Long-Term Monitoring Data Summary Report May/November 2002

Watervliet Arsenal
Watervliet, New York

Baltimore Corps of Engineers
Baltimore, Maryland

Prepared by:

Malcolm Pirnie, Inc.
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US Army Corps of Engineers

September 2003
0285911

DEPARTMENT OF THE ARMY
WATERVLIET ARSENAL
1 Buffington Street
WATERVLIET, NY 12189-4000

REPLY TO ATTENTION OF:

Facilities Engineering Division

December 12, 2003

Mr. Raymond Basso
U.S. Environmental Protection Agency
Chief – RCRA Programs Branch
290 Broadway, 22nd Floor
New York, New York 10007

Re: Long-Term Monitoring Data Summary Report
May 2003 Monitoring Event
Watervliet Arsenal, Watervliet, New York

Dear Mr. Basso:

Enclosed please find one copy of the *Long Term Monitoring Data Summary Report: May 2003* for the Watervliet Arsenal, Watervliet, New York

Please contact Ms. JoAnn Kellogg at (518) 266-5286 or Mr. Grant Anderson at (410) 962-6645 if you have any questions concerning this Report.

THOMAS E. POND
Acting Chief, Facility Engineering

Attachments

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1.0 INTRODUCTION

1.1 PURPOSE

Malcolm Pirnie, Inc. (Malcolm Pirnie) has been retained by the Baltimore District of the US Army Corps of Engineers (USACE) to implement the approved Long-Term Monitoring Plan (LTM Plan) for the Watervliet Arsenal (WVA) in Watervliet, New York, dated May 1999. Long-term monitoring is being conducted at the WVA in support of various RCRA Facility Investigations (RFIs), Corrective Measures Studies (CMSs), and Interim Corrective Measures (ICMs) that have been conducted at the WVA under a United States Environmental Protection Agency (USEPA) Administrative Order on Consent (Docket No. II RCRA-3008(h)-93-0210). In accordance with the LTM Plan, the purpose of this report is to summarize the data collected during the May/November 2002 monitoring event at the WVA.

1.2 FACILITY DESCRIPTION

The Watervliet Arsenal encompasses approximately 140 acres in and around the City of Watervliet, New York, approximately 3.5 miles northeast of the City of Albany boundary (Figure 1-1). To the east of WVA, Broadway Street and six-lane interstate highway (I-787) separate the WVA from the Hudson River. To the west, WVA extends beyond the limits of the City of Watervliet into the Town of Colonie. Residential areas border WVA to the north and south.

The WVA consists of two primary areas: (1) The "Main Manufacturing Area" (MMA), where manufacturing and administrative operations occur, comprises about 125 acres, and, (2) The "Siberia Area" (SA), which is chiefly used for the storage of raw and hazardous materials, comprises about 15 acres. These areas are shown on Figure 1-2.

1.3 PREVIOUS AND ONGOING STUDIES

1.3.1 Main Manufacturing Area

Several environmental studies have been conducted at the MMA. The most comprehensive investigation, an RFI, was conducted by MPI and Louis Berger &

Associates, Inc. from 1995 to 1998. Previous investigations are summarized in the final MMA RFI dated August 1999. Two ICMs involving in-situ groundwater remedial techniques are currently being conducted at the MMA in the area of Buildings 25 and 40.

1.3.2 Siberia Area

An RFI, was conducted by Malcolm Pirnie at the Siberia Area from 1994 to 1995. Additional investigations were completed as part of a Corrective Measures Study (CMS) completed by Malcolm Pirnie in 1998. Previous investigations are summarized in the Final SA RFI dated December 1997. There are three ICMs (a full-scale landfarming pilot study, full-scale permeable reactive wall pilot study, and bedrock chemical oxidation pilot study) currently underway at the SA.

1.4 GENERALIZED SITE GEOLOGY AND HYDROGEOLOGY

1.4.1 Main Manufacturing Area

The major overburden unit identified in the Main Manufacturing Area has been described as fill, consisting of brown or dark gray silty sand with angular gravel. The fill material is the only unit consistently found throughout the site, with the thickest amount of fill being in the eastern portion of the MMA. Underlying the fill are the following native overburden units: a fine grained alluvium, a coarser alluvium, and glacial till. These units are not present in all areas of the site.

The bedrock underlying the site is a black, medium-hard laminated shale, showing some characteristics of minor metamorphism. This shale has been identified as part of the Snake Hill Formation. The bedrock can be described in three ways based on the degree of weathering observed. The first is an extremely weathered zone approximately four feet thick. This extremely weathered bedrock unit was encountered at depths ranging from near ground surface to approximately 20 feet below ground surface (bgs). Beneath this extremely weathered bedrock is a zone of less weathered shale showing minimal competency. Competent bedrock is generally encountered at depths ranging from approximately 1.5 feet bgs to 18 feet bgs.

The majority of the MMA is relatively impervious to rainfall except at the residential and recreational areas of the northeastern portion of the WVA. Due to the

shallow depth of bedrock and the limited amount of overburden in several areas of WVA, groundwater is encountered within different geologic units (overburden, weathered bedrock, or bedrock) depending on the location. For instance, groundwater is encountered in the bedrock at the western end of WVA (topographic high and local recharge area); progressing eastward towards the Hudson River, groundwater is encountered in the weathered bedrock and then in the overburden deposits.

Groundwater flow in bedrock in the MMA is primarily controlled by the degree of fracturing within the bedrock itself and in the local recharge area which is coincident with a topographic high along a bedrock ridge in the central portion of the facility. The most prominent feature on the potentiometric surface is a groundwater divide trending approximately north to south through Buildings 135 and 130. This feature appears to mirror the bedrock ridge. The primary discharge area for groundwater from the Main Manufacturing Area is the Hudson River which is located to the east of WVA. For the area surrounding Building 25, groundwater in each of the hydrostratigraphic units flows from west to east towards the Hudson River, with a component of flow to the northeast. West of the groundwater divide, shallow groundwater flow discharges towards the Kromma Kill.

1.4.2 Siberia Area

According to the "Surficial Geologic Map of New York - Hudson-Mohawk Sheet, 1987", a majority of the SA is underlain by recent alluvial deposits. These are defined as fine sand and gravel deposits overlain by silt. The SA, which is at a lower elevation than the main manufacturing area of the WVA located to the east, is generally underlain by a layer of fill (sand, shale fragments, slag, cinders, brick, wire, wood and concrete). Alluvium, lenses of peat, and lacustrine clay deposits were encountered beneath the layer of fill material. Bedrock beneath the SA is the Snake Hill Formation, which is comprised mainly of dark gray shale. During the SA investigation, highly weathered shale was encountered from approximately 3.5 feet bgs to 31 feet bgs. In general, competent bedrock was encountered at approximately 12 feet bgs. The upper portion of the competent bedrock was found to be fissile and highly fractured with 45 to 60 degree bedding planes.

Groundwater flows generally to the north-northwest in the NE Quadrant of the SA, and generally to the west across the remainder of the SA. The water table responds quickly to recharge events, and during times of low precipitation the water table may be present in the shale bedrock over portions of the SA. However, on the average, the water table is encountered in the overburden. Surface water in the SA that does not infiltrate is generally directed into the existing storm sewers. The storm sewer is connected to the City of Watervliet storm sewer network.

2.0 FIELD SAMPLING

2.1 SAMPLING DATES AND METHODS

Monitoring of all wells included in the LTM Plan, with the exception of reactive wall monitoring wells SA-MW-45 through SA-MW-77, was conducted at the WVA from May 13, 2002 through May 30, 2002. Sampling of the reactive wall monitoring wells was conducted from November 5, 2002 through November 25, 2002. With the exception of the reactive wall monitoring wells, groundwater sampling was conducted according to the USEPA protocol for Low Stress (Low Flow) Purging and Sampling (USEPA, 1998) using dedicated, permanent, bladder pumps installed in each of the wells included in the LTM Plan. In accordance with the USEPA letter dated September 20, 2002 (USEPA, 2002), the reactive wall monitoring wells were sampled using Passive Diffusion Bag (PDB) samplers. Water levels were measured in all wells (including those not included in the LTM Plan) at the site prior to groundwater sampling. In accordance with the LTM Plan, and with the exception of the above mentioned reactive wall wells, groundwater samples collected from all locations were analyzed by Severn Trent Laboratories (STL), a New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP)-certified laboratory, for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), dissolved sulfide, dissolved organic carbon (DOC), and dissolved gases. Samples collected from reactive wall wells were analyzed for VOCs only. Additional laboratory analyses, including RCRA-listed metals, were also performed at select locations listed in the LTM Plan. Field parameters, consisting of temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity were measured during purging using a Horiba U-22 water quality meter equipped with a flow-through cell. Additional field parameters, consisting of ferrous iron, nitrate, nitrite, sulfate, chloride, and alkalinity, were analyzed at each location (excluding reactive wall wells) using Hach®-brand field analysis kits. Sampling methods, specific analytical methods, and sampling locations are discussed in detail in the LTM Plan. Field purge log forms for the May/November 2002 monitoring event are presented in Appendix A.

2.2 SAMPLING SUMMARY

In accordance with the LTM Plan, a total of 53 MMA wells and 59 SA wells (including four sewer monitoring points) were scheduled for sampling during the 2002 monitoring event. However, due to insufficient water in the well at the time of sampling and/or insufficient recharge within 24-hours after purging to dryness, several wells either were not sampled or were sampled for limited analytical parameters during the monitoring event. Table 2-1 summarizes the monitoring wells that were not sampled for all or some parameters during the May/November 2002 monitoring event. As shown in Table 2-1, a total of five monitoring wells in the MMA and five wells in the SA were either not sampled, or not sampled for all parameters, during the May/November 2002 monitoring event. Four sewer bedding monitoring points (WVA-SA-STS-3, WVA-SA-STS-5, WVA-SA-STS-6, and WVA-SA-SNS-6) were scheduled to be sampled concurrently with the reactive wall monitoring wells in November 2002. However, these points were inaccessible during the time of sampling due to snow/ice coverage and material from soil remediation activities. The sewer bedding monitoring points will be sampled during the next monitoring event. Monitoring well MW-GTI-1 was covered by gravel and could not be located during the sampling event. This well will be uncovered and sampled during the next monitoring event. As noted in the table, monitoring wells AW-MW-34 and AW-MW-59, which are located in the Building 40 potassium permanganate chemical oxidation pilot area, contained potassium permanganate ($KMnO_4$) at the time of sampling. As such these wells were sampled only for VOCs. In accordance with the *Work Plan for the Building 25 and Building 40 Pilot Studies* (Malcolm Pirnie, 2002), these samples were quenched with sodium bisulfite solution to consume the permanganate prior to analysis.

3.0 DATA VALIDATION

In accordance with the LTM Plan, data validation was performed for 10 percent of the samples collected during the May/November 2002 LTM event. All data were classified as usable after review in accordance with the methodologies specified in the NYSDEC Guidance for the Development of Data Usability Summary Reports (6/99). The data validation report is contained in Appendix B.

3.1 VOCs

All sample holding times were met for each of the five sample delivery groups (SDGs). Methylene chloride and methyl ethyl ketone (MEK) were detected in method blanks from three of the five SDGs. These are common laboratory contaminants and, since none of the concentrations in the samples exceeded ten times that in the blank, all associated data were qualified as not detected, "U". Tetrachloroethene was also detected in method blanks for one of the SDGs. None of these samples contained concentrations of tetrachloroethene greater than five times of that in the blank, and thus, all associated data was qualified as non-detect, "U". Several compounds were qualified as estimated, "J".

3.2 SVOCs

All sample holding times were met for each of the five SDGs. No compounds were detected in any of the method blanks included with the SDGs. Several target compounds were qualified as estimated, "J".

4.0 SAMPLING RESULTS

4.1 GROUNDWATER FLOW

Groundwater elevations measured prior to sampling in May 2002 are presented in Table 4-1. Groundwater elevations measured during previous LTM events are also summarized in Table 3-1.

4.1.1 Main Manufacturing Area

A potentiometric contour map for the first water bearing unit at the MMA in May 2002 is presented in Appendix C. As shown in Appendix C, groundwater flow patterns at the MMA in May 2002 are similar to those documented during the MMA RFI and previous LTM events. Figures 4-1 and 4-2 present hydrographs summarizing groundwater elevations in overburden and bedrock monitoring wells located around the perimeter of the MMA during the LTM events conducted to date. As shown in these figures, groundwater levels at the MMA do not vary significantly from season to season. These data are also consistent with that documented during the MMA RFI.

4.1.2 Siberia Area

Potentiometric contour maps for the overburden and bedrock units at the SA in May 2002 are also presented in Appendix C. As shown on the maps, groundwater flow patterns in both the overburden and bedrock were similar to those observed during previous monitoring events. The influence of the permeable reactive walls on the overburden potentiometric surface is evident on the overburden potentiometric contour map. Although the reactive walls cause local anomalies, the groundwater flow paths are generally perpendicular to the permeable reactive walls, indicating that groundwater is being directed through both reactive walls. Groundwater hydrographs for the overburden monitoring wells located along the perimeter of the SA and all the bedrock groundwater monitoring wells in the SA are presented on Figures 4-3 and 4-4, respectively. Figure 4-3 shows that, consistent with the information presented in the SA RFI, overburden groundwater elevations in many wells vary from season to season. As discussed in previous reports, the increased groundwater elevation in bedrock monitoring well MW-

GTI-4 is likely the result of groundwater mounding in the area of the landfarming pilot plot.

4.2 MAIN MANUFACTURING AREA ANALYTICAL RESULTS

Analytical results for MMA long-term monitoring groundwater samples are summarized in Table 4-2 and 4-3. Analytical results for monitoring wells sampled during the MMA RFI are also included in Table 4-2 for comparison. Summary tables presenting results for each MMA well are presented in Appendix D.

4.2.1 VOCs and SVOCs

Table 4-2 summarizes exceedences of NYSDEC Class GA standards for groundwater samples collected from the MMA LTM monitoring wells. As shown in Table 4-2, NYSDEC Class GA standards for VOCs were exceeded in 16 of the 53 MMA LTM monitoring wells during the May 2002 monitoring event. NYSDEC Class GA standards for SVOCs were not exceeded in any of the samples collected from the 53 MMA long-term monitoring wells during the May 2002 monitoring event. Consistent with results from previous monitoring events, VOC concentrations in MMA groundwater samples exceeded Class GA standards in four general areas:

- East of Building 40;
- East of Building 25;
- In the central portion of the MMA in the area of Building 121; and
- East of Building 20.

Table 4-3 shows that the VOCs most frequently detected (greater than 15 percent detections) in MMA groundwater samples consisted of the following compounds.

- cis-1,2-dichloroethene;
- trichloroethene;
- tetrachloroethene;
- vinyl chloride; and
- 2-butanone.

Methylene chloride, which was the most frequently detected VOC in MMA groundwater samples (approximately 56 percent of all samples), is a common laboratory contaminant.

Analytical results for methylene chloride were "B"-qualified (i.e., also detected in laboratory blank) for many of the samples.

The most frequently detected SVOCs in MMA groundwater samples consisted of the following compounds.

- bis (2-ethylhexyl) phthalate;
- di-n-butyl phthalate;
- diethylphthalate; and
- di-n-octylphthalate.

4.2.2 Data Trends

Due to the spatial separation between the areas of concern in the MMA long-term monitoring program, analysis of trends in concentrations of parameters over the entire MMA is not feasible. However, trends in total contaminant concentrations in samples collected from representative monitoring wells in the areas of concern discussed above have been utilized to evaluate variations in groundwater conditions. Figure 4-5 presents trends in total VOC concentrations in groundwater samples collected from the following representative wells located in the listed areas of concern.

- AW-MW-34 and AW-MW-51: Building 40 Area
- 86EM-SP-1A and 25-MW-3: Building 25 Area
- MW-121N and MW-121S: Building 121 Area
- AW-MW-35: Building 20 Area

As shown on Figure 4-5, generally decreasing trends in total VOC concentrations are evident in samples collected from monitoring wells 86EM-SP-1A, WVA-25-MW-3, WVA-AW-MW-35, and WVA-MW-121S. The decrease at 86EM-SP-1A and WVA-25-MW-3 may be associated with the Hydrogen-Release Compound (HRC©) pilot study at Building 25. The decrease in total VOC concentrations in the sample collected from WVA-AW-MW-34 in May 2002 is due to the presence of potassium permanganate in the well at the time of sampling. Total VOC concentrations in samples collected from monitoring well WVA-AW-MW-51 have been variable throughout long-term monitoring; however, the VOC concentration detected in the May 2002 sample was the highest detected at this location during long-term monitoring. As shown on Figure 4-6,

SVOC concentrations in samples collected from representative MMA monitoring wells have remained stable at low concentrations throughout long-term monitoring.

4.3 SIBERIA AREA ANALYTICAL RESULTS

4.3.1 VOCs and SVOCs

Table 4-4 summarizes exceedences of NYSDEC Class GA standards for groundwater samples collected from SA monitoring wells during the LTM. Analytical results for monitoring wells sampled during the Siberia RFI are also included in Table 4-4 for comparison. As shown in Table 3-4, NYSDEC Class GA standards for VOCs were exceeded in groundwater samples from eight of the 55 SA long-term monitoring wells during the May/November 2002 monitoring event. NYSDEC Class GA standards for SVOCs were not exceeded in groundwater samples collected from any of the 55 SA long-term monitoring wells during the May 2002 event. Consistent with results from previous monitoring events, VOC concentrations in SA groundwater samples generally exceeded Class GA standards only in the area of the former burn pit and in monitoring wells upgradient of the current reactive walls (northeast quadrant).

As shown in Table 4-5, the VOCs most frequently detected (greater than 15 percent detections) in SA groundwater samples consisted of the following compounds.

- cis-1,2-dichloroethene;
- vinyl chloride; and
- 2-butanone.

Similar to the results for MMA samples, methylene chloride was the most frequently detected VOC in SA groundwater samples (approximately 46 percent of all samples). However, as discussed previously, analytical results for methylene chloride were "B"-qualified (i.e., also detected in laboratory blank) for many of the samples.

The most frequently detected SVOCs in SA groundwater samples consisted of the following compounds.

- bis (2-ethylhexyl) phthalate;
- di-n-butyl phthalate;
- diethylphthalate; and
- di-n-octylphthalate.

4.3.2 Reactive Wall Sampling

As discussed in Section 2.1, the reactive wall monitoring wells (SA-MW-45 through –77) were sampled using PDB samplers in accordance with the USEPA letter dated September 20, 2002. The use of the PDB samplers was requested by the WVA due to sampling difficulties resulting from lack of recharge in the reactive wall monitoring wells. Table 3-6 compares the results for samples collected the reactive wall monitoring wells using the PDB samplers in November 2002 to samples collected from the reactive wall monitoring wells using bladder pumps in May 2001. As shown in Table 4-6, total VOC concentrations in the samples collected using the PDB samplers were similar to those obtained using bladder pumps.

4.3.3 Data Trends

Figures 4-7 and 4-8 present total chlorinated VOC concentrations in upgradient and downgradient reactive wall monitoring wells located around the two reactive walls located in the northeast quadrant of the SA. As shown in these figures, total chlorinated VOC concentrations in both upgradient and downgradient reactive wall monitoring wells have decreased since the beginning of long-term monitoring. These trends indicate that the ICMs at the former burn pit and the reactive wall are successfully reducing total chlorinated VOC concentrations upgradient and downgradient of the reactive wall, respectively.

Total SVOC concentrations in monitoring well GTI-1 (Figure 4-9) have remained at low or non-detectable concentrations. Total SVOC concentrations in monitoring well SA-MW-32 have decreased significantly since the beginning of LTM. The likely reason for the reduction in SVOC concentrations at this well is twofold: 1) SA-MW-32 was located in the former burn pit area and was removed and relocated during excavation of the burn pit, and 2) the removal of the material in the burn pit, which contained high concentrations of both VOCs and SVOCs, has likely caused a reduction in the total SVOC concentration in the vicinity of the former burn pit.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The following conclusions can be drawn based on the data generated during the five long-term monitoring events conducted to date.

1. Groundwater flow in the MMA is consistent with that documented during previous monitoring events and the MMA RFI. Overall groundwater flow in the SA is consistent with that documented during previous LTM events and, although affected by the construction of the landfarming pilot plot, is similar to that documented in the SA RFI.
2. In general, VOC concentrations in groundwater in the MMA at buildings 25, 121, and 20 are stable or decreasing. VOC concentrations in groundwater at buildings 25 and 40 are variable. VOC concentrations in groundwater in the area of the former burn pit and current permeable reactive walls in the SA are decreasing. SVOC concentrations have not exceeded NYSDEC Class GA standards in samples collected from any of the monitoring wells sampled during the last two monitoring events.
3. Analytical results for samples collected from the Siberia reactive wall monitoring wells in November 2002 using PDB samplers were, in general similar to those for samples collected from the same wells during the May 2001 event using bladder pumps and low-flow purging techniques. These data indicate that the PDB samplers are suitable for monitoring VOCs in the reactive wall area.

5.2 RECOMMENDATIONS

The following recommendations are made based on the results of the long-term monitoring from August 1999 through November 2002.

