<1,000
	10/95			NA	<5	<5	<5	<5	<5	<5	NA	NA	NA
	8/96			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	8/97			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/99			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Screen Elev. (ft. AMSL) Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
PZ-4S	6/99			<10 J	<10	<10	<10 J	<10	<10	<10	<10 J	<10 J	<1,000 J
(cont'd)	3/00			<10	<10	<10	<10	<10	<10	<10	<5	<10	<1,000 J
	3/01			<10	<10	<10	<10	<10	<10	<10	<10	**3 J**	<1,000
	4/02			<14	<5	<5	<5	<5	<5	<10	**8** (<5)[F]	<5 (<5)[F]	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	5/03			<12	<5	<5	<5	<5	<5	<5	<5	<5	<1,000
	6/04			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	6/06			<5.0	<1.0	<4.0	<3.0	**0.6 J**	<1.0	<5.0	<1.0	<1.0	<1,000
	6/07			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.5	<1.1	<500
	3/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	3/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	**17**	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
PZ-5D[L]	11/89	353.5	348.6	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	12/94			<10	<5	<5	<5	<5	<5	<5	<5	<10	<200
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	9/98			<10	<10	<10	<12	<10	<10	<10	<5[H]	<10	<1,000
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<10	<1,000
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	9/01			<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	**46**	<5	<1,000
	6/04 [J]			<25	<10	<10	<10	<10	<10	<20	<5	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	**0.7 J**	<1.0	<5.0	<1.0	<1.0 J	<1,000
	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
	11/07			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.1	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
PZ-5S[KL]	11/89	361.42	356.52	<100	<1	<1	<1	<1	<1	<1	<11	<11	<1,000
	12/94			<10	<5	<5	<5	<5	<5	<5	<5	<10	<200
	2/96			<1,000	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	2/97			**5 J**	<10	<10	<10	<10	<10	<10	<5	<10	<1,000
	9/98			<10	<10	<10	<12	<10	<10	<10	<5[H]	<10	<1,000
	6/99			<10 J	<10	<10	<10 J	<10	<10	<10	<10 J	<10 J	<1,000
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<10	<1,000 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<1,000 J
	9/01			**7 J**	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
	10/02			<25 J	<10	<10	<10	<10	<10	<20 J	<5[G]	<5[G]	<1,000
	10/03			<12	<5	<5	<5	<5	<5	<10	<5	<5	<1,000
	11/04			--	--	--	--	--	--	--	<5	<5	<1,000
	6/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.1	<1.1	<1,000
	11/05			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<1,000

See Notes on Page 20.

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	5	5	5	1	NS
PZ-5S[KL]	11/06			R	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<1.0	<1.0 J	<500
(cont'd)	11/07			<5.0 J	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.0	<0.5	<500
	8/08			<5.0	<1.0	<4.0	<3.0	<5.0	<1.0	<5.0	<5.3	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
PZ-8S[I]	9/98	362.6	357.7	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1,000
PZ-11D[D]	11/89	352.09	347.19	<100	<1	<1	<1	<1	<1	<1	<11	<11	<1,000
PZ-11S[D]	11/89	359.09	354.19	<100	<1	<1	<1	<1	<1	<1	<11	<11	<1,000
PZ-12D[D]	11/89	350	345.1	<100	<1	<1	<1	<1	<1	<1	<53	<53	<1,000
	11/90			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/91			<100	<1	<1	<1	<1	<1	<1	<10	<10	**3**
	11/92			<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
PZ-12S[D]	11/89	360	355.1	<100	<1	<1	<1	<1	<1	<1	<10	<10	<1,000
	11/90			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
	11/91			<100	<1	<1	**5**	<1	<1	<3	<10	<10	**6**
	11/92			<100	<1	<1	<1	<1	<1	<3	<10	<10	<1,000
PZ-13D[C]	11/89	349.4	344.4	<100	<1	<1	<1	<1	<1	<1	<11	<11	<1,000
PZ-13S[C]	11/89	359.5	354.5	<100	<1	<1	<1	2	<1	**2**	<11	<11	<1,000

See Notes on Page 20.

General Notes:

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

Superscript Notes:

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

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

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

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

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

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

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

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

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

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

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

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

Abbreviations:

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

Analytical Qualifiers:

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