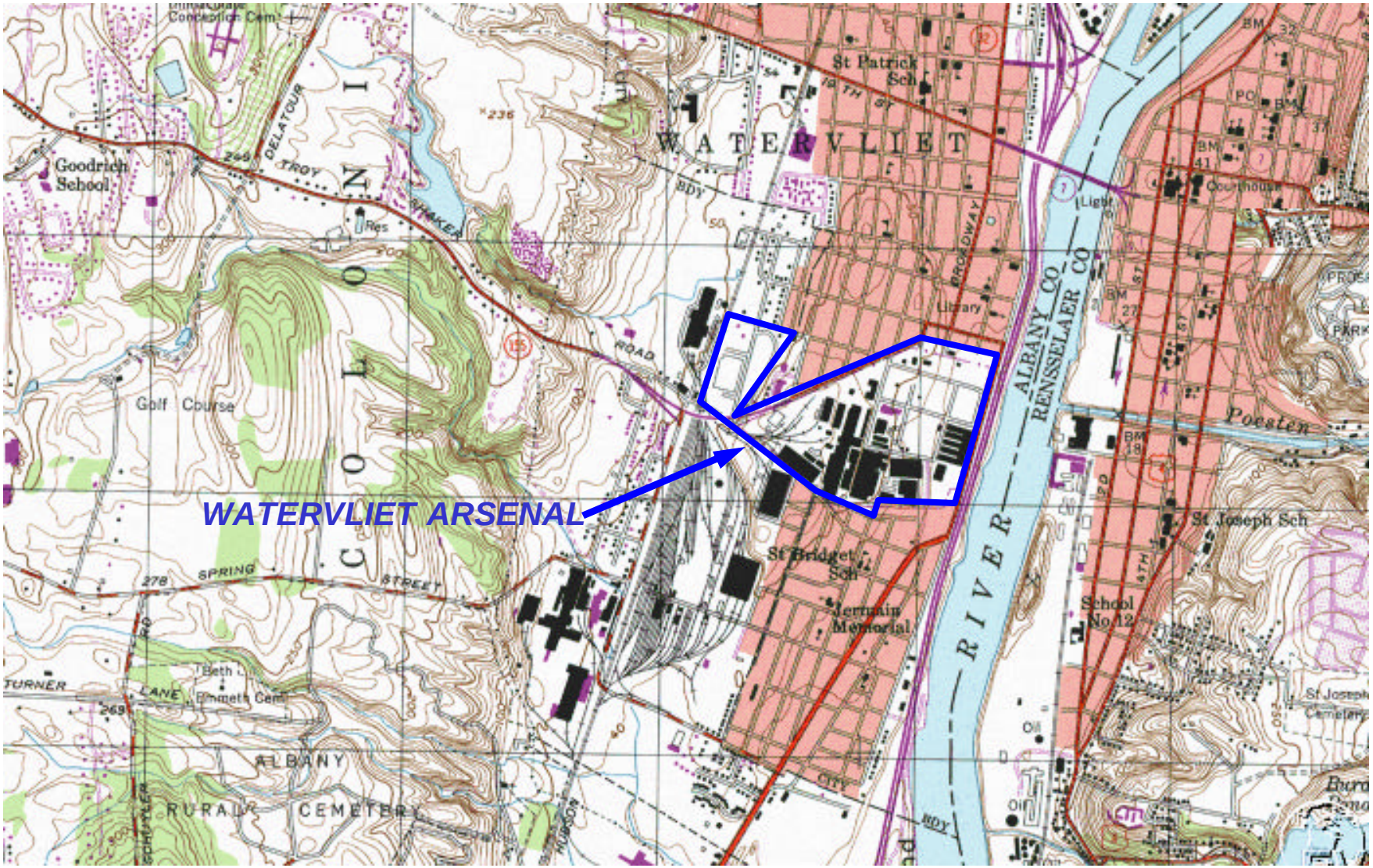
1. Based on the results of the November 2002 monitoring, the use of PDB samplers for monitoring of the reactive wall monitoring wells should be continued.
2. As shown in Table 3-2, SVOCs have not been detected at concentrations greater than NYSDEC Class GA standards in most of the MMA LTM monitoring wells since sampling began in September 1995. Given this, it is

recommended that sampling for SVOCs be discontinued at all MMA LTM monitoring wells with the exception of the following monitoring wells:

- WVA-MMA-MW-23
- WVA-MMA-MW-24
- WVA-MMA-MW-43
- WVA-MMA-35-MW-8
- WVA-MMA-135-MW-4
- WVA-MMA-PW-1
- WVA-MMA-110
- WVA-MMA-EM-SP-13

These wells were selected since they fit one or more of the following criteria:

1. Monitoring wells where Light Non-Aqueous Phase Liquids (LNAPL) or sheens are/have been present.
2. Monitoring wells located in an area where lubricating oils are contaminants of concern.
3. Monitoring wells where SVOCs have consistently been detected at concentrations greater than NYSDEC Class GA standards in the past.



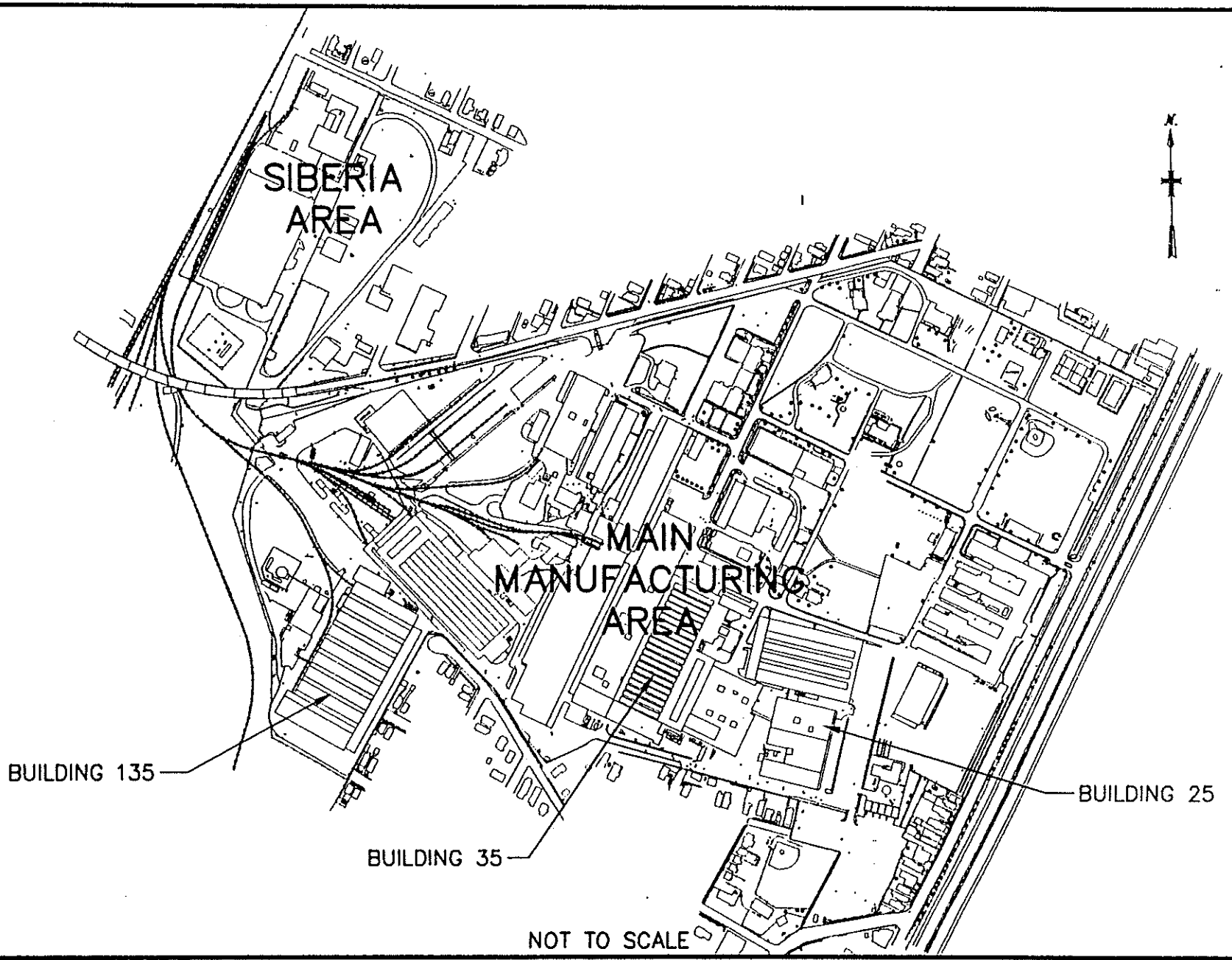
SOURCE: U.S.G.S 7.5 MIN. TROY SOUTH QUADRANGLE

US Army Corps of Engineers
Baltimore District

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

SITE LOCATION

FIGURE 1-1



US Army Corps of Engineers

MAIN MANUFACTURING AREA
SITE PLAN

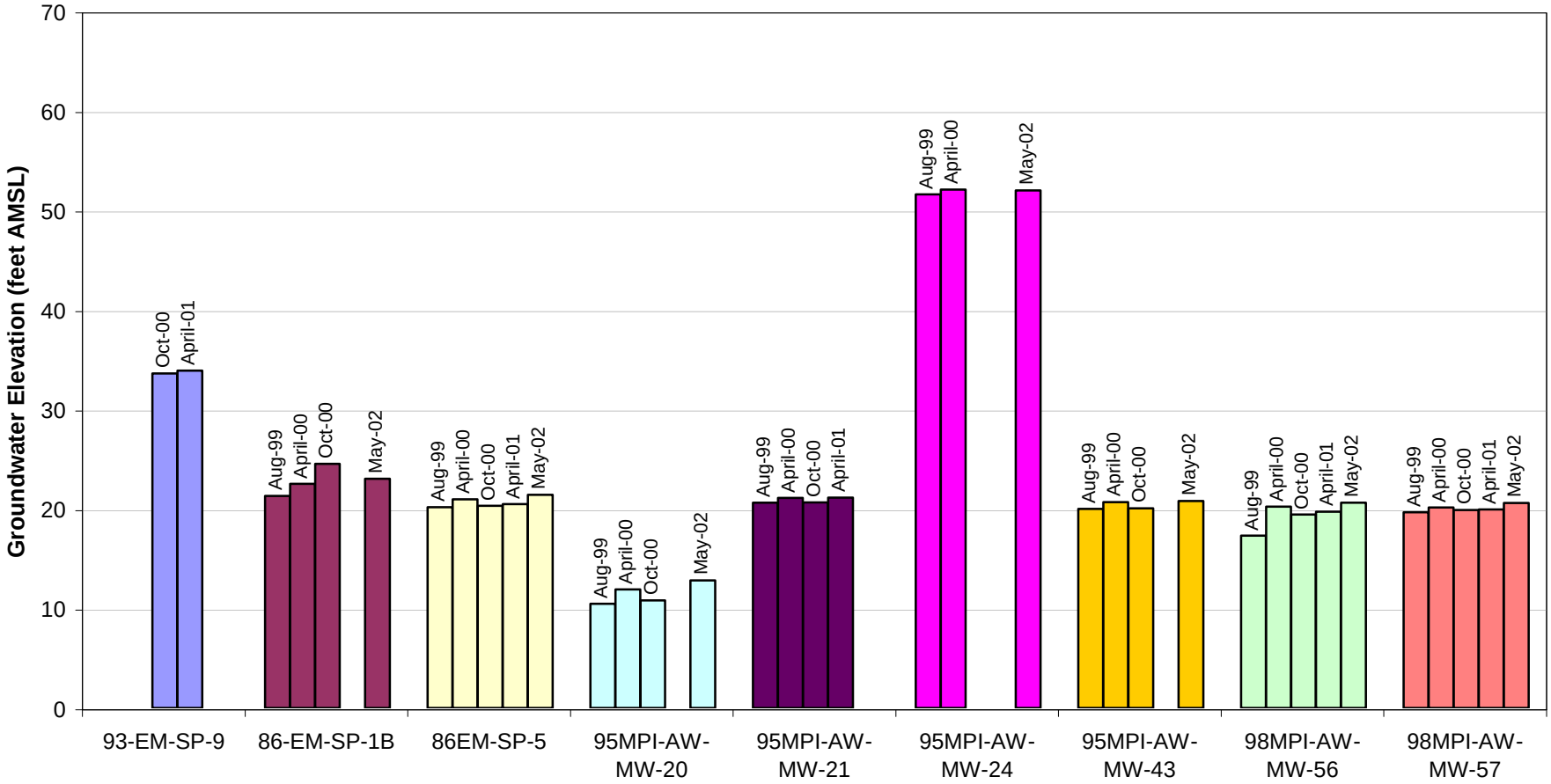
WATERVLIET ARSENAL
USACE CONTRACT NO. DACA31-94-D-0017

MALCOLM PIRNIE, INC.

FIGURE 1-2

XREF: I:\ACAD\PROJ\0285\DRAFT FINAL\BASEWDF

Figure 4-1
Groundwater Elevation in Perimeter Overburden Monitoring Wells
Long Term Monitoring
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York



Note: Blank space indicates well was dry at time of measurement

Figure 4-2
Groundwater Elevation in Perimeter Bedrock Monitoring Wells
Long Term Monitoring
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York

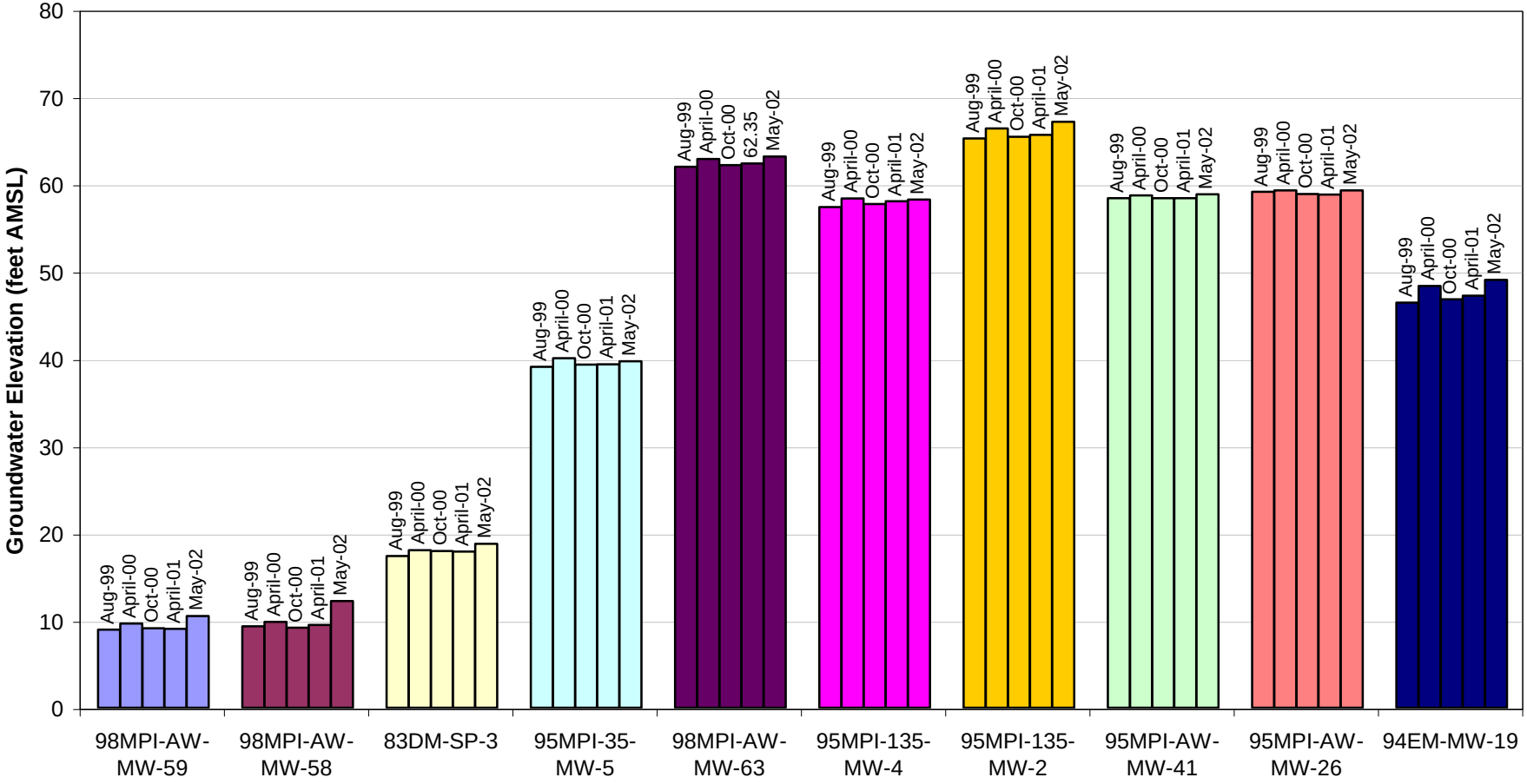
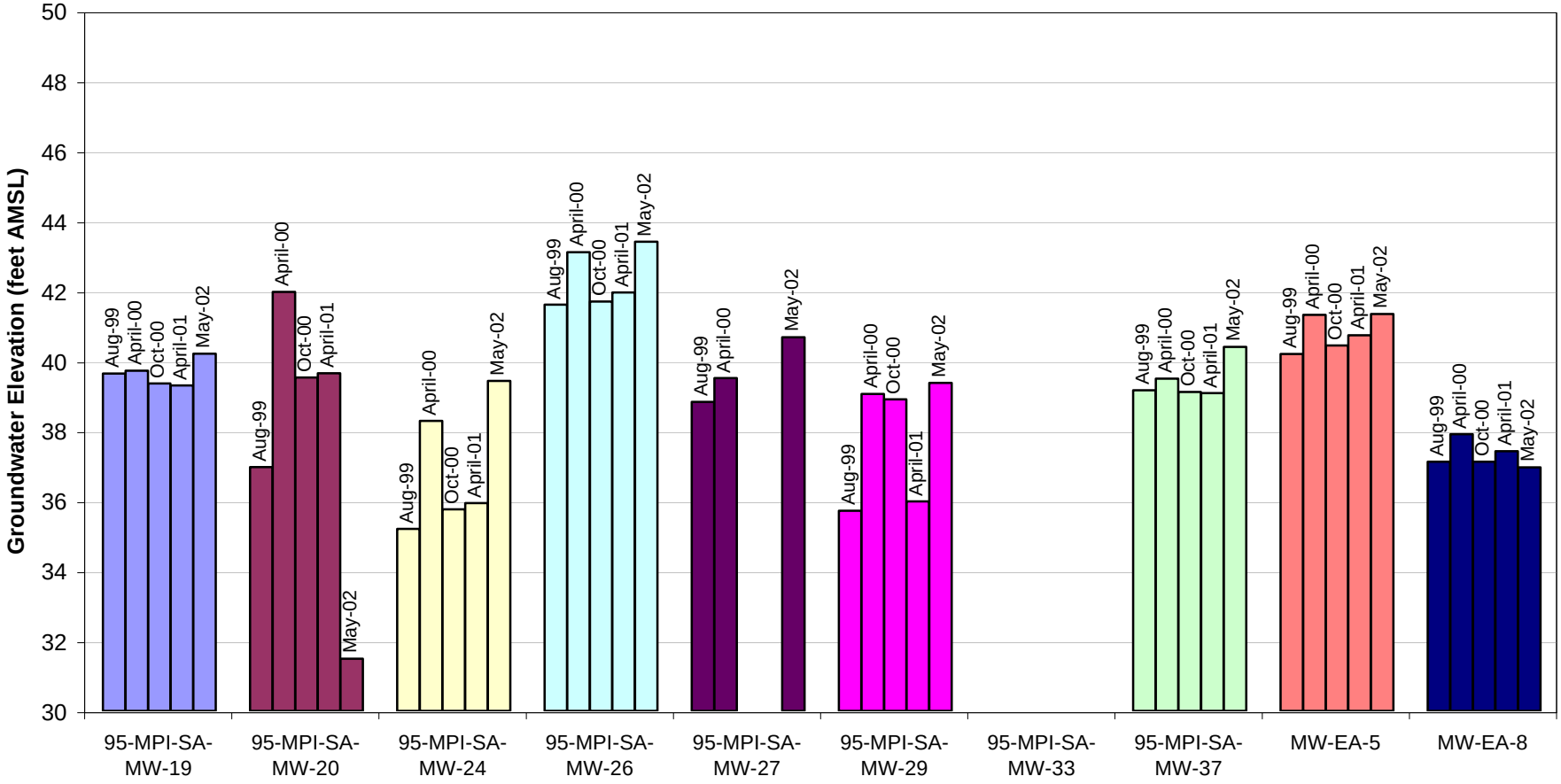
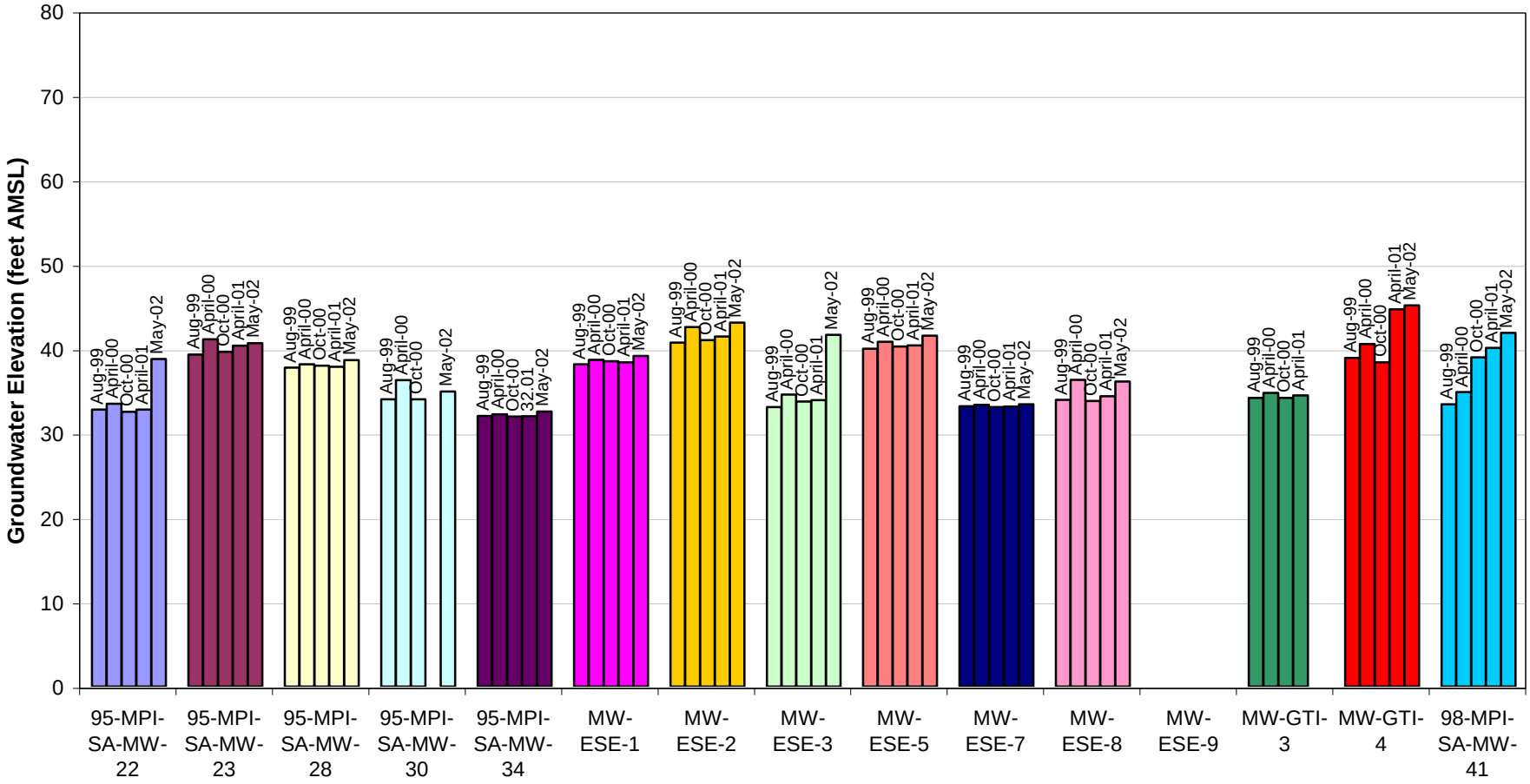


Figure 4-3
Groundwater Elevation in Perimeter Overburden Monitoring Wells
Long Term Monitoring
Siberia Area
Watervliet Arsenal, Watervliet, New York



Note: Blank space indicates well was dry at time of measurement

Figure 4-4
Groundwater Elevation in Bedrock Monitoring Wells
Long Term Monitoring
Siberia Area
Watervliet Arsenal, Watervliet, New York



Note: Blank space indicates well was dry at time of measurement

Figure 4-5
Trends in Total VOC Concentration in Areas of Concern
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York

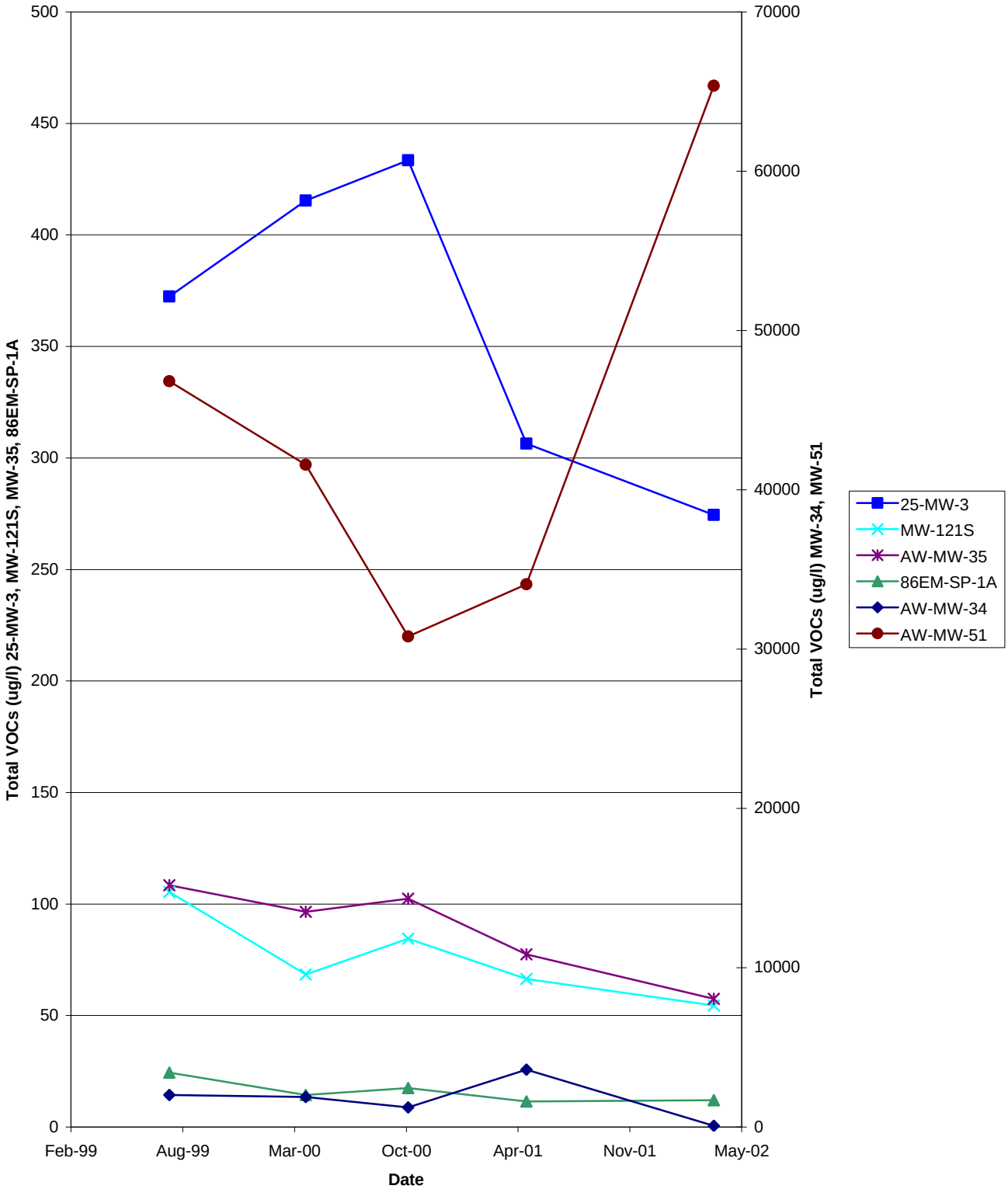


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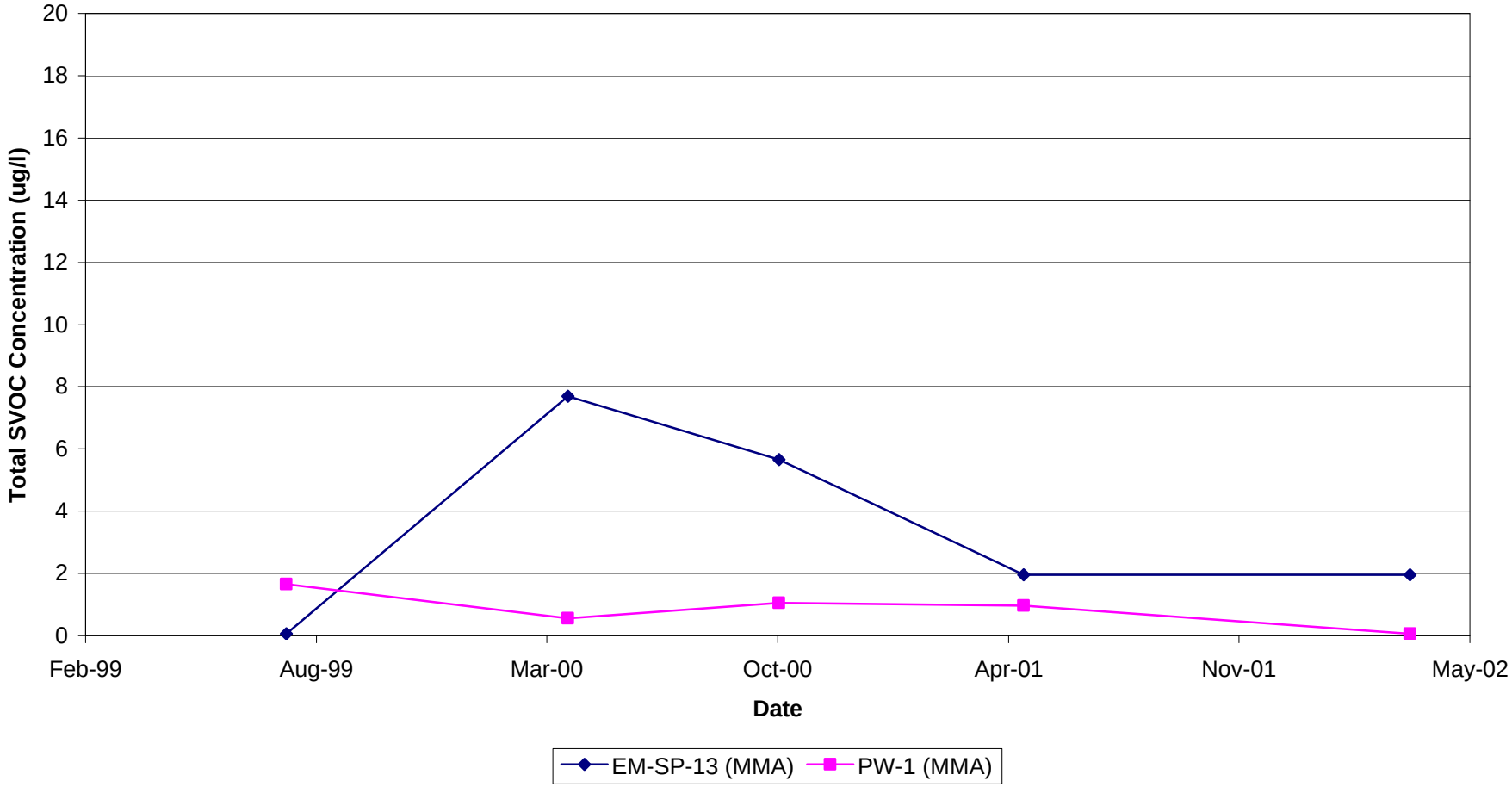
Figure 4-6
Trends in Total SVOC Concentration in Areas of Concern
Main Manufacturing Area
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York



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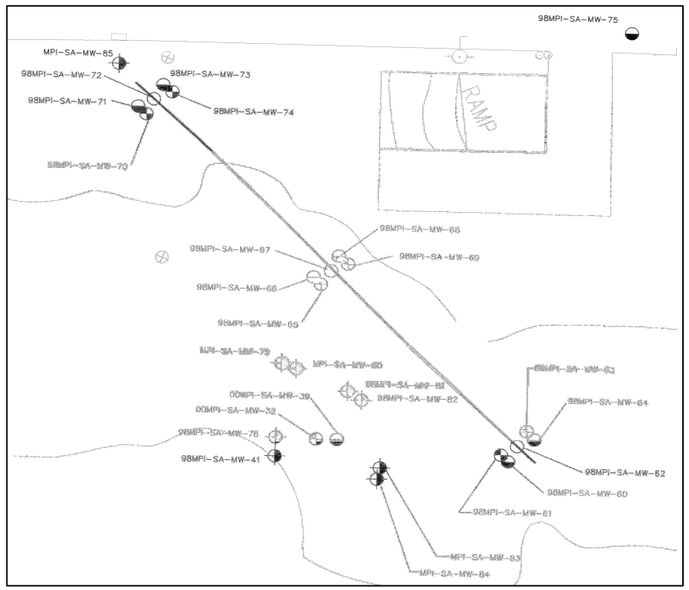


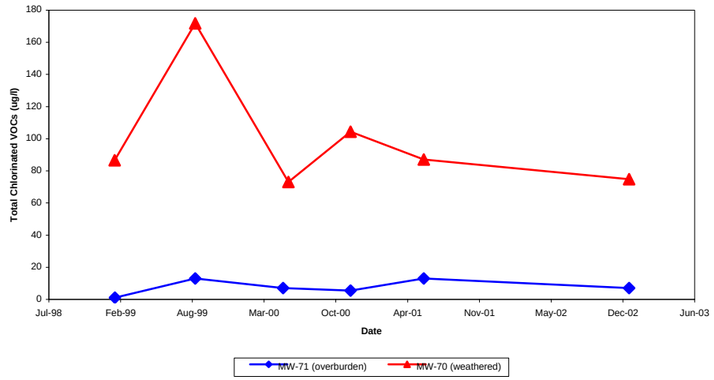
LEGEND

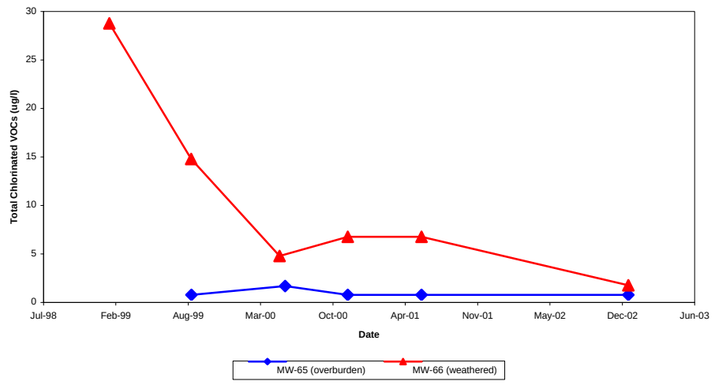
Weathered Bedrock Monitoring Well

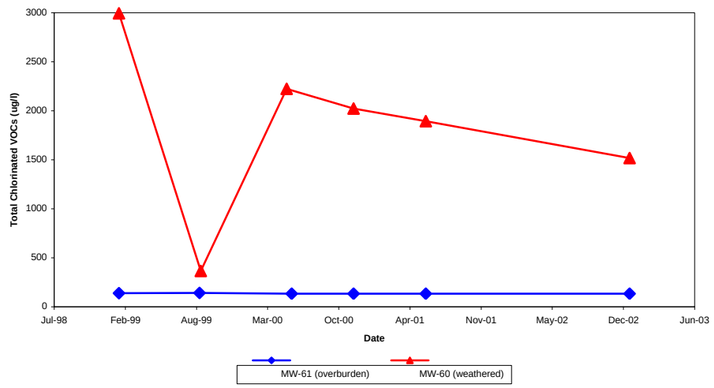
Overburden Monitoring Well

Note: Vertical scales are not the same.

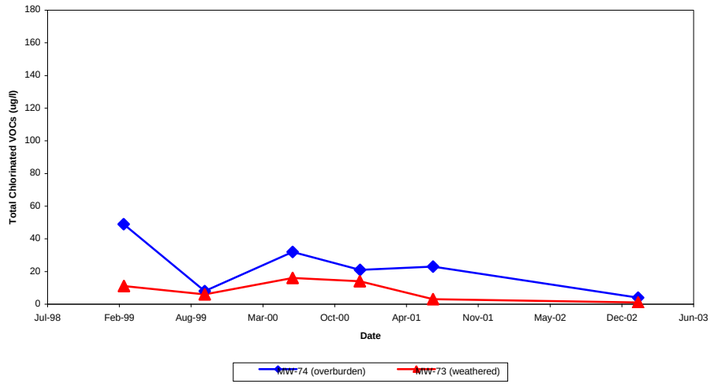
UPGRADIENT

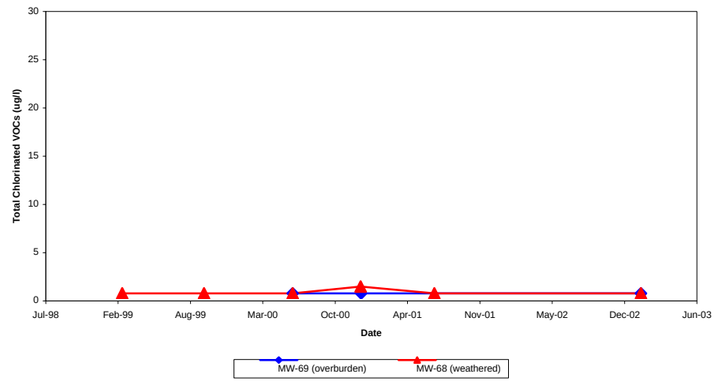


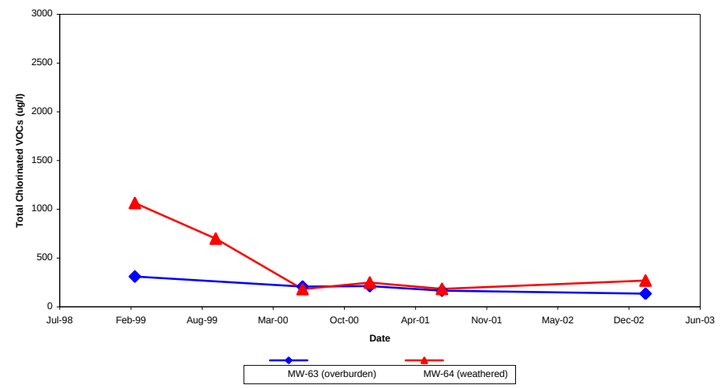




DOWN GRADIENT







US Army Corps of Engineers
Baltimore District

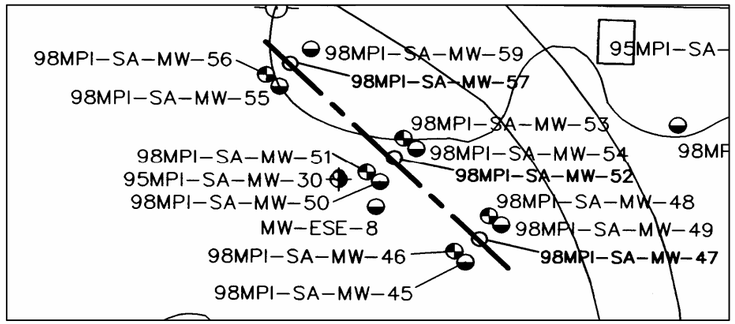
LONG-TERM MONITORING
SIBERIA AREA, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

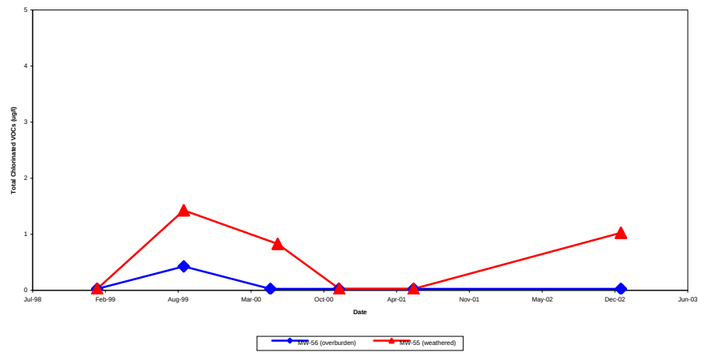
TOTAL CHLORINATED ORGANIC COMPOUNDS IN PERMEABLE REACTIVE WALL "A" MONITORING WELLS

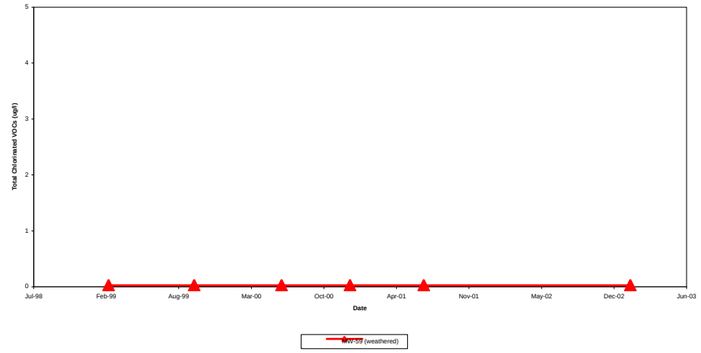
FIGURE 4-7

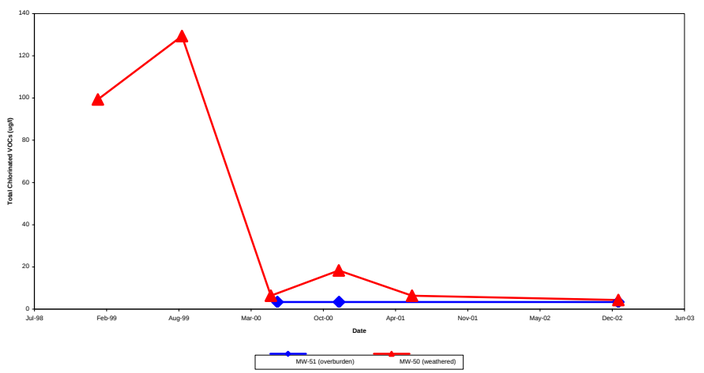
UP GRADIENT

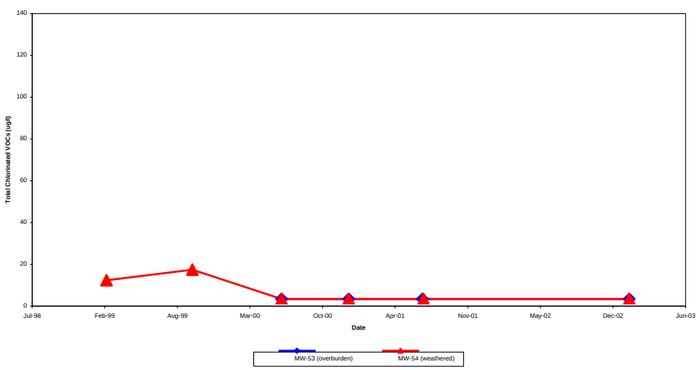
DOWN GRADIENT

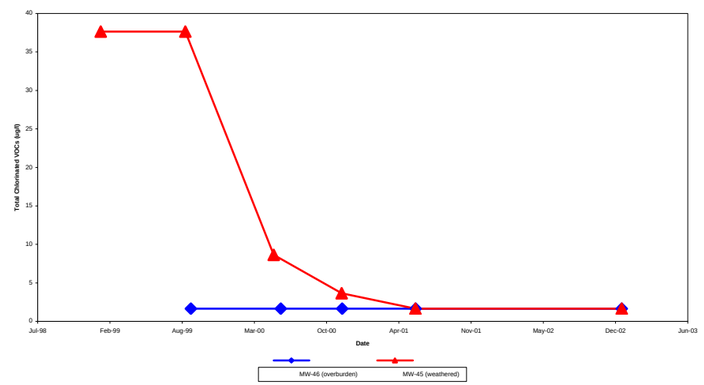


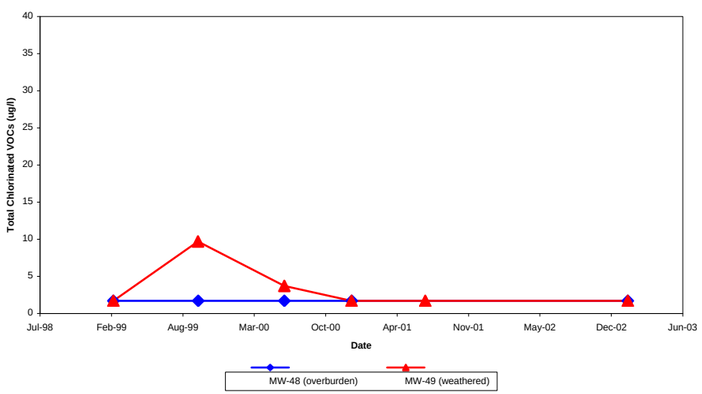












LEGEND

Weathered Bedrock Monitoring Well
Overburden Monitoring Well

Note: Vertical scales are not the same.

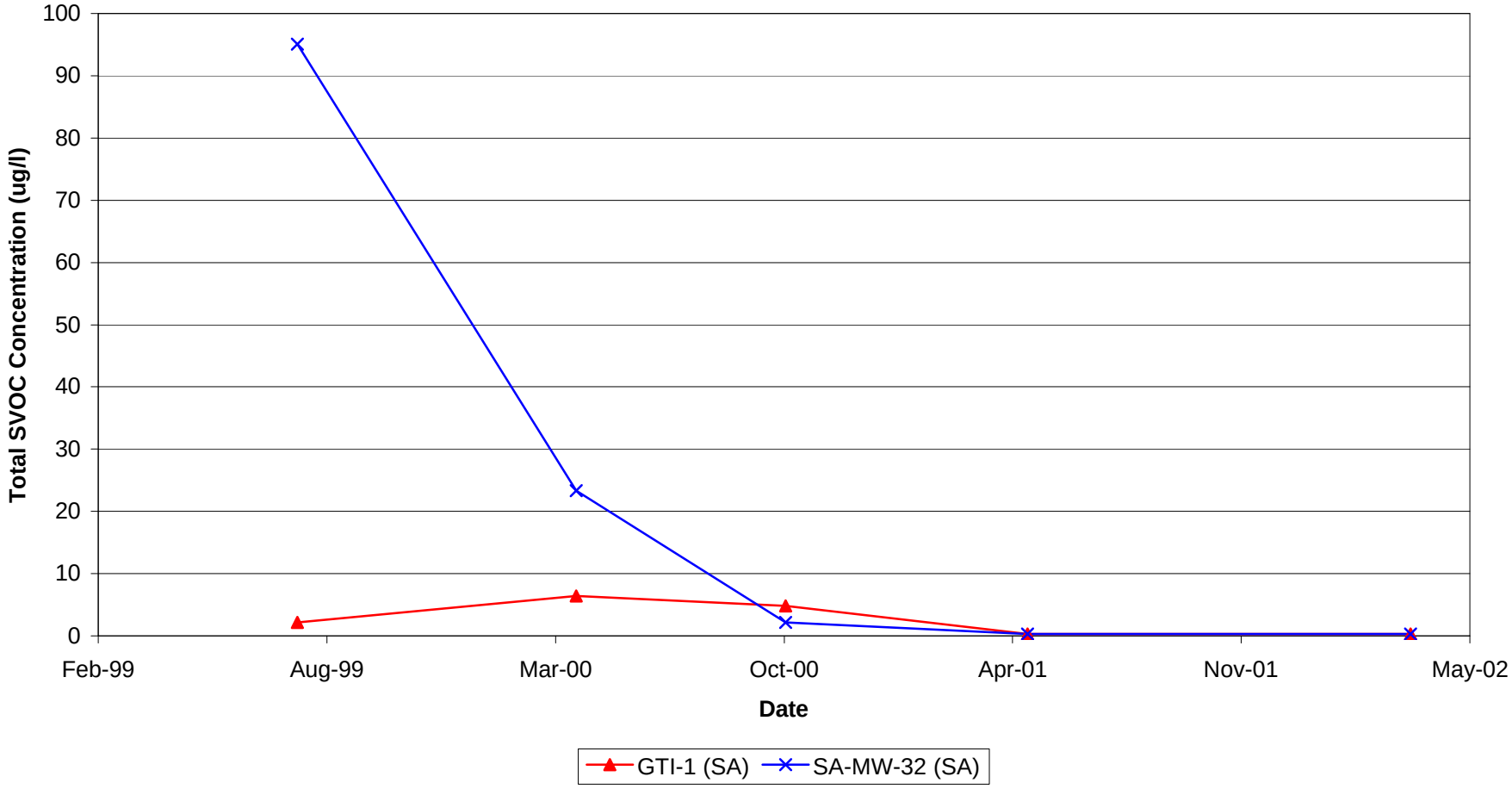
US Army Corps of Engineers
Baltimore District

LONG-TERM MONITORING
SIBERIA AREA, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TOTAL CHLORINATED ORGANIC COMPOUNDS IN PERMEABLE REACTIVE WALL "B" MONITORING WELLS

FIGURE 4-8

Figure 4-9
Trends in Total SVOC Concentration in Areas of Concern
Siberia Area
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York



F\P\0285771\F\2002 REPORT\trends.xls

Table 2-1
Summary of Incomplete Sampling Locations
May/November 2002 Long Term Monitoring Event
Watervliet Arsenal, Watervliet, New York

Monitoring Well	May/November 2002
Main Manufacturing Area	
93EM-SP-9	No sample collected - insufficient water.
95MPI-AW-MW-33	Insufficient recharge - only sampled VOCs.
95MPI-AW-MW-34	Water contained $KMNO_4$ - only sampled VOCs.
98MPI-AW-MW-59	Water contained $KMNO_4$ - only sampled VOCs.
98MPI-AW-MW-61	No sample collected - insufficient water.
Siberia Area	
MW-GTI-1	Could not locate well.
WVA-SA-STS-3	Inaccessible at time of sampling.
WVA-SA-STS-5	Inaccessible at time of sampling.
WVA-SA-STS-6	Inaccessible at time of sampling.
WVA-SA-SNS-6	Inaccessible at time of sampling.

Table 4-1
Summary of Groundwater Elevations
Long Term Monitoring
Watervliet Arsenal
Watervliet, New York

Well	8/2/1999	4/3/2000	10/4/2000	4/30/2001	5/14/2002
Main Manufacturing Area					
83DM-SP-1	23.44	24.44	23.74	24.13	24.79
83DM-SP-3	17.37	18.05	17.97	17.90	18.77
83DM-SP-4	17.73	18.29	18.31	18.18	19.15
86-EM-SP-1A	25.16	25.45	25.34	25.39	25.89
86-EM-SP-1B	21.29	22.50	24.52		23.02
86EM-SP-5	20.16	20.97	20.30	20.48	21.40
86EM-SP-6	20.10	20.74	20.37	20.47	21.03
87GTI-MW-1BP	61.18	64.20	61.60	61.68	64.41
87GTI-MW-2BP	60.82	64.19	61.12	61.59	64.32
87GTI-MW-3BP	60.81	63.66	61.03	61.49	62.66
87GTI-MW-4BP	60.04	64.10	60.22	60.85	62.65
92EM-SP-7	19.16	19.97	19.80	19.65	20.76
92EM-SP-8	17.78	20.84	20.13	20.15	21.00
93-EM-RW-2	61.72	60.73	57.78	57.76	60.62
93-EM-SP-11	25.89	27.22	26.33	26.80	28.39
93-EM-SP-12	28.99	29.48	29.26	29.48	26.83
93-EM-SP-13	62.18	62.29	62.18	62.24	62.54
93-EM-SP-14	62.88	62.88	62.85	62.78	63.18
93-EM-SP-15	58.85	59.90	59.14	59.52	60.10
93-EM-SP-9			33.59	33.87	
94EM-MW-19	46.43	48.33	46.81	47.21	49.03
94EM-MW-20	43.25	45.76	43.30	40.33	46.01
94EM-MW-21	46.31	46.98	46.32	45.91	47.86
95MPI-135-MW-1	16.93	18.00	17.33	18.52	
95MPI-135-MW-2	65.23	66.37	65.43	65.64	67.13
95MPI-135-MW-3	61.94	65.47	62.12	62.02	63.29
95MPI-135-MW-4	57.37	58.35	57.72	58.03	58.24
95MPI-25-MW-1	29.52	30.04	30.01	30.36	34.02
95MPI-25-MW-2	21.77	22.55	21.91	22.21	23.41
95MPI-25-MW-3	23.12	23.84	23.23	23.69	24.34
95MPI-25-MW-4	20.20	20.82	21.90	20.70	21.20
95MPI-25-MW-5	19.38	19.58	19.33	19.38	22.28
95MPI-25-MW-6	24.37	25.16	24.84	25.06	25.64
95MPI-35-MW-5	39.07	40.05	39.30	39.35	39.71
95MPI-35-MW-6	31.65	30.77	30.34	31.97	32.02
95MPI-35-MW-7	43.67	44.14	43.71	44.05	44.21
95MPI-35-MW-8	50.17	49.60	51.50	49.92	49.85
95MPI-AW-MW-20	10.46	11.92	10.79		12.80
95MPI-AW-MW-21	20.63	21.11	20.64	21.14	
95MPI-AW-MW-22	40.89	41.28	41.15	41.13	41.64
95MPI-AW-MW-23	48.46	52.34	48.70	48.55	51.04
95MPI-AW-MW-24	51.58	52.07			51.99
95MPI-AW-MW-25	54.92	56.21	55.10	55.46	56.77
95MPI-AW-MW-26	59.13	59.28	58.85	58.80	59.29
95MPI-AW-MW-27	51.55	53.17	51.64	51.90	53.85
95MPI-AW-MW-28	60.21	60.71	60.19	60.22	60.67
95MPI-AW-MW-29	60.49	60.61	60.25	60.53	60.78
95MPI-AW-MW-30	62.27	63.09	62.28	62.79	63.30
95MPI-AW-MW-31	22.48	22.72	22.34	22.74	23.16
95MPI-AW-MW-32	14.69	15.95	15.44	15.64	16.11
95MPI-AW-MW-33	8.06	9.31	8.14		
95MPI-AW-MW-34	8.55	9.00	8.62	8.86	
95MPI-AW-MW-35	20.47	21.19	20.66	21.22	22.18
95MPI-AW-MW-36	20.57	21.26	20.80		
95MPI-AW-MW-37	47.55	48.66	47.39	47.23	48.45

Table 4-1
Summary of Groundwater Elevations
Long Term Monitoring
Watervliet Arsenal
Watervliet, New York

Well	8/2/1999	4/3/2000	10/4/2000	4/30/2001	5/14/2002
95MPI-AW-MW-38	45.89	49.72	45.94	45.53	46.39
95MPI-AW-MW-39	63.44	64.54	63.59	63.66	64.86
95MPI-AW-MW-40	64.57	65.58	64.67	64.71	66.53
95MPI-AW-MW-41	58.40	58.70	58.39	58.37	58.83
95MPI-AW-MW-42	59.53	58.85	59.61	59.81	60.21
95MPI-AW-MW-43	19.99	20.68	20.05		20.79
95MPI-AW-MW-44	19.72	20.55	19.84		20.69
97MPI-AW-MW-45	52.95	53.03	53.03	52.83	53.48
97MPI-AW-MW-46	18.03	20.77	20.50	20.89	20.76
97MPI-AW-MW-47	20.80	21.58	20.95	20.98	22.20
97MPI-AW-MW-49	22.22	23.24	22.53	22.89	23.24
97MPI-AW-MW-50	52.80	63.98	53.81	54.54	53.00
97MPI-AW-MW-51	8.97	9.32	12.55	9.24	
97MPI-AW-MW-55	66.08	67.03	66.74	66.77	66.78
98MPI-AW-MW-56	17.32	20.22	19.42	19.71	20.61
98MPI-AW-MW-57	19.65	20.15	19.87	19.95	20.60
98MPI-AW-MW-58	9.34	9.83	9.17	9.48	12.24
98MPI-AW-MW-59	8.95	9.65	9.11	9.04	10.51
98MPI-AW-MW-60	17.39	18.22	17.53	19.21	17.63
98MPI-AW-MW-62	14.33	14.78	14.59	13.93	14.67
98MPI-AW-MW-63	61.98	62.88	62.17	62.35	63.17
98MPI-AW-MW-64	59.38	59.83	58.99	58.81	60.00
MPI-P-1	54.43	54.76	54.53	54.71	56.19
MPI-P-2	45.96	47.27	46.48	46.87	1.37
MPI-P-3	43.29	42.92	42.70	44.30	45.25
MPI-P-4	47.53	45.44	44.99	45.09	47.53
PW-1	48.38	49.09	48.62	49.60	49.60
RW-1		27.49	25.32	25.60	27.21
Siberia Area					
95-MPI-SA-MW-19	39.64	39.72	39.36	39.30	40.21
95-MPI-SA-MW-20	36.97	41.97	39.53	39.65	31.49
95-MPI-SA-MW-21	32.33	38.66	38.39	38.41	34.59
95-MPI-SA-MW-22	32.81	33.51	32.56	32.81	38.79
95-MPI-SA-MW-23	39.33	41.15	39.64	40.37	40.68
95-MPI-SA-MW-24	35.20	38.29	35.76	35.94	39.43
95-MPI-SA-MW-25	39.04		39.44	39.53	40.88
95-MPI-SA-MW-26	41.61	43.11	41.70	41.96	43.41
95-MPI-SA-MW-27	38.83	39.51			40.68
95-MPI-SA-MW-28	37.78	38.18	38.02	37.88	38.67
95-MPI-SA-MW-29	35.72	39.06	38.90	35.99	39.37
95-MPI-SA-MW-30	34.04	36.29	34.04		34.94
95-MPI-SA-MW-31	36.79	36.75	36.64	36.60	37.34
95-MPI-SA-MW-32	37.56	40.47	38.92	41.70	41.70
95-MPI-SA-MW-33					
95-MPI-SA-MW-34	32.06	32.25	32.00	32.01	32.58
95-MPI-SA-MW-35	38.80	40.50	41.83	40.01	40.18
95-MPI-SA-MW-36	31.64	36.89	32.23	32.51	34.77
95-MPI-SA-MW-37	39.16	39.49	39.11	39.08	40.40
95-MPI-SA-MW-38	32.31	31.98	32.59	32.71	33.13
97-MPI-SA-MW-39			37.51	41.81	41.81
98 MPI-SA-MW-45	34.07	36.23	33.62	34.01	38.77
98 MPI-SA-MW-46	34.9	37.19	35.12	36.07	39.9
98 MPI-SA-MW-47	34.01	36.17	33.57	33.87	33.91
98 MPI-SA-MW-48	33.98	36.59	33.8	34.04	35.6
98 MPI-SA-MW-49	33.78	35.73	33.58	33.89	30.09
98 MPI-SA-MW-50	34.1	36.63	33.86	34.41	36.09

Table 4-1
Summary of Groundwater Elevations
Long Term Monitoring
Watervliet Arsenal
Watervliet, New York

Well	8/2/1999	4/3/2000	10/4/2000	4/30/2001	5/14/2002
98 MPI-SA-MW-51	35.64	37.53	35.69	36.56	36.91
98 MPI-SA-MW-52	34.02	36.27	33.68	34.06	39.32
98 MPI-SA-MW-53	35.28	38.98	35.59	37.32	36.68
98 MPI-SA-MW-54	33.9	36.16	33.64	33.99	39.4
98 MPI-SA-MW-55	34.35	37.04	34.25	34.69	37.42
98 MPI-SA-MW-56	34.71	36.92	34.91	35.11	39.61
98 MPI-SA-MW-57	34.07	36.37	33.87	34.35	39.07
98 MPI-SA-MW-59	33.46	35	33.42	33.77	39.06
98 MPI-SA-MW-60	37.41	38.85	37.77	38.38	38.32
98 MPI-SA-MW-61	37.77	38.65	37.73	38.46	37.83
98 MPI-SA-MW-62	37.36	38.79	37.67	38.26	38.25
98 MPI-SA-MW-63	37.49	38.91	38.25	38.71	38.46
98 MPI-SA-MW-64	37.38	38.83	37.7	38.29	38.28
98 MPI-SA-MW-65	37.63	39.95	38.83	38.48	38.23
98 MPI-SA-MW-66	36.99	39.15	37.65	38.69	38.29
98 MPI-SA-MW-67	37.01	39.08	37.76	38.66	38.46
98 MPI-SA-MW-68	36.81	38.95	37.42	38.43	38.01
98 MPI-SA-MW-69	37.81	39.05	37.91	39.06	38.33
98 MPI-SA-MW-70	38.19	39.88	38.22	39.49	40.49
98 MPI-SA-MW-71	36.66	38.97	37.33	38.61	39.66
98 MPI-SA-MW-72	36.76	39.31	37.41	38.71	38.86
98 MPI-SA-MW-73	36.71	38	37.39	38.76	38.8
98 MPI-SA-MW-74	36.54	39.26	37.21	38.84	38.59
98 MPI-SA-MW-75	32.87	33.14	32.97	32.96	33.50
98 MPI-SA-MW-76	32.6	32.71	32.59	32.6	
98 MPI-SA-MW-77	33.24	34.41	33.32	33.57	
SA-MW-85					
98-MPI-SA-MW-40	39.17	40.45	39.66	40.11	41.01
98-MPI-SA-MW-41	33.42	34.89	38.99	40.13	41.88
DEC-1	8.55	12.20	14.45	16.81	1.65
DEC-2	35.50	36.53	35.82	36.21	36.36
DEC-3	36.73	37.87	36.89	37.38	37.50
MW-EA-5	40.20	41.32	40.44	40.73	41.34
MW-EA-6	39.33	40.62	40.52		
MW-EA-7	40.58	41.37	40.77	40.97	38.13
MW-EA-8	37.12	37.91	37.12	37.42	36.96
MW-ESE-1	38.19	38.71	38.52	38.40	39.16
MW-ESE-2	40.73	42.58	41.05	41.48	43.11
MW-ESE-3	33.11	34.58	33.75	33.94	41.67
MW-ESE-4	30.50	32.38	30.12	31.36	44.05
MW-ESE-5	40.03	40.83	40.27	40.40	41.57
MW-ESE-6	31.09	32.98	31.71	31.94	34.41
MW-ESE-7	33.21	33.38	33.12	33.17	33.43
MW-ESE-8	33.97	36.33	33.83	34.40	36.12
MW-ESE-9					
MW-GTI-1	38.18	40.23	38.33	39.23	
MW-GTI-2	39.30	41.55	39.29	44.76	45.04
MW-GTI-3	34.18	34.79	34.18	34.50	
MW-GTI-4	38.92	40.58	38.41	44.69	45.14

Table 4-2
Summary of Exceedences of NYSDEC Class GA Standards
Main Manufacturing Area Groundwater Samples
Long Term Monitoring
Watervliet Arsenal, Watervliet, New York

Well	SVOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedences	VOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedences
	Sep-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02		Sep-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02	
WVA-MMA-110		no	no	no	no	no	no	0		no	no	no	no	no	no	0
WVA-MMA-121-N		no	no	no	no	no	no	0		yes	yes	yes	yes	no	yes	5
WVA-MMA-121-S		no	no	no	no	no	no	0		yes	yes	yes	yes	yes	yes	6
WVA-MMA-135-MW-1	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-135-MW-2	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-135-MW-4	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-25-MW-1	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-25-MW-2	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	7
WVA-MMA-25-MW-3	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	7
WVA-MMA-25-MW-5	no	no	no	yes	no	no	no	1	no	no	no	no	no	no	no	0
WVA-MMA-25-MW-6	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	7
WVA-MMA-35-MW-5	no	no	no	no	no	no	no	0	no	no	no	no	no	yes	no	1
WVA-MMA-35-MW-8	yes	yes	no	no	yes	no	no	3	no	no	no	no	no	no	no	0
WVA-MMA-83DM-SP-1	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	7
WVA-MMA-86EM-SP-1A	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	7
WVA-MMA-86EM-SP-1B	no	no	no	no	no	no	no	0	yes	no	no	no	no	no	no	1
WVA-MMA-86EM-SP-5	no	no	no	no	no	no	no	0	yes	yes	no	no	no	no	no	2
WVA-MMA-86EM-SP-6	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-92EM-SP-7	no	yes	no	no	no	no	no	1	yes	no	no	no	no	no	no	1
WVA-MMA-92EM-SP-8	no	no	no	no	no	no	no	0	yes	no	no	no	no	no	no	1
WVA-MMA-93EM-RW-2	yes	no	no	no	no	no	no	1	yes	yes	no	yes	yes	yes	yes	6
WVA-MMA-93EM-SP-11	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-93EM-SP-9	no	no	no	no	no	no	no	0	no	yes	no	no	no	no	no	1
WVA-MMA-DM-SP-3	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-EM-SP-13	yes	no	no	yes	yes	no	no	3	no	no	no	no	no	no	no	0
WVA-MMA-MW-19			no	no	no	no		0			no	no	no	no		0
WVA-MMA-MW-20		no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-21	no	no	no	no	no	no		0	no	no	no	no	no	no		0
WVA-MMA-MW-22	no	no	no	yes	no	no	no	1	no	no	no	no	no	no	no	0
WVA-MMA-MW-23	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-24	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-26	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-27	no	no	no	no	no	no	no	0	yes	yes	no	no	no	no	yes	3
WVA-MMA-MW-29	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-30	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-32	no	no	no	no	no	no	no	0	no	no	no	yes	no	no	no	1
WVA-MMA-MW-33	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-34	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	7
WVA-MMA-MW-35	no	no	no	no	no	no	no	0	no	yes	yes	yes	yes	yes	yes	7
WVA-MMA-MW-36		no	no	no	no	no	no	0	yes	yes	no	yes	yes	yes	yes	6
WVA-MMA-MW-38	yes	no	no	no	no	no	no	1	no	no	no	no	no	no	no	0

Table 4-2
Summary of Exceedences of NYSDEC Class GA Standards
Main Manufacturing Area Groundwater Samples
Long Term Monitoring
Watervliet Arsenal, Watervliet, New York

Well	SVOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedences	VOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedences
	Sep-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02		Sep-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02	
WVA-MMA-MW-41	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-MMA-MW-43	no	no	no	yes	no	no	no	1	yes	yes	no	yes	yes	yes	no	5
WVA-MMA-MW-44	no	no	no	yes	no	no	no	1	yes	yes	no	no	no	no	no	2
WVA-MMA-MW-47			no	no	no	no	no	0			no	yes	yes	yes	yes	4
WVA-MMA-MW-51			no	yes	no	no	no	1			yes	yes	yes	yes	yes	5
WVA-MMA-MW-52			no	no	no	no	no	0			no	no	no	no	no	0
WVA-MMA-MW-58			no	no	no	no	no	0			no	no	no	no	no	0
WVA-MMA-MW-59			no	no	no	no	no	0			yes	yes	yes	yes	yes	5
WVA-MMA-MW-61				no	yes			1				yes	yes			2
WVA-MMA-MW-64			no	yes	no	no	no	1			no	yes	yes	yes	yes	4
WVA-MMA-PW-1			yes	no	no	no	no	1			no	no	no	no	no	0
WVA-MMA-SP-4	no	no	no	yes	no	no	no	1	no	no	no	no	no	no	no	0

Notes:
Blank Cell - Monitoring well not sampled or not installed.

Table 4-3
Summary of VOC and SVOC Detections
MMA Groundwater Samples
Long Term Monitoring (8/99 - 5/02)
Watervliet Arsenal, Watervliet, New York

Analyte	Number of Detections	Number of Samples	Percent Detections
Volatile Organic Compounds			
Methylene chloride	145	257	56.4%
cis-1,2-Dichloroethene	74	205	36.1%
Trichloroethene	71	257	27.6%
Tetrachloroethene	53	257	20.6%
Vinyl chloride	52	257	20.2%
2-Butanone	44	257	17.1%
Chloroform	37	257	14.4%
trans-1,2-Dichloroethene	31	257	12.1%
1,1-Dichloroethane	30	257	11.7%
1,1,1-Trichloroethane	24	257	9.3%
Carbon disulfide	21	257	8.2%
1,1-Dichloroethene	16	257	6.2%
Toluene	10	257	3.9%
Benzene	9	257	3.5%
Chloromethane	9	257	3.5%
1,1,2,2-Tetrachloroethane	8	257	3.1%
4-Methyl-2-Pentanone	6	257	2.3%
Bromodichloromethane	6	257	2.3%
Chlorobenzene	5	257	1.9%
Xylene	4	257	1.6%
Carbon tetrachloride	2	257	0.8%
Ethylbenzene	2	257	0.8%
Bromomethane	2	257	0.8%
Chloroethane	1	257	0.4%
2-Chloroethylvinylether	1	257	0.4%
Trichlorofluoromethane	1	257	0.4%
Dibromochloromethane	1	257	0.4%

Table 4-3
Summary of VOC and SVOC Detections
MMA Groundwater Samples
Long Term Monitoring (8/99 - 5/02)
Watervliet Arsenal, Watervliet, New York

Analyte	Number of Detections	Number of Samples	Percent Detections
Semi-Volatile Organic Compounds			
bis(2-Ethylhexyl)phthalate	146	244	59.8%
Di-n-butylphthalate	89	244	36.5%
Diethylphthalate	55	244	22.5%
Di-n-octylphthalate	41	244	16.8%
Butylbenzylphthalate	33	244	13.5%
Pyrene	22	244	9.0%
Fluoranthene	20	244	8.2%
Phenol	20	244	8.2%
4-Chloro-3-methylphenol	17	244	7.0%
Naphthalene	14	244	5.7%
Acenaphthene	14	244	5.7%
Fluorene	10	244	4.1%
Phenanthrene	3	244	1.2%
Anthracene	2	244	0.8%
Benzo(b)fluoranthene	2	244	0.8%
Benzo(k)flouranthene	2	244	0.8%
Chrysene	2	244	0.8%
Benzo(a)pyrene	1	244	0.4%
2,4-Dimethylphenol	1	244	0.4%
Pentachlorophenol	1	244	0.4%

Table 4-4
Summary of Exceedences of NYSDEC Class GA Standards
Siberia Area Groundwater Samples
Long Term Monitoring
Watervliet Arsenal, Watervliet, New York

Well	SVOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedances	VOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedances
	Jun-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02		Jun-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02	
WVA-SA-MW-19	yes	no	no	no	no	no	no	0	yes	no	no	no	no	no	no	0
WVA-SA-MW-20	no	no	no	no	no	no	no	0	yes	yes	yes	no	no	no	no	1
WVA-SA-MW-22	no	no	no	no	no	no		0	no	no	no	no	no	no		0
WVA-SA-MW-23	no	yes	no	no	no	no	no	0	no	no	no	yes	no	no	no	1
WVA-SA-MW-26	yes	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-27	no	no	no	no	no	no	no	0	no	no	no	yes	no	no	no	1
WVA-SA-MW-28	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-29	no	no	no	no	no	no	no	0	no	no	yes	no	no	no	no	1
WVA-SA-MW-32	no	yes	yes	yes	no	no	no	2	yes	yes	yes	yes	yes	yes	no	4
WVA-SA-MW-33	no		no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-34	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-38	no	no	no	no	no	no	no	0	no	no	yes	no	no	no	no	1
WVA-SA-MW-39			no	no	no	no	no	0			no	no	yes	yes	yes	3
WVA-SA-MW-41			no	no	no	no	no	0			yes	yes	yes	yes	no	4
WVA-SA-MW-45			no	yes	no	no	no	1			yes	yes	yes	no	no	3
WVA-SA-MW-46			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-47			no	yes	no	no	no	1			no	no	no	no	no	0
WVA-SA-MW-48			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-49			no	no	no	no	no	0			yes	yes	no	no	no	2
WVA-SA-MW-50			no	no	no	no	no	0			yes	yes	yes	yes	no	4
WVA-SA-MW-51			no	no	no	no	no	0			no	yes	no	no	no	1
WVA-SA-MW-52			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-53			no	yes	no	no	no	1			no	no	no	no	no	0
WVA-SA-MW-54			no	yes	no	no	no	1			yes	yes	no	no	no	2
WVA-SA-MW-55			no	no	no	no	no	0			yes	yes	no	no	no	2
WVA-SA-MW-56			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-57			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-58			no	no	no	no		0			no	no	no	no		0
WVA-SA-MW-59			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-60			no	no	no	no	no	0			yes	yes	yes	yes	yes	5
WVA-SA-MW-61			no	no	no	no	no	0			yes	yes	no	no	no	2
WVA-SA-MW-62			no	no	yes	no	no	1			no	no	no	no	no	0
WVA-SA-MW-63			no	no	no	no	no	0			no	yes	no	yes	no	2
WVA-SA-MW-64			no	no	no	no	no	0			yes	yes	yes	yes	yes	5
WVA-SA-MW-65			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-66			no	no	no	no	no	0			yes	no	no	yes	no	2
WVA-SA-MW-67			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-68			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-69			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-70			no	no	no	no	no	0			yes	yes	yes	yes	yes	5

Table 4-4
Summary of Exceedences of NYSDEC Class GA Standards
Siberia Area Groundwater Samples
Long Term Monitoring
Watervliet Arsenal, Watervliet, New York

Well	SVOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedances	VOCs Detected at Greater than GA Standards							Total Number of Sampling Events with GA Standard Exceedances
	Jun-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02		Jun-95	May-96	Aug-99	Apr-00	Oct-00	May-01	May-02	
WVA-SA-MW-71			no	yes	no	no	no	1			yes	yes	no	yes	yes	4
WVA-SA-MW-72			no	no	no	no	no	0			yes	yes	yes	yes	no	4
WVA-SA-MW-73			no	no	no	no	no	0			no	yes	yes	no	no	2
WVA-SA-MW-74			no	no	no	no	no	0			yes	yes	yes	yes	no	4
WVA-SA-MW-75			no	no	no	no	no	0			no	no	no	no	yes	1
WVA-SA-MW-76			no	no	no	no	no	0			no	no	no	no	no	0
WVA-SA-MW-77			no	no	no	no	no	0			no	yes	no	no	no	1
WVA-SA-MW-EA-6	no	no	no	no	no	no	no	0	no	yes	yes	yes	no	no	yes	3
WVA-SA-MW-ESE-1	no	no	no	no	no	no	no	0	no	no	no	no	yes	no	no	1
WVA-SA-MW-ESE-2	no	no	no	no	no	no	no	0	no	no	yes	no	no	no	no	1
WVA-SA-MW-ESE-3	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-ESE-6	no	no	no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-ESE-8	no	no	no	no	no	no	no	0	yes	yes	yes	yes	yes	yes	yes	5
WVA-SA-MW-GTI-1	no	no	no	yes	yes	no	no	2	no	no	no	no	no	no	no	0
WVA-SA-MW-GTI-3	yes		no	no	no	no	no	0	no	no	no	no	no	no	no	0
WVA-SA-MW-SNS-6		no	no	no	no	no		0		yes	yes	yes	yes	no		3
WVA-SA-MW-STS-3			no	no	no	no		0			no	no	no	no		0
WVA-SA-MW-STS-5			no	no	no	no		0			no	yes	yes	no		2
WVA-SA-MW-STS-6			no	no	no	no		0			yes	no	yes	yes		3

Notes:
- Reactive wall monitoring wells
Blank space - Monitoring well not sampled or not installed.

Table 4-5
Summary of VOC and SVOC Detections
Siberia Area Groundwater Samples
Long Term Monitoring
Watervliet Arsenal, Watervliet, New York

Analyte	Number of Detections	Number of Samples	Percent Detections
Volatile Organic Compounds			
Methylene chloride	128	280	45.7%
cis-1,2-Dichloroethene	94	280	33.6%
Vinyl chloride	84	280	30.0%
2-Butanone	66	280	23.6%
Benzene	31	280	11.1%
Carbon disulfide	19	280	6.8%
Tetrachloroethene	19	280	6.8%
Bromodichloromethane	17	280	6.1%
Toluene	12	280	4.3%
trans-1,2-Dichloroethene	12	280	4.3%
Chlorobenzene	11	280	3.9%
4-Methyl-2-Pentanone	9	280	3.2%
Xylene	7	280	2.5%
Chloroform	6	280	2.1%
Ethylbenzene	5	280	1.8%
1,1,2,2-Tetrachloroethane	5	280	1.8%
Bromomethane	3	280	1.1%
Trichloroethene	3	280	1.1%
Bromoform	2	280	0.7%
Carbon tetrachloride	2	280	0.7%
Dibromochloromethane	2	280	0.7%
1,1,2-Trichloroethane	2	280	0.7%
Trichlorofluoromethane	2	280	0.7%
1,1-Dichloroethene	2	280	0.7%
Chloroethane	1	280	0.4%
2-Chloroethylvinylether	1	280	0.4%
1,2-Dichloroethane	1	280	0.4%
trans-1,3-Dichloropropene	1	280	0.4%
1,1,1-Trichloroethane	1	280	0.4%

Table 4-5
Summary of VOC and SVOC Detections
Siberia Area Groundwater Samples
Long Term Monitoring
Watervliet Arsenal, Watervliet, New York

Analyte	Number of Detections	Number of Samples	Percent Detections
Semi-Volatile Organic Compounds			
bis(2-Ethylhexyl)phthalate	102	270	37.8%
Di-n-butylphthalate	90	270	33.3%
Diethylphthalate	56	270	20.7%
Di-n-octylphthalate	52	270	19.3%
Butylbenzylphthalate	32	270	11.9%
Pyrene	16	270	5.9%
Phenol	15	270	5.6%
4-Chloro-3-methylphenol	14	270	5.2%
Fluoranthene	14	270	5.2%
Benzo(a)pyrene	10	270	3.7%
Phenanthrene	9	270	3.3%
Anthracene	8	270	3.0%
Benzo(a)anthracene	8	270	3.0%
Chrysene	8	270	3.0%
Acenaphtylene	6	270	2.2%
Benzo(b)fluoranthene	6	270	2.2%
Benzo(k)fluoranthene	6	270	2.2%
Naphthalene	6	270	2.2%
Acenaphthene	5	270	1.9%
Benzo(g,h,I)perylene	4	270	1.5%
1,4-Dichlorobenzene	4	270	1.5%
Fluorene	4	270	1.5%
Indeno(1,2,3-cd)pyrene	4	270	1.5%
1,2-Dichlorobenzene	3	270	1.1%
2-Methylnapthalene	3	270	1.1%
2,4-Dimethylphenol	2	270	0.7%
1,2,4-Trichlorobenzene	2	270	0.7%
N-Nitrodiphenylamine (1)	1	270	0.4%
Pentachlorophenol	1	270	0.4%

Table 4-6
Comparison of Analytical Results for Low-Flow Purge Samples and Passive Diffusion Bag Samples
Permeable Iron Reactive Wall Monitoring Wells
Siberia Area
Watervliet Arsenal, Watervliet, New York

Monitoring Well	Total VOCs (8260B list) (ug/l)	
	May 2001 (low flow sampling w/bladder pump)	November 2002 (sampled w/ diffusion bags)
WVA-SA-MW-45	5	ND
WVA-SA-MW-46	2	ND
WVA-SA-MW-47	1	ND
WVA-SA-MW-48	ND	ND
WVA-SA-MW-49	ND	ND
WVA-SA-MW-50	3.4	1
WVA-SA-MW-51	ND	ND
WVA-SA-MW-52	ND	ND
WVA-SA-MW-53	3	ND
WVA-SA-MW-54	0.6	0.7
WVA-SA-MW-55	ND	1
WVA-SA-MW-56	0.6	ND
WVA-SA-MW-57	0.5	1
WVA-SA-MW-59	ND	ND
WVA-SA-MW-60	1773	1388
WVA-SA-MW-61	1.3	0.4
WVA-SA-MW-62	ND	1.4
WVA-SA-MW-63	31	ND
WVA-SA-MW-64	51.4	138
WVA-SA-MW-65	ND	ND
WVA-SA-MW-66	6	5
WVA-SA-MW-67	0.2	ND
WVA-SA-MW-68	2.4	ND
WVA-SA-MW-69	ND	ND
WVA-SA-MW-70	86.6	73.7
WVA-SA-MW-71	13	6
WVA-SA-MW-72	34.5	5
WVA-SA-MW-73	4	ND
WVA-SA-MW-74	22	3
WVA-SA-MW-75	ND	7
WVA-SA-MW-76	ND	ND
WVA-SA-MW-77	0.5	ND

APPENDIX A

Field Purge Log Forms

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-52 MS, MSD

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/23/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 84.7'
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1255	1300	1305	1310	1315	1320	1325	1330			
Time	-104	-154	-157	-157	-156	-156	-156	-156			
Redox potential	8.85	8.96	8.88	8.88	8.87	8.87	8.79	8.75			
Conductivity (mohm/cm)	10.50	2.98	2.85	2.72	2.41	2.35	2.36	2.31			
Dissolved Oxygen (ppm)	14.02	14.07	14.06	14.07	14.07	14.08	14.09	14.09			
pH (S.U.s)	16.44	16.17	16.05	15.69	15.50	15.52	15.85	15.89			
Temp. (C)	13.7	12.1	11.3	11.6	12.7	12.7	12.2	12.3			
Turbidity (NTUs)	~~6~~5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6			
TDS	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49			
Salinity	85.3	85.75	85.81	85.95	86.30	86.45	86.70	87.0			
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.09 mg/L
Nitrite (mg/l)	0.397 mg/L
Sulfate (mg/l)	0 mg/L
Chloride (mg/l)	40 mg/L
Alkalinity (mg/l)	~~1350~~ mg/L
Ferrous Iron (mg/l)	3.30 mg/L (Limit)

COMMENTS:
1245 - Begin Purging @ ≈ 175 ml/min
1330 - End Purging
- Removed ≈ 2 gal
1335 - Begin Sampling
1435 - Sample collected
- MS, MSD collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-36

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/23/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2"

C Water Level Below Top of Casing (ft.) Below Top of Pump

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1500	1515	1520	1525	1530	1535					
Redox potential	228	187	179	175	175	174					
Conductivity (mohm/cm)	3.82	3.77	3.74	3.71	3.71	3.69					
Dissolved Oxygen (ppm)	5.04	3.07	3.07	3.04	2.87	2.89					
pH (S.U.s)	7.64	7.50	7.45	7.42	7.40	7.41					
Temp. (C)	20.0	19.31	18.93	18.91	18.81	18.74					
Turbidity (NTUs)	21.7	37.0	43.7	41.3	46.4	45.1					
TDS	2.4	2.41	2.4	2.4	2.4	2.4					
Salinity	0.19	0.19	0.19	0.19	0.19	0.19					
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	
Nitrite (mg/l)	
Sulfate (mg/l)	
Chloride (mgl)	
Alkalinity (mg/l)	
Ferrous Iron (mg/l)	

COMMENTS: 1500- Water level is Below Top of Pump
- ~~will purge Dry and sample on 5/24/02.~~
- Begin Purging @ ± 75 ml/min
1535- End purging
- Removed ≈ 1 gal
1545 Begin Sampling
1650- Sample Collected

Monitoring Well Purging/Sampling Log

Well No. WVA-Aw-MW-51

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/23/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 12.1
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	850	855	900	905	910	915	920				
Redox potential	278	140	-3	-78	-104	-129	-140				
Conductivity (mohm/cm)	2.02	1.93	1.91	1.89	1.90	1.90	1.90				
Dissolved Oxygen (ppm)	3.49	1.48	0.71	0.61	0.59	0.58	0.59				
pH (S.U.s)	8.61	8.85	8.95	9.04	9.02	9.0	9.02				
Temp. (C)	14.42	14.40	14.20	14.12	14.15	14.17	14.19				
Turbidity (NTUs)	3.8	10.0	18.8	25.2	23.0	22.5	23.0				
TDS	1.3	1.3	1.2	1.2	1.2	1.2	1.2				
Salinity	0.09	0.09	0.09	0.09	0.09	0.09	0.09				
Depth to Water (ft)	12.30	12.50	12.95	13.3	13.7	13.9	14.0				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.04 mg/L
Nitrite (mg/l)	0.081 mg/L
Sulfate (mg/l)	8 mg/L
Chloride (mg/l)	51 mg/L
Alkalinity (mg/l)	259 mg/L
Ferrous Iron (mg/l)	0.03 mg/L

COMMENTS:
850 - Begin purging @ ≈ 175 ml/min
920 - End purging
- Removed ≈ 2 gal
925 - Begin sampling
940 - Sample collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-33

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S):

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2"

C Water Level Below Top of Casing (ft.) ____

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time											
Redox potential											
Conductivity (mohm/cm)											
Dissolved Oxygen (ppm)											
pH (S.U.s)											
Temp. (C)											
Turbidity (NTUs)											
TDS											
Salinity											
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	
Nitrite (mg/l)	
Sulfate (mg/l)	
Chloride (mgl)	
Alkalinity (mg/l)	
Ferrous Iron (mg/l)	

COMMENTS: 1430 - Begin Purge @ ≈ 175 ml/min
1445 - well went dry
- stop purging

5/23/02
0750 - Set up on MW-33
800 - Collected VOC's ONLY.

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-64

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/23/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 11'
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1055	1100	1105	1110	1115	1120	1125	1130			
Time	53	1	-68	-55	-51	-47	-45	-43			
Redox potential	0.001	0.365	0.754	0.739	0.727	0.729	0.728	0.730			
Conductivity (mohm/cm)	10.71	7.61	5.29	5.01	4.79	4.75	4.73	4.74			
Dissolved Oxygen (ppm)	9.86	11.61	12.02	11.92	11.56	11.62	11.81	11.63			
pH (S.U.s)	19.63	96.60	15.45	15.36	15.24	15.26	15.22	15.23			
Temp. (C)	5.1	6.7	7.1	5.2	4.1	5.1	3.8	4.1			
Turbidity (NTUs)	0.4	0.48	0.48	0.47	0.47	0.47	0.47	0.47			
TDS	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03			
Salinity	11.35	11.61	11.80	11.95	12.1	12.15	12.25	12.35			
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.15 mg/L
Nitrite (mg/l)	0.022 mg/L
Sulfate (mg/l)	15 mg/L
Chloride (mgl)	204 mg/L
Alkalinity (mg/l)	0 mg/L
Ferrous Iron (mg/l)	0.02 mg/L

COMMENTS:
1050- Begin Purging @ ≈ 175 ml/min
1130- End Purging
- removed ≈ 2 gal
1140- Begin Sampling
1230- Sample Collected

Monitoring Well Purging/Sampling Log

Well No. 93EM-SP-11

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): KS & A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 8.1
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	855	900	905	910	915	920	925				
Redox potential	-6	-24	-35	-37	-38	-37	-36				
Conductivity (mohm/cm)	1.49	1.62	1.64	1.64	1.64	1.63	1.63				
Dissolved Oxygen (ppm)	9.13	1.98	0.86	0.76	0.72	0.70	0.69				
pH (S.U.s)	7.68	7.21	7.14	7.13	7.13	7.13	7.13				
Temp. (C)	12.83	13.13	13.33	13.38	13.40	13.42	13.41				
Turbidity (NTUs)	102.0	142	71.9	98.0	36.3	34.0	33.0				
TDS	1.0	1.0	1.0	1.0	1.0	1.0	1.0				
Salinity	0.07	0.07	0.08	0.08	0.08	0.08	0.08				
Depth to Water (ft)	8.35	8.40	8.50	8.60	8.70	8.81	8.87				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.15 mg/L
Nitrite (mg/l)	0.006 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mgl)	139 mg/L
Alkalinity (mg/l)	137 mg/L
Ferrous Iron (mg/l)	1.84 mg/L

COMMENTS: 855 - Begin Purging @ ≈ 175 ml/min
925 - End Purging
- removed ≈ 2 gal
1000 Sample Collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-35-MW-5

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 13.85'
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1030	1035	1040	1045	1050	1055					
Time	-186	-219	-219	-145	-170	-168					
Redox potential	0.725	0.714	0.711	0.710	0.708	0.709					
Conductivity (mohm/cm)	1.43	0.87	0.68	0.68	0.68	0.68					
Dissolved Oxygen (ppm)	9.32	9.35	9.42	9.39	9.38	9.39					
pH (S.U.s)	15.70	15.68	15.88	15.85	15.79	15.80					
Temp. (C)	0	0	0	0	0	0					
Turbidity (NTUs)	0.47	0.46	0.46	0.45	0.45	0.45					
TDS	0.03	0.03	0.03	0.03	0.03	0.03					
Salinity	13.90	14.22	14.70	14.95	15.20	15.35					
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.64 mg/L
Nitrite (mg/l)	0.058 mg/L
Sulfate (mg/l)	26 mg/L
Chloride (mgl)	78 mg/L
Alkalinity (mg/l)	108 mg/L
Ferrous Iron (mg/l)	0.13 mg/L

COMMENTS: 1025 - Begin Purging @ ≈ 125 ml/min
1055 - End purging ≈ 2 gal removed
1120 - Sample collected

Monitoring Well Purging/Sampling Log

Well No. WVA-GW-MW-38

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): K.S, A.T

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4"

C Water Level Below Top of Casing (ft.) 10.91

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time											
Redox potential											
Conductivity (mohm/cm)											
Dissolved Oxygen (ppm)											
pH (S.U.s)											
Temp. (C)											
Turbidity (NTUs)											
TDS											
Salinity											
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.05 mg/L
Nitrite (mg/l)	0.141 mg/L
Sulfate (mg/l)	0 mg/L
Chloride (mgl)	123 mg/L
Alkalinity (mg/l)	48 mg/L
Ferrous Iron (mg/l)	0.05 mg/L

COMMENTS: 1230 – Heavy Product of unknown thickness Present.
– with Purge for 30 min, Then Sample
– Purge Rate ≈ 175 gal/min
1320 – Sample collected
– Purged ≈ 2 gal

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-[redacted]-MW-34

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) ____
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time											
Redox potential											
Conductivity (mohm/cm)											
Dissolved Oxygen (ppm)											
pH (S.U.s)											
Temp. (C)											
Turbidity (NTUs)											
TDS											
Salinity											
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	
Nitrite (mg/l)	
Sulfate (mg/l)	
Chloride (mgl)	
Alkalinity (mg/l)	
Ferrous Iron (mg/l)	

COMMENTS: 1500 - Purge water is Purple ($KMnO_4$).
- will purge for 30 min, collect VOC,
Quench w/ Sodium Bi Sulfate.
1535 - VOC collected only.

Monitoring Well Purging/Sampling Log

Well No. ~~WVA-B35-Bed~~ WVA-AW-MW-59

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): KS & AT

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4"

C Water Level Below Top of Casing (ft.) ____

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time											
Redox potential											
Conductivity (mohm/cm)											
Dissolved Oxygen (ppm)											
pH (S.U.s)											
Temp. (C)											
Turbidity (NTUs)											
TDS											
Salinity											
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	
Nitrite (mg/l)	
Sulfate (mg/l)	
Chloride (mgl)	
Alkalinity (mg/l)	
Ferrous Iron (mg/l)	

COMMENTS: 1550 - Purge water is Purple (Kmno4). - will purge for 30 min @ ± 175 mL/min, collect VOC only, Quench w/ Sodium Bisulfate.
1620 - VOC collected only.

Monitoring Well Purging/Sampling Log

Well No. 86EM-SP-5
MS, MSD

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/28/02
SAMPLER(S): K. Stahle, A. Tompkins.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 7.2
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	855	900	905	910	915	920	925				
Time	57	-181	-135	-143	-169	-169	-170				
Redox potential	1.86	1.17	1.15	1.19	1.15	1.15	1.15				
Conductivity (mohm/cm)	8.37	1.60	1.45	1.17	0.86	0.81	0.79				
Dissolved Oxygen (ppm)	7.78	7.32	7.32	7.27	7.30	7.29	7.39				
pH (S.U.s)	11.83	12.52	12.57	12.60	12.60	12.60	12.60				
Temp. (C)	7999	164	163	159	146	136	134				
Turbidity (NTUs)	1.1	0.7	0.7	0.7	0.7	0.7	0.7				
TDS	6.08	0.05	0.05	.08	.05	.05	.05				
Salinity	7.21	7.19	7.21	7.20	7.21	7.18	7.15				
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.31 mg/L
Nitrite (mg/l)	0.020 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mgl)	52 mg/L
Alkalinity (mg/l)	137 mg/L
Ferrous Iron (mg/l)	1.65 mg/L

COMMENTS:
850 - Begin Purging @ ≈ 175 ml/min
925 - End Purging
- Removed ≈ 1 gal
930 - Begin Sampling.
1045 - Sample collected
- MS, MSD collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-25-MW-5

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/21/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 10.2
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1120	1125	1130	1135	1140	1145	1150	1155			
Redox potential	-93	-95	-78	-44	-14	-2	1	2			
Conductivity (mohm/cm)	3.0	2.33	0.626	0.411	0.586	0.814	0.947	0.947			
Dissolved Oxygen (ppm)	4.58	2.59	3.33	4.04	3.08	1.96	1.87	1.87			
pH (S.U.s)	7.88	7.99	8.23	8.32	7.98	7.76	7.74	7.78			
Temp. (C)	15.16	14.81	14.38	14.30	14.52	14.99	14.98	15.0			
Turbidity (NTUs)	233	208	124	96.4	73.4	49.3	47.0	46.5			
TDS	1.8	1.4	0.4	0.26	0.37	0.55	0.55	0.56			
Salinity	0.14	0.1	0.03	0.02	0.02	0.04	0.04	0.04			
Depth to Water (ft)	10.85	10.65	11.35	11.6	11.55	11.60	11.60	11.60			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.03 mg/L
Nitrite (mg/l)	0.118 mg/L
Sulfate (mg/l)	14 mg/L
Chloride (mgl)	103 mg/L
Alkalinity (mg/l)	77 mg/L
Ferrous Iron (mg/l)	0.00 mg/L

COMMENTS: 1120 - Begin Purging @ ≈ 175 ml/min
1155 - End Purging
- Removed ≈ 2gal
- Begin Sampling
1230 - Sample Collected

Monitoring Well Purging/Sampling Log

Well No. 83DM-SR1

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/21/02
SAMPLER(S): K.S., A.T

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 13.4
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1250	1255	1300	1305	1310	1315					
Time	-242	-261	-275	-283	-290	-295					
Redox potential	1.51	1.61	1.65	1.67	1.66	1.66					
Conductivity (mohm/cm)	2.42	1.04	0.68	0.64	0.63	0.61					
Dissolved Oxygen (ppm)	6.99	6.89	6.87	6.87	6.89	6.89					
pH (S.U.s)	15.31	14.98	14.87	14.84	15.02	15.01					
Temp. (C)	24.6	34.7	34.8	32.2	30.0	31.0					
Turbidity (NTUs)	1.0	1.0	1.1	1.1	1.1	1.1					
TDS	0.07	0.07	0.08	0.08	0.08	0.08					
Salinity	13.6	14.1	14.5	14.5	14.63	14.65					
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.00 mg/L
Nitrite (mg/l)	0.00 mg/L
Sulfate (mg/l)	0.00 mg/L
Chloride (mgl)	58 mg/L
Alkalinity (mg/l)	354 mg/L
Ferrous Iron (mg/l)	0.30 mg/L

COMMENTS: 1250 - Begin Purging @ ≈ 175 ml/min
1315 - End purging
- Removed ≈ 1 gal
1320 Begin Sampling
1430 - Sample collected

Monitoring Well Purging/Sampling Log

Well No. 86EM-SP-1A

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/21/02
SAMPLER(S): K.S., A.T.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2"

C Water Level Below Top of Casing (ft.) ~~10~~ 9.7

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1440	1445	1450	1455	1500	1505					
Redox potential	-36	-30	-24	-17	-6	-4					
Conductivity (mohm/cm)	1.74	0.545	0.476	0.451	0.451	0.451					
Dissolved Oxygen (ppm)	7.84	5.92	5.60	4.92	4.74	4.73					
pH (S.U.s)	7.61	7.67	7.58	7.49	7.45	7.45					
Temp. (C)	18.36	18.52	18.68	18.59	18.60	18.59					
Turbidity (NTUs)	0	0	0.4	0	0	0					
TDS	1.1	0.84	0.31	0.29	0.29	0.29					
Salinity	0.08	0.02	0.02	.02	.02	0.02					
Depth to Water (ft)	9.73	9.75	9.75	9.75	9.75	9.75					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.43 mg/L
Nitrite (mg/l)	0.011 mg/L
Sulfate (mg/l)	60 mg/L
Chloride (mgl)	22mg/L
Alkalinity (mg/l)	68 mg/L
Ferrous Iron (mg/l)	0.00 mg/L

COMMENTS:
1440 - Begin Purging @ ≈ 125 ml/min
1505 - End purging
- Removed ≈ 1 gal
1508 - Begin Sampling
1530 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-Aw-25-MW-1

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/21/02
SAMPLER(S): K.S., AT

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2"

C Water Level Below Top of Casing (ft.) 5.6'

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
ate											
ters											
Time	1605	1610	1615	1620	1625	1630	1635				
edox potential	-20	-52	-63	-73	-75	-75	-77				
onductivity (mohm/cm)	0.599	0.313	0.271	0.301	0.302	0.302	0.301				
Dissolved Oxygen (ppm)	9.02	2.05	1.28	0.89	0.89	0.89	0.89				
H (S.U.s)	9.53	10.42	10.46	10.53	10.53	10.51	10.49				
p. (C)	14.68	14.26	14.05	13.93	14.0	14.01	13.96				
Turbidity (NTUs)	9.0	62.6	153.0	232.0	226.0	220.0	219.0				
DS	0.38	0.19	0.18	0.2	0.2	0.2	0.2				
alinity	0.03	0.01	0.01	0.01	0.01	0.01	0.02				
Depth to Water (ft)	6.25	7.10	7.15	7.15	7.2	7.15	7.1				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
itrate (mg/l)	0.00 mg/L
Nitrite (mg/l)	0.013 mg/L
Sulfate (mg/l)	15 mg/L
Chloride (mgl)	125 mg/L
Alkalinity (mg/l)	90 mg/L
Ferrous Iron (mg/l)	0.08 mg/L

COMMENTS:
1605 - Begin Purging @ ≈ 175 ml/min
1635 - End Purging
- Removed ≈ 1.5 gal
1637 - Begin Sampling
1655 - Sample Collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-44

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/20/02
SAMPLER(S):

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 4'

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/20/02										
Liters											
Time	0900	0905	0910	0915							
Redox potential	-9	-24	-23	-24							
Conductivity (mohm/cm)	2.01	1.72	1.73	1.74							
Dissolved Oxygen (ppm)	2.37	.88	.81	.79							
pH (S.U.s)	7.29	7.28	7.22	7.21							
Temp. (C)	15.20	15.92	15.75	16.00							
Turbidity (NTUs)	6.5	6.8	7.8	8.0							
TDS	1.3	1.1	1.1	1.1							
Salinity	.09	.08	.08	.08							
Depth to Water (ft)	4.02	9.02	4.02	4.02							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.30 mg/L
Nitrite (mg/l)	0.007 mg/L
Sulfate (mg/l)	30 mg/L
Chloride (mgl)	75 mg/L
Alkalinity (mg/l)	105 mg/L
Ferrous Iron (mg/l)	0.37 mg/L

COMMENTS: 0900 Initiate purge @ ~100 ml/min.
0915 - Collected Sample.

Monitoring Well Purging/Sampling Log Well No. WVA-AW-MW-58

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/20/02
SAMPLER(S): H2O | AT

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 10.35

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED											
Date	5/20/02											
Liters	0	500	1000	1500	2000							
Time	1200	1205	1210	1215	1220							
Redox potential	89	97	98	99	99							
Conductivity (mohm/cm)	.622	.52	.44	.43	.43							
Dissolved Oxygen (ppm)	5.91	4.8	4.77	4.81	4.79							
pH (S.U.s)	8.02	7.161	7.35	7.30	7.30							
Temp. (C)	14.27	14.47	14.70	14.08	14.04							
Turbidity (NTUs)	0	0	0	0	0							
TDS	.9	.33	.29	.28	.27							
Salinity	.06	.02	.02	.02	.02							
Depth to Water (ft)	10.35'	11.11	11.60	12.10	12.64							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.56 mg/L
Nitrite (mg/l)	0.009 mg/L
Sulfate (mg/l)	4 mg/L
Chloride (mgl)	45 mg/L
Alkalinity (mg/l)	0 mg/L
Ferrous Iron (mg/l)	0.01 mg/L

COMMENTS: 1200- INITIAL Purge @ ~ 100 ml/min. 1205- Reduced Flow Rate to ~ 75 ml/min. 1220- Collected sample

Monitoring Well Purging/Sampling Log

Well No. [redacted] WVA-AW-MW-35

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/20/02
SAMPLER(S): BK / AT

A Total Casing and Screen Length (ft.) _____

B Casing Internal Diameter (in.) _____

C Water Level Below Top of Casing (ft.) 8.26

D Volume of Water in Casing - includes annulus (gal.) _____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/20/02										
Liters	0	500	1000	1500	2000						
Time	1400	1405	1410	1415	1420						
Redox potential	35	9	-8	-12	-10						
Conductivity (mohm/cm)	2.49	2.64	2.70	2.70	2.70						
Dissolved Oxygen (ppm)	2.74	1.28	.73	.71	.70						
pH (S.U.s)	7.53	7.51	7.53	7.54	7.54						
Temp. (C)	15.60	15.57	15.54	15.50	15.50						
Turbidity (NTUs)	0	0	0	0	0						
TDS	1.6	1.7	1.7	1.7	1.7						
Salinity	.12	.13	.13	.13	.13						
Depth to Water (ft)	8.26	8.34	8.36	8.36	8.36						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.02 mg/L
Nitrite (mg/l)	0.030 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mgl)	170 mg/L
Alkalinity (mg/l)	129 mg/L
Ferrous Iron (mg/l)	0.14 mg/L

COMMENTS: 1400 - Initiate Purge @ ≈ 100 ml/min
1420 - Collected samples

WVA-AW-25-MW-6

Monitoring Well Purging/Sampling Log

Well No. ~~WVA-AW-MW-6~~

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/20/02
SAMPLER(S): [illegible]

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 9.26'

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED											
Date	5/20/02											
Liters	0	500	1000	1500	2000							
Time	1505	1510	1515	1520	1525							
Redox potential	103	98	94	91	90							
Conductivity (mohm/cm)	5.79	5.85	5.88	5.88	5.88							
Dissolved Oxygen (ppm)	3.98	2.08	1.57	1.54	1.49							
pH (S.U.s)	7.66	7.63	7.63	7.63	7.63							
Temp. (C)	15.01	15.06	15.16	15.22	15.22							
Turbidity (NTUs)	0	0	0	0	0							
TDS	3.7	3.7	3.7	3.7	3.7							
Salinity	.30	.31	.31	.31	.31							
Depth to Water (ft)	9.26	9.86	10.80	11.0	11.06							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	2.43 mg/L
Nitrite (mg/l)	0.010 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mgl)	363 mg/L
Alkalinity (mg/l)	13 mg/L
Ferrous Iron (mg/l)	0.0 mg/L

COMMENTS: 1505 - Initiate purge @ ~100 ml/min. 1515 - Reduced flow to ~75 ml/min. 1525 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. [redacted] WVA-AW-25-MW-2

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/17/02
SAMPLER(S): BR/DZ

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 11.45

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED											
Date	5/17/02											
Liters	0	500	1000	1500	2000							
Time	0925	0930	0935	0940	0945							
Redox potential	-201	-251	-257	-261	-268							
Conductivity (mohm/cm)	1.27	1.22	1.22	1.22	1.21							
Dissolved Oxygen (ppm)	2.24	.67	.54	.52	.53							
pH (S.U.s)	5.79	6.24	6.26	6.24	6.27							
Temp. (C)	15.96	15.87	15.69	15.68	15.68							
Turbidity (NTUs)	5.3	5.8	3.3	3.7	4.4							
TDS	.8	.8	.8	.8	.8							
Salinity	.06	.05	.05	.05	.05							
Depth to Water (ft)	11.45	11.96	12.10	12.22	12.30							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.01
Nitrite (mg/l)	0
Sulfate (mg/l)	11
Chloride (mgl)	107
Alkalinity (mg/l)	73
Ferrous Iron (mg/l)	[redacted] 2.09

COMMENTS: 0925 - Initiate Purge @ ≈ 100 ml/min. Water smells like sulphur.
0945 - Collected samples.

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-25-MW-3

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/17/02
SAMPLER(S): BK | D2

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 10.21

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
ate	5/17/02										
iters	0	500	1000	1500	2000						
Time	1015	1020	1025	1030	1035						
edox potential	-153	-201	-214	-216	-218						
onductivity (mohm/cm)	1.53	1.41	1.61	1.67	1.68						
Dissolved Oxygen (ppm)	4.23	.97	.71	.67	.65						
H (S.U.s)	7.43	7.34	7.36	7.35	7.37						
p. (C)	14.19	14.04	14.40	14.57	14.83						
Turbidity (NTUs)	57	23.8	6.3	7.5	6.6						
DS	1.0	.9	1.0	1.10	1.1						
alinity	.07	.07	.07	.08	.08						
Depth to Water (ft)	10.21	11.0	11.02	11.02	11.02						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
itrate (mg/l)	~~.03~~ 0.02
Nitrite (mg/l)	0.003
Sulfate (mg/l)	80 LIMIT
hloride (mgl)	114
Alkalinity (mg/l)	240
Ferrous Iron (mg/l)	1.76

COMMENTS: 1015 - Initiate Purge Q = 100 ml/min.
1040 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. AT-92EM-SP-8

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/17/02
SAMPLER(S): PSR/DR

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 4.51

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/17/02										
Liters	0	500	1000	1500	2000	2500	3000				
Time	1310	1315	1320	1325	1330	1335	1340				
Redox potential	32	21	17	16	21	15	14				
Conductivity (mohm/cm)	2.81	2.84	2.84	2.83	2.85	2.84	2.84				
Dissolved Oxygen (ppm)	6.42	2.07	1.77	1.65	2.10	2.14	2.14				
pH (S.U.s)	7.83	7.56	7.54	7.55	7.56	7.56	7.56				
Temp. (C)	17.16	16.04	15.9	15.86	15.89	16.00	16.11				
Turbidity (NTUs)	290	319	285	249	13	9.2	7.0				
TDS	1.8	1.8	1.8	1.8	1.8	1.8	1.8				
Salinity	.14	0.14	.14	.14	.14	.14	.14				
Depth to Water (ft)	4.51	4.57	4.62	4.65	4.65	4.65	4.65				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.10
Nitrite (mg/l)	~~0.000~~ 0.004
Sulfate (mg/l)	80 limit
Chloride (mgl)	248
Alkalinity (mg/l)	157
Ferrous Iron (mg/l)	0.00

COMMENTS: 1310 - Initiate Purge @ ~180 ml/min
1340 - collected sample.

Monitoring Well Purging/Sampling Log

Well No. WVA-GW-MW-43

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/17/02
SAMPLER(S): PSR/DZ

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) ~~34.87~~ 4.02

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/17/02										
Liters	0	500	1000	1500	2000	2500					
Time	1530	1535	1545	1555	1600	1605					
Redox potential	-110	-134	-154	-160	-162	-163					
Conductivity (mohm/cm)	1.91	1.64	1.67	1.66	1.66	1.66					
Dissolved Oxygen (ppm)	1.93	4.80	1.02	0.81	.78	.80					
pH (S.U.s)	7.35	7.30	7.27	7.27	7.27	7.27					
Temp. (C)	16.76	16.65	16.14	16.19	16.37	16.41					
Turbidity (NTUs)	220	7	8.1	5.7	6.4	5.6					
TDS	1.2	1.1	1.1	1.1	1.1	1.1					
Salinity	.09	.08	.08	.08	.08	.08					
Depth to Water (ft)	~~34.02~~	~~34.42~~	34.45	4.48	4.51	4.59					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.03
Nitrite (mg/l)	0.013
Sulfate (mg/l)	41
Chloride (mgl)	73
Alkalinity (mg/l)	222
Ferrous Iron (mg/l)	1.05

COMMENTS: 1530- Initiate Purge @ ≈ 100 ml/min.
1605- Collected sample.

Monitoring Well Purging/Sampling Log

Well No. 83DM-SP-4

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/16/02
SAMPLER(S): K. Stahle, A. Tompkins

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 5.9
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1000	1005	1010	1015	1020	1025	1030	1035	1040	1045	1050
Time	290	186	152	123	92	52	25	7	-4	-5	-4
Redox potential	2.21	2.20	2.20	2.23	2.24	2.28	2.29	2.30	2.29	2.30	2.29
Conductivity (mohm/cm)	3.21	1.61	1.43	1.30	1.29	0.93	0.91	0.92	0.93	0.93	0.92
Dissolved Oxygen (ppm)	7.49	7.46	7.46	7.35	7.33	7.26	7.26	7.25	7.21	7.20	7.20
pH (S.U.s)	11.05	11.06	11.07	11.05	11.08	11.08	11.09	11.10	11.11	11.19	11.20
Temp. (C)	17.4	7.2	2.8	3.1	4.4	3.9	4.4	4.5	4.7	4.6	4.9
Turbidity (NTUs)	1.4	1.4	1.4	1.4	1.4	1.6	1.5	1.5	1.5	1.5	1.5
TDS	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Salinity	6.1	6.18	6.20	6.30	6.40	6.40	6.45	6.45	6.50	6.47	6.45
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.07
Nitrite (mg/l)	0.012 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mgl)	42 mg/L
Alkalinity (mg/l)	56 mg/L
Ferrous Iron (mg/l)	2.8

COMMENTS:
955 - Begin Purging @ ≈ 150 ml/min
1650 - End Purging
- Removed ≈ 2 gal
1053 - Begin Sampling
1110 - End Sampling

Monitoring Well Purging/Sampling Log

Well No. 83DM-SP-3

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/16/02
SAMPLER(S): K. Stahle, A. Tompkins

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 7.6
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	840	845	850	855	900	905	910	915	920		
Time	654	599	532	486	406	376	330	307	305		
Redox potential	2.04	2.03	2.01	2.02	2.09	2.10	2.10	2.13	2.14		
Conductivity (mohm/cm)	5.77	3.74	1.76	1.29	6.88	0.81	0.76	0.75	0.75		
Dissolved Oxygen (ppm)	7.60	7.51	7.49	7.44	7.35	7.33	7.30	7.30	7.30		
pH (S.U.s)	11.21	10.94	10.81	10.83	10.88	11.0	11.B	11.05	11.07		
Temp. (C)	711.0	685.0	705	708	702	711	760	771	768		
Turbidity (NTUs)	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.41	1.4		
TDS	0.1	0.09	0.09	0.1	0.1	0.1	0.1	0.1	0.1		
Salinity	7.9	8.05	8.40	8.70	8.9	9.0	9.1	9.1	9.15		
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.15 mg/L
Nitrite (mg/l)	0.011 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mgl)	43 mg/L
Alkalinity (mg/l)	77 mg/L
Ferrous Iron (mg/l)	0.09 mg/L

COMMENTS:
840 - Begin Purging @ ± .175 ml/min
855 - Decrease Flow Rate
920 - End Purging
- Removed ± 2gal
925 - Begin Sampling
945 - End Sampling

Monitoring Well Purging/Sampling Log

Well No. 92EM-SP-7 MS/MSD

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/16/02
SAMPLER(S): K. Stahle, A. Tompkins.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 6.95'
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1130	1135	1140	1145	1150	1155	1200				
Redox potential	111	93	75	72	73	73	72				
Conductivity (mohm/cm)	2.36	2.42	2.44	2.42	2.42	2.43	2.43				
Dissolved Oxygen (ppm)	6.17	4.03	3.39	3.26	3.11	3.04	3.03				
pH (S.U.s)	8.20	8.0	8.0	8.0	8.01	8.01	8.01				
Temp. (C)	16.83	15.73	15.47	15.40	15.42	15.49	15.50				
Turbidity (NTUs)	51.0	41.1	37.5	37.6	34.3	33.9	33.9				
TDS	1.5	1.6	1.6	1.6	1.6	1.5	1.6				
Salinity	0.12	0.12	0.12	0.12	0.12	0.12	0.12				
Depth to Water (ft)	7.03	7.02	7.08	7.01	7.06	7.02	7.06				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.23 mg/L
Nitrite (mg/l)	0.003 mg/L
Sulfate (mg/l)	0 mg/L
Chloride (mgl)	35 mg/L
Alkalinity (mg/l)	143 mg/L
Ferrous Iron (mg/l)	0.03 mg/L

COMMENTS:
1125 - Begin Purging @ ≈ 150 ml/min
1200 - End Purging
- Removed ≈ 1.5 gal
1203 - Begin Sampling.
1240 - End Sampling
- MS, MSD collected

Monitoring Well Purging/Sampling Log

Well No. 94EM-MW-20

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/30/02
SAMPLER(S): K.S., S.C.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 6"
C Water Level Below Top of Casing (ft.) 6.50
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1000	1005	1010	1015	1020	1025	1030	1035	1040		
Time	704	422	225	160	59	6	-35	-74	-78		
Redox potential	7.93	9.19	7.43	6.54	5.56	4.79	3.89	3.86	3.83		
Conductivity (mohm/cm)	7.49	1.77	1.01	0.95	0.83	0.83	0.87	0.88	0.88		
Dissolved Oxygen (ppm)	4.23	5.16	5.67	5.93	6.12	6.33	6.49	6.58	6.59		
pH (S.U.s)	16.51	15.05	14.90	14.96	14.99	14.95	15.0	15.11	15.07		
Temp. (C)	177.0	248	218	199	164	146	139	132	131		
Turbidity (NTUs)	5.1	5.7	4.7	4.0	3.4	3.1	2.7	2.5	2.5		
TDS	0.44	0.50	0.40	0.30	0.28	0.25	0.20	0.19	0.19		
Salinity	6.55	6.69	6.85	6.98	7.05	7.09	7.13	7.26	7.27		
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	1.88
Nitrite (mg/l)	0.009
Sulfate (mg/l)	15
Chloride (mgl)	993
Alkalinity (mg/l)	64
Ferrous Iron (mg/l)	>3.30 Limit

COMMENTS: 955 - Begin Purge @ ≈ 150 ml/min
1040 - End purge
Begin Sampling
1120 - Sample collected

Monitoring Well Purging/Sampling Log

Well No. 94-EM-MW-19

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 05/30/02
SAMPLER(S): S.C. K.S.

A Total Casing and Screen Length (ft.) [redacted]

B Casing Internal Diameter (in.) 4.0

C Water Level Below Top of Casing (ft.) 5.34

D Volume of Water in Casing - includes annulus (gal.) _____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	8:37	8:42	8:47	8:52	8:57	9:02	9:07				
Redox potential	348	280	212	140	84	52	20				
Conductivity (mohm/cm)	0.938	0.918	0.902	0.895	0.896	0.894	0.896				
Dissolved Oxygen (ppm)	2.00	1.17	0.98	0.89	0.84	0.84	0.84				
pH (S.U.s)	7.53	7.48	7.48	7.48	7.47	7.48	7.47				
Temp. (C)	13.55	13.27	13.22	13.28	13.23	13.21	13.27				
Turbidity (NTUs)	999.0	999.0	799.0	999.0	999.0	999.0	969.0				
TDS	0.60	0.58	0.58	0.57	0.57	0.57	0.57				
Salinity	0.4	0.04	0.04	0.04	0.04	0.04	0.04				
Depth to Water (ft)	5.51	5.61	5.71	5.81	5.88	5.96	6.05				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0
Nitrite (mg/l)	0
Sulfate (mg/l)	30
Chloride (mgl)	164
Alkalinity (mg/l)	167
Ferrous Iron (mg/l)	0.06

COMMENTS: Began purging @ 8:32 @ rate of ≤ 175 ml min^{-1}.
Water very turbid & red in color.
945 - Sample Collected

Monitoring Well Purging/Sampling Log

Well No. 94EM-MW-21

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/30/02
SAMPLER(S): S.C. K.S.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4.0"

C Water Level Below Top of Casing (ft.) 6.24

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	14:05	14:10	14:15	14:20	14:25	14:30	14:35				
Redox potential	417	247	140	87	70	64	62				
Conductivity (mohm/cm)	2.67	2.85	2.82	2.82	2.83	2.84	2.83				
Dissolved Oxygen (ppm)	5.50	1.77	1.05	0.92	0.86	0.83	0.82				
pH (S.U.s)	7.68	7.77	7.81	7.83	7.83	7.84	7.84				
Temp. (C)	16.97	15.48	15.69	15.23	15.34	15.29	15.24				
Turbidity (NTUs)	376.0	385.0	304.0	221.0	170.0	170.0	172.0				
TDS	1.7	1.8	1.8	1.8	1.8	1.8	1.8				
Salinity	0.13	0.14	0.14	0.14	0.14	0.14	0.14				
Depth to Water (ft)	6.44	6.70	8.96	9.14	9.35	9.41	7.53				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	2.43 Limit
Nitrite (mg/l)	0.375 Limit
Sulfate (mg/l)	80 limit
Chloride (mgl)	528
Alkalinity (mg/l)	146
Ferrous Iron (mg/l)	0.15

COMMENTS: Began purge @ 14:02 @ a rate of 175 ml min^{-1}.
1530- Sample Collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-32

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/15/02
SAMPLER(S): K. Stahl, A. Tompkins.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 10.13
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1505	1510	1515	1520	1525	1530	1535	1540			
Redox potential	148	145	134	134	135	136	136	136			
Conductivity (mohm/cm)	5.49	5.01	4.12	3.69	3.65	3.61	3.63	3.62			
Dissolved Oxygen (ppm)	2.54	1.67	1.37	2.18	2.39	2.42	2.39	2.40			
pH (S.U.s)	6.95	7.07	7.07	7.11	7.11	7.11	7.11	7.11			
Temp. (C)	15.57	15.01	14.91	14.67	14.65	14.57	14.59	14.59			
Turbidity (NTUs)	0	1.2	0.6	7.8	9.7	9.9	9.0	9.1			
TDS	3.5	3.3	2.6	2.4	2.3	2.3	2.3	2.3			
Salinity	0.29	0.27	0.21	0.18	0.18	0.18	0.18	0.18			
Depth to Water (ft)	10.0	10.05	10.1	10.15	10.2	10.2	10.2	10.25			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.07 mg/L
Nitrite (mg/l)	0.145 mg/L
Sulfate (mg/l)	46 mg/L
Chloride (mgl)	200 mg/L
Alkalinity (mg/l)	138 mg/L
Ferrous Iron (mg/l)	0.01 mg/L

COMMENTS: 1500- Begin Purging @ ≈ 175 ml/min
1540 - End Purging
- Pumped out ≈ 1.5 gal
- Begin Sampling
1630- End Sampling.

Monitoring Well Purging/Sampling Log

Well No. 86EM-SP-1B

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/15/02
SAMPLER(S): K. Stahle, A. TempKins

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2

C Water Level Below Top of Casing (ft.) 6.9

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	940	945	950	955	1000	1005	1010	1015			
Redox potential	503	462	427	415	394	372	371	370			
Conductivity (mohm/cm)	0.674	0.595	0.567	0.573	0.587	0.602	0.602	0.603			
Dissolved Oxygen (ppm)	5.27	4.19	3.58	3.46	3.33	3.19	3.13	3.12			
pH (S.U.s)	7.19	7.24	7.25	7.27	7.28	7.29	7.27	7.29			
Temp. (C)	13.91	14.36	14.54	14.71	14.83	14.92	14.77	14.80			
Turbidity (NTUs)	46.4	68.0	45.8	18.4	15.9	11.9	11.7	11.9			
TDS	.41	.37	.36	.38	.38	.39	.39	.39			
Salinity	.03	.02	.02	.02	.02	.03	.03	.03			
Depth to Water (ft)	7.2	7.25	7.3	7.35	7.30	7.25	7.25	7.25			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.07 mg/L
Nitrite (mg/l)	0.098 mg/L
Sulfate (mg/l)	6.0 mg/L
Chloride (mgl)	47 mg/L
Alkalinity (mg/l)	159 mg/L
Ferrous Iron (mg/l)	0.01 mg/L

COMMENTS: 935- Begin Purging @ ≈ 175 ml/min
1015 - End Purging
- Removed ≈ 1.5 gal
- Begin Sampling.
1105 - End Sampling

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-47

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/15/02
SAMPLER(S): K. Stahle, A. Tompkins

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 4.7
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1115	1120	1125	1130	1135	1140	1145	1150	1155		
Redox potential	-42	-73	-112	-132	-152	-167	-172	-173	-173		
Conductivity (mohm/cm)	1.37	0.95	1.08	1.24	1.38	1.49	1.53	1.53	1.53		
Dissolved Oxygen (ppm)	6.22	5.22	3.99	2.93	2.10	1.39	1.19	0.96	0.93		
pH (S.U.s)	7.94	7.76	7.72	7.71	7.72	7.76	7.73	7.72	7.73		
Temp. (C)	13.84	13.93	13.77	13.76	13.86	13.76	13.63	13.88	13.82		
Turbidity (NTUs)	967	986	992	986	995	974	963	>999	>999		
TDS	0.8	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.0		
Salinity	.05	.04	.05	.06	.06	.07	.07	.07	.07		
Depth to Water (ft)	5.55	5.95	6.35	6.50	6.60	6.80	6.80	6.75	6.70		

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.01 mg/L
Nitrite (mg/l)	0.203 mg/L
Sulfate (mg/l)	1.0 mg/L
Chloride (mgl)	34 mg/L
Alkalinity (mg/l)	152 mg/L
Ferrous Iron (mg/l)	1.85

COMMENTS:
1115 - Begin Purging ≈ 200 ml/min
1120 - decreased Flow Rate to ≈ 175 ml/min.
- Purge water is clear, Turbidity readings may be inaccurate.
1200 - End Purging
- Pumped out ≈ 2 gal
- Begin Sampling.
1220 - End Sampling

Monitoring Well Purging/Sampling Log

Well No. ~~86EM-SP-6~~ 86EM-SP-6

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/15/02
SAMPLER(S): K. Stahle, A. Tompkins.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 9.45
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
ate											
iters											
Time	1320	1325	1330	1335	1340	1345	1350				
edox potential	106	72	61	57	50	61	50				
onductivity (mohm/cm)	2.74	3.10	3.10	3.10	3.10	3.09	3.10				
Dissolved Oxygen (ppm)	6.28	1.65	1.14	1.01	1.03	1.10	1.07				
H (S.U.s)	7.33	7.25	7.25	7.25	7.25	7.25	7.25				
mp. (C)	14.05	13.57	13.49	13.29	13.21	13.23	13.24				
Turbidity (NTUs)	35.6	67.3	38.5	16.2	11.3	11.7	11.6				
DS	1.9	2.0	2.0	2.0	2.0	2.0	2.0				
alinity	0.14	0.15	0.15	0.15	0.15	0.15	0.15				
Depth to Water (ft)	9.55	9.55	9.60	9.70	9.70	9.75	9.80				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.57 mg/L
Nitrite (mg/l)	0.071 mg/L
Sulfate (mg/l)	80 mg/L
Chloride (mg/l)	36 mg/L
Alkalinity (mg/l)	186 mg/L
Ferrous Iron (mg/l)	0.01 mg/L

COMMENTS: 1320 - Begin Purging @ ≈ 175 ml/min
1330 - End Purging
- Pumped out ≈ 1.5 gal
- Begin Sampling.
1445 - End Sampling
- Collected Duplicate Sample X-1

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-29

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-24-02
SAMPLER(S): DEKOSKIE

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 10.44

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	.5	1.0	1.5	2.0							
Time	1200	1205	1210	1215							
Redox potential	81	53	49	49							
Conductivity (mohm/cm)	4.38	4.40	4.39	4.39							
Dissolved Oxygen (ppm)	3.83	1.09	1.08	1.04							
pH (S.U.s)	6.59	6.97	6.86	6.84							
Temp. (C)	18.30	18.26	18.23	18.21							
Turbidity (NTUs)	0.8	ø	ø	ø							
TDS	2.8	2.8	2.8	2.8							
Salinity	0.2	0.2	0.2	0.2							
Depth to Water (ft)	10.71	10.99	11.12	11.15							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.55
Nitrite (mg/l)	0.006
Sulfate (mg/l)	80.1
Chloride (mgl)	935.0
Alkalinity (mg/l)	116.0
Ferrous Iron (mg/l)	0.00

COMMENTS: 1200 Start Purge Q = 100 ml/min
1220 Collect Samples

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-135-MW-4

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-24-02
SAMPLER(S): DEKOSKIE

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 12.15

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-24-02											
Liters	5	1.0	1.5	2.0							
Time	0935	0940	0945	0950							
Redox potential	129	103	104	103							
Conductivity (mohm/cm)	1.75	1.63	1.63	1.63							
Dissolved Oxygen (ppm)	2.65	0.69	0.63	0.62							
pH (S.U.s)	6.97	7.29	7.27	7.25							
Temp. (C)	17.79	17.74	17.69	17.62							
Turbidity (NTUs)	ø	ø	ø	ø							
TDS	1.1	1.0	1.0	1.0							
Salinity	0.1	0.1	0.1	0.1							
Depth to Water (ft)	12.30	12.35	12.39	12.42							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	>2.43
Nitrite (mg/l)	0.016
Sulfate (mg/l)	11.0
Chloride (mgl)	293.0
Alkalinity (mg/l)	110
Ferrous Iron (mg/l)	0.00

COMMENTS: 0930 Start purge. Q = 100. ml/min
0950 Sample # MS/MSD Also

Monitoring Well Purging/Sampling Log

Well No. ~~KW~~ AW - MW - 20

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-21-02
SAMPLER(S): DeKoskie, Rabideau

A Total Casing and Screen Length (ft.) _____

B Casing Internal Diameter (in.) _____

C Water Level Below Top of Casing (ft.) ~~7.20~~

D Volume of Water in Casing - includes annulus (gal.) _____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-22-02											
Liters	0										
Time	1325	1330	1335	DRY							
Redox potential	91	105	110								
Conductivity (mohm/cm)	.460	.430	.40								
Dissolved Oxygen (ppm)	7.99	5.75	4.26								
pH (S.U.s)	5.95	5.63	5.39								
Temp. (C)	15.3	16.6	16.8								
Turbidity (NTUs) 860	~~860~~	999	1000								
TDS	.29	.27	.27								
Salinity	0.0	0.0	0								
Depth to Water (ft)	7.45	7.45	7.45								

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	2.43 4 LIMIT
Nitrite (mg/l)	.08
Sulfate (mg/l)	84 80 LIMIT
Chloride (mgl)	84
Alkalinity (mg/l)	106
Ferrous Iron (mg/l)	.18

COMMENTS: 1325 Start purge Q = 100 ml/min
1340 - Purged well dry.

5/23/02
0800 - ATW = 7.65 (Top of pump). Initiate purge Q = 100 ml/min.
0820 - Collected sample. Not enough vol to collect everything. Collected: VOCs, Gases, Nap.

Monitoring Well Purging/Sampling Log

Well No. WVA-Aw-MW-30 MS, MSD

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/28/02
SAMPLER(S): K.S., S.C.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2"

C Water Level Below Top of Casing (ft.) 6.75

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	9:43	9:53	9:58	10:03	10:08	10:13	10:18	10:23	10:28		
Redox potential	337	244	235	218	176	149	136	132	132		
Conductivity (mohm/cm)	7.94	7.30	7.29	7.27	7.12	6.38	6.01	6.13	6.35		
Dissolved Oxygen (ppm)	2.68	1.05	0.89	0.89	0.85	1.33	1.68	1.72	1.52		
pH (S.U.s)	7.29	7.13	7.08	7.06	7.03	7.08	7.10	7.09	7.05		
Temp. (C)	14.14	15.49	15.38	15.37	15.44	15.58	15.56	15.63	15.61		
Turbidity (NTUs)	33.0	33.0	34.6	33.4	35.5	37.0	39.6	39.6	41.0		
TDS	4.9	4.6	4.6	4.6	4.4	3.9	3.8	3.9	4.0		
Salinity	0.42	0.39	0.39	0.39	0.38	0.33	0.32	0.33	0.34		
Depth to Water (ft)	7.54	7.80	7.91	8.02	8.09	8.20	8.32	8.47	8.54		

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	>2.43 limit
Nitrite (mg/l)	0.047
Sulfate (mg/l)	>80 limit
Chloride (mgl)	1,824
Alkalinity (mg/l)	104
Ferrous Iron (mg/l)	0

COMMENTS: Began pumping @ 9:43, rate of purge ≈ 150 ml/min. 1150 - Sample collected MS, MSD, collected

Monitoring Well Purging/Sampling Log

Well No. WVA-Aw-mw-23

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/28/02
SAMPLER(S): K.S., S.C.

A Total Casing and Screen Length (ft.) 12.5'
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 7.73'
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1250	1255	1300	1305	1310	1315	1320				
Redox potential	593	258	192	157	126	134	135				
Conductivity (mohm/cm)	0.261	0.247	0.237	0.234	0.229	0.228	0.227				
Dissolved Oxygen (ppm)	6.74	3.82	2.92	2.54	2.12	1.91	1.81				
pH (S.U.s)	7.89	7.49	7.47	7.34	7.30	7.31	7.30				
Temp. (C)	19.01	17.52	17.27	17.25	17.36	17.56	17.60				
Turbidity (NTUs)	86.0	83.2	84.1	82.4	83.9	82.1	82.5				
TDS	0.17	0.16	0.15	0.15	0.15	0.15	0.15				
Salinity	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
Depth to Water (ft)	8.2	8.35	8.35	8.48	8.55	8.55	8.60				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.51
Nitrite (mg/l)	0.036
Sulfate (mg/l)	29
Chloride (mgl)	0.0
Alkalinity (mg/l)	49
Ferrous Iron (mg/l)	0.0

COMMENTS: 1245 - Begin Purge @ ≈ 175 ml/min
1320 - End Purge
- removed ≈ 1.5 gal
- Begin Sampling
1430 - Sample Collected

Monitoring Well Purging/Sampling Log

Well No. WVA-Aw-MW-24

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/28/02
SAMPLER(S): K.S., S.C.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 2"
C Water Level Below Top of Casing (ft.) 3.4 DTP
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters	1455	—	—	—	—	—	1525				
Time	—										
Redox potential	—										
Conductivity (mohm/cm)	—										
Dissolved Oxygen (ppm)	—										
pH (S.U.s)	—										
Temp. (C)	—										
Turbidity (NTUs)	—										
TDS	—										
Salinity	—										
Depth to Water (ft)	BTP										

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.13
Nitrite (mg/l)	0
Sulfate (mg/l)	0
Chloride (mgl)	61
Alkalinity (mg/l)	375
Ferrous Iron (mg/l)	0.35

COMMENTS: 1455 - Water level Below Pump
- ~~Purge~~
- Field parameters NOT Taken due To oil in well
1525 - End Purge
- Begin Sampling.
1630 - Well went Dry
- Collected All except 1 Liter For SVOC

Monitoring Well Purging/Sampling Log

Well No. WVA-B35-PW-1

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/24/02
SAMPLER(S): S.C K.S.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 6.0

C Water Level Below Top of Casing (ft.) 8.57

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/24/02										
Liters											
Time	1320	1325	1330	1335	1340	1345					
Redox potential	-237	-272	-283	-291	-296	-301					
Conductivity (mohm/cm)	1.94	1.87	1.86	1.85	1.85	1.84					
Dissolved Oxygen (ppm)	0.85	0.70	0.68	0.67	0.66	0.66					
pH (S.U.s)	7.96	7.99	7.97	7.97	7.94	7.96					
Temp. (C)	17.48	17.30	17.36	17.30	17.42	17.93					
Turbidity (NTUs)	>999	42.0	38.6	39.7	39.3	40.7					
TDS	1.2	1.2	1.2	1.2	1.2	1.2					
Salinity	0.09	0.09	0.09	0.09	0.09	0.09					
Depth to Water (ft)	8.84	9.00	9.16	9.27	9.47	9.52					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.05
Nitrite (mg/l)	0.013
Sulfate (mg/l)	2
Chloride (mgl)	83
Alkalinity (mg/l)	289
Ferrous Iron (mg/l)	6

COMMENTS: Began pumping @ 1310 @ ≈ 150 ml/min
Turbidity reading seems inaccurate. HORIBA reads ERR 3
Reading for turbidity 999. Turbidity reading normal again for 1325 reading.
Visible sheen observed on purge water
1415 - Sample Collected

Monitoring Well Purging/Sampling Log

Well No. 93EM - RW-2

MMA

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/24/02
SAMPLER(S): K.S. / S.C

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4"

C Water Level Below Top of Casing (ft.) 12.6

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	855	900	905	910	915	920	925	930	935		
Redox potential	352	255	99	60	31	-10	-46	-80	-105		
Conductivity (mohm/cm)	1.33	0.99	0.729	0.706	0.700	0.696	0.695	0.694	0.694		
Dissolved Oxygen (ppm)	6.06	1.98	0.95	0.75	0.71	0.68	0.68	0.67	0.66		
pH (S.U.s)	7.77	7.62	7.55	7.53	7.54	7.54	7.54	7.53	7.53		
Temp. (C)	13.99	13.38	13.00	12.93	12.88	12.88	12.88	12.91	12.90		
Turbidity (NTUs)	17.4	21.3	20.09	21.4	19.8	19.8	19.8	19.6	18.8		
TDS	0.8	0.6	0.46	0.45	0.45	0.45	0.44	0.44	0.44		
Salinity	0.06	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03		
Depth to Water (ft)	12.09	12.26	12.35	12.41	12.41	12.44	12.45	12.51	12.52		

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.03
Nitrite (mg/l)	0.004
Sulfate (mg/l)	33
Chloride (mgl)	116
Alkalinity (mg/l)	156
Ferrous Iron (mg/l)	0.26

COMMENTS: 855 - Begin Purging @ ≈ 175 ml/min
1000 - Sample collected

Monitoring Well Purging/Sampling Log

Well No. WVA-Aw-35-MW-8

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/29/02
SAMPLER(S): S.C. K.S.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4.0

C Water Level Below Top of Casing (ft.) 7.45

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Rate											
Liters											
Time	1120	1125	1130	1135	1140	1145	1150	1155			
Redox potential	189	47	-21	-44	-56	-53	-50	-51			
Conductivity (mohm/cm)	3.22	3.33	3.35	3.35	3.35	3.36	3.35	3.36			
Dissolved Oxygen (ppm)	3.39	0.97	0.77	0.73	0.71	0.72	0.72	0.73			
pH (S.U.s)	8.32	8.29	8.29	8.29	8.30	8.30	8.30	8.30			
Temp. (C)	17.31	16.58	16.37	16.35	16.33	16.24	16.33	16.34			
Turbidity (NTUs)	104.0	96.7	98.5	91.9	93.1	95.4	227	227			
TDS	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1			
Salinity	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17			
Depth to Water (ft)	7.70	8.00	8.29	8.60	8.84	9.19	9.44	9.45			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.03
Nitrite (mg/l)	0.004
Sulfate (mg/l)	8
Chloride (mgl)	476
Alkalinity (mg/l)	68
Ferrous Iron (mg/l)	0

COMMENTS: Began pumping @ 1118. Initiated purge @ 175 ml/min
1230 - Sample Collected
- Removed ± 2.5 gal

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-22

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): PMP/JD

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 8.04

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-22-02											
Liters											
Time	1405	1410	1415	1420	1425						
Redox potential	108	96	86	85	81						
Conductivity (mohm/cm)	2.05	2.08	2.08	2.07	2.08						
Dissolved Oxygen (ppm)	3.48	1.25	1.22	1.23	1.21						
pH (S.U.s)	6.71	6.71	6.72	6.73	6.73						
Temp. (C)	13.82	13.80	13.20	13.20	13.20						
Turbidity (NTUs)	1.0	1.0	1.0	1.0	1.0						
TDS	1.3	1.3	1.3	1.3	1.3						
Salinity	0.10	0.10	0.1	0.1	.1						
Depth to Water (ft)	8.30	8.56	8.60	8.60	8.60						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.43
Nitrite (mg/l)	.019
Sulfate (mg/l)	54
Chloride (mgl)	354
Alkalinity (mg/l)	188
Ferrous Iron (mg/l)	.02

COMMENTS: 1400 Start Purge, Q = 100 ml/min
1430 - collected Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-91

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): [illegible]

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 8.25'

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-22-02											
Liters	0.5	1.0	1.5	2.0	2.5						
Time	1505	1510	1515	1520	1525						
Redox potential	70	39	16	16	16						
Conductivity (mohm/cm)	1.32	1.33	1.28	1.32	1.31						
Dissolved Oxygen (ppm)	3.65	0.62	0.60	0.59	0.56						
pH (S.U.s)	6.07	6.36	6.54	6.59	6.61						
Temp. (C)	15.87	14.80	14.88	14.75	14.71						
Turbidity (NTUs)	Ø	Ø	Ø	Ø	Ø						
TDS	0.9	0.8	0.8	0.8	0.8						
Salinity	0.1	0.1	0.1	0.1	0.1						
Depth to Water (ft)	8.42	8.62	8.62	8.65	8.68						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.11
Nitrite (mg/l)	0
Sulfate (mg/l)	56
Chloride (mgl)	194
Alkalinity (mg/l)	140
Ferrous Iron (mg/l)	.16

COMMENTS: 1500 - Initiate Purge @ ~100 ml/min.
1520 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. 93EM-SP-13

MMA

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/23/02
SAMPLER(S): PSR/SD

A Total Casing and Screen Length (ft.) _____

B Casing Internal Diameter (in.) _____

C Water Level Below Top of Casing (ft.) 8.60 DTP = 8.25

D Volume of Water in Casing - includes annulus (gal.) _____

PARAMETER	ACCUMULATED VOLUME PURGED											
Date												
Liters	.5	1	1.5/2.5	2.0	2.5							
Time	1515	1520	1532	1530	1535							
Redox potential	-149	-153	-156	-158	-159							
Conductivity (mohm/cm)	.627	.623	.629	.624	.624							
Dissolved Oxygen (ppm)	4.38	5.35	1.01	.97	.96							
pH (S.U.s)	7.98	5.35	5.52	5.61	5.69							
Temp. (C)	16.94	16.01	15.98	15.83	15.78							
Turbidity (NTUs)	ø	ø	ø	ø	ø							
TDS	0.41	.40	0.40	0.40	0.40							
Salinity	0.0	0.0	0.0	0.0	0.0							
Depth to Water (ft)												

1.49 D.O.

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.03
Nitrite (mg/l)	.005
Sulfate (mg/l)	8
Chloride (mgl)	83
Alkalinity (mg/l)	164
Ferrous Iron (mg/l)	.01

COMMENTS: 1515 - Initiate Purge @ 100 ml/min.
1535 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-RW-MW-27

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 9/23/02
SAMPLER(S): BP/SD

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 9.11' (Top of Pump)

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	9/23/02										
Liters	.4	.8	1.2	1.6	2.1						
Time	0940	0945	0950	0955	1000						
Redox potential	-65	-64	-65	-66	-67						
Conductivity (mohm/cm)	1.96	1.73	1.65	1.64	1.67						
Dissolved Oxygen (ppm)	1.39	1.32	2.09	2.00	2.02						
pH (S.U.s)	5.55	5.79	6.30	6.29	6.31						
Temp. (C)	14.70	13.99	14.22	14.20	14.22						
Turbidity (NTUs)	Ø	2.2	Ø	Ø	Ø						
TDS	1.2	1.1	1.0	1.1	1.1						
Salinity	0.1	0.1	0.1	0.1	0.1						
Depth to Water (ft)	9.13	9.16	9.18	9.18	9.18						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.21
Nitrite (mg/l)	.001
Sulfate (mg/l)	1
Chloride (mgl)	3.8
Alkalinity (mg/l)	192
Ferrous Iron (mg/l)	1.72

COMMENTS: 0930 - Initiate purge @ 200 ml/min. 80s 400
1000 - Collected sample

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-135-MW-2

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-23-02
SAMPLER(S): DEKOSKIE, Rabideau

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 4.20'

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-23-02											
Liters	.5										
Time	1400	1405	1410	1415	1420	1425	1430	1435	1440		
Redox potential	49	23	24	32	30	31	28	27	26		
Conductivity (mohm/cm)	1.51	.629	.616	.662	.714	.794	.886	.890	.895		
Dissolved Oxygen (ppm)	5.23		5.39	4.87	4.85	4.90	4.86	4.80	4.81		
pH (S.U.s)	6.44	4.31	4.33	4.93	5.31	5.02	5.22	5.21	5.2		
Temp. (C)	16.37	14.62	14.66	14.63	14.93	14.52	14.59	14.50	14.40		
Turbidity (NTUs)	606	999	999	766	404	172	170	168	163		
TDS	1.0	0.40	0.39	.42	.46	.51	.55	.55	.55		
Salinity	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0	0		
Depth to Water (ft)	4.20	6.70	6.25	6.25	6.25	6.25	6.25	6.25	6.25		

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	1.26
Nitrite (mg/l)	.065
Sulfate (mg/l)	9
Chloride (mgl)	233
Alkalinity (mg/l)	58
Ferrous Iron (mg/l)	1.01

COMMENTS: 1400 - Initiate Purge @ ≈ 100 ml/min
1440 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-26

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/22/02
SAMPLER(S): PSL/JD

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 10.65'

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
ate											
iters	.5	1	1.5	2	2.5						
Time	1130	1135	1140	1145	1150						
edox potential	76	66	60	59	58						
onductivity (mohm/cm)	2.24	2.39	2.39	2.41	2.40						
Dissolved Oxygen (ppm)	3.11	2.02	1.46	1.44	1.43						
H (S.U.s)	6.50	6.56	5.40	5.40	5.39						
mp. (C)	14.10	14.07	13.57	13.52	13.51						
Turbidity (NTUs)	1.0	1.0	ø	ø	ø						
DS	1.5	1.6	1.5	1.5	1.5						
alinity	0.1	0.1	0.1	0.1	0.1						
Depth to Water (ft)											

FIELD ANALYSIS

ANALYTE	CONCENTRATION
itrate (mg/l)	.28
Nitrite (mg/l)	.020
ulfate (mg/l)	6
hloride (mgl)	550
Alkalinity (mg/l)	113
errous Iron (mg/l)	.17

COMMENTS: 1130 - Initiate Purge @ 2100 ml/min.
1150 - Collected Sample plus duplicate SD-2

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-MW-B1D-11C

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/29/02
SAMPLER(S): S.C. K.S.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 8.0"

C Water Level Below Top of Casing (ft.) 6.91

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/29/02										
Liters											
Time	830	8:35	8:40	8:45	8:50	8:55	9:00	9:05			
Redox potential	327	216	123	17	-50	-79	-100	-114			
Conductivity (mohm/cm)	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.37			
Dissolved Oxygen (ppm)	7.21	7.40	6.92	6.38	5.90	5.58	5.19	4.83			
pH (S.U.s)	7.56	7.57	7.58	7.57	7.59	7.59	7.60	7.60			
Temp. (C)	20.81	20.81	20.82	20.82	20.83	20.83	20.84	20.83			
Turbidity (NTUs)	999	38.7	38.2	37.7	37.2	37.1	37.0	36.8			
TDS	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9			
Salinity	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06			
Depth to Water (ft)	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0
Nitrite (mg/l)	0.002
Sulfate (mg/l)	0
Chloride (mgl)	20
Alkalinity (mg/l)	548
Ferrous Iron (mg/l)	0.57

COMMENTS: Began purge @ 8:26. Purge rate ≈ 175 ml/min
Initial Turbidity reading (999.0 NTU) was incorrect.
1000- Sample Collected
- Duplicate SAMPLE ~~(X-5)~~ (X-2) Collected

Monitoring Well Purging/Sampling Log Well No. B-121-S

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/29/02
SAMPLER(S): K.S., S.C.

A Total Casing and Screen Length (ft.) —
B Casing Internal Diameter (in.) 8"
C Water Level Below Top of Casing (ft.) 7.45
D Volume of Water in Casing - includes annulus (gal.) —

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1025	1030	1035	1040	1045	1050	1055				
Redox potential	346	217	36	-25	-120	-178	-185				
Conductivity (mohm/cm)	3.51	3.63	3.64	3.65	3.65	3.64	3.64				
Dissolved Oxygen (ppm)	8.86	2.02	0.83	0.71	0.63	0.61	0.60				
pH (S.U.s)	6.71	7.39	7.86	7.94	8.08	8.12	8.12				
Temp. (C)	68.85	18.36	18.07	18.09	18.11	18.11	18.10				
Turbidity (NTUs)	69.0	51.8	42.1	45.3	47.5	52.6	53.2				
TDS	2.3	2.3	2.3	2.3	2.3	2.3	2.3				
Salinity	0.18	0.18	0.18	0.18	0.18	0.18	0.18				
Depth to Water (ft)	7.45	7.47	7.49	7.50	7.51	7.52	7.52				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.0
Nitrite (mg/l)	0.0
Sulfate (mg/l)	> 80 LIMIT
Chloride (mgl)	819
Alkalinity (mg/l)	80
Ferrous Iron (mg/l)	> 3.30 LIMIT

COMMENTS:
1025- Initiate Purge @ ≈ 150ml/min
1055- End Purge
- Begin Sampling
1145- Sample Collected
- Duplicate Sample (X-3) collected

Monitoring Well Purging/Sampling Log

Well No. B-121-N

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/29/02
SAMPLER(S): K.S. S.C.

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 6.0"

C Water Level Below Top of Casing (ft.) 7.81

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/29/02										
Liters	~~13:15~~										
Time	13:15	13:20	13:25	13:30	13:35	13:40	13:45	13:50			
Redox potential	348	91	-19	-87	-131	-68	-189	-205			
Conductivity (mohm/cm)	0.795	0.789	0.780	0.780	0.778	0.777	0.778	0.779			
Dissolved Oxygen (ppm)	5.42	1.09	0.79	0.74	0.70	0.73	0.72	0.72			
pH (S.U.s)	7.92	8.14	8.17	8.19	8.20	8.20	8.20	8.20			
Temp. (C)	16.25	15.96	15.82	15.85	15.85	15.92	15.95	15.96			
Turbidity (NTUs)	999.0	565.0	375.0	343.0	325.0	623.0	631.0	637.0			
TDS	0.51	0.50	0.50	0.50	0.50	0.50	0.50	0.50			
Salinity	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03			
Depth to Water (ft)	7.83	7.83	7.83	7.83	7.83	7.83	7.83	7.83			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.02
Nitrite (mg/l)	0
Sulfate (mg/l)	25
Chloride (mgl)	128
Alkalinity (mg/l)	176
Ferrous Iron (mg/l)	0.18

COMMENTS: Began purging @ 13:10 @ rate of ≈ 195 ml/min
Changed battery in Horiba prior to start of purge.
Water initialy very cloudy.
1420 - Sample collected

Monitoring Well Purging/Sampling Log

Well No. WVA-AW-135-MW-1

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/29/02
SAMPLER(S): K.S. S.C.

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4"
C Water Level Below Top of Casing (ft.) 52.70
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date											
Liters											
Time	1455	1500	1505	1510	1515	1520	1525	1530	1535		
Redox potential	275	162	-43	-84	-109	-128	-127	-125	-123		
Conductivity (mohm/cm)	0.901	0.876	0.843	0.839	0.837	0.844	0.843	0.843	0.843		
Dissolved Oxygen (ppm)	4.88	2.87	1.29	1.12	1.03	0.97	0.91	0.89	0.87		
pH (S.U.s)	9.20	9.86	10.05	10.02	9.98	9.95	9.87	9.82	9.84		
Temp. (C)	20.28	19.52	19.17	19.13	19.12	19.15	19.16	19.18	19.19		
Turbidity (NTUs)	29.7	26.5	61.0	59.8	46.4	46.6	195	278	285		
TDS	0.58	0.56	0.54	0.54	0.54	0.54	0.54	0.54	0.54		
Salinity	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04		
Depth to Water (ft)	53.0	53.17	53.65	53.85	54.0	54.35	54.95	55.0	55.15		

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.09
Nitrite (mg/l)	0.011
Sulfate (mg/l)	9.0
Chloride (mgl)	127
Alkalinity (mg/l)	244
Ferrous Iron (mg/l)	0.01

COMMENTS: 1450 - Initiate Purge @ ≈ 150 ml/min
1535 - End Purge
- Begin Sampling
1615 - Sample Collected

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-27

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-17-02
SAMPLER(S): DEKOSKIE, FERGUSON

A Total Casing and Screen Length (ft.) _____

B Casing Internal Diameter (in.) _____

C Water Level Below Top of Casing (ft.) 1.60

D Volume of Water in Casing - includes annulus (gal.) _____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-17-02											
Liters	0	0.5	1	1.5	2						
Time	0945	0950	1000	1005	1010						
Redox potential	70	67	69	69	69						
Conductivity (mohm/cm)	2.19	2.09	2.09	2.09	2.09						
Dissolved Oxygen (ppm)		6.38	5.85	5.83	5.80						
pH (S.U.s)	6.76	6.85	6.87	6.87	6.87						
Temp. (C)	13.85	14.12	14.19	14.20	14.22						
Turbidity (NTUs)	29.5	27.6	19.8	19.5	19.1						
TDS	1.4	1.3	1.3	1.3	1.3						
Salinity	0.1	0.1	0.1	0.1	0.1						
Depth to Water (ft)	2.18	2.30	2.24	2.24	224						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	1.55
Nitrite (mg/l)	0.000
Sulfate (mg/l)	>80.0
Chloride (mgl)	405.0
Alkalinity (mg/l)	170.0
Ferrous Iron (mg/l)	0.03

COMMENTS: 0945 Start purge 1010 Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-26

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-17-02
SAMPLER(S): DEROSKIE, FERGUSON

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 0.08

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-17-02											
Liters	Ø	0.5	1	1.5	2.0	2.5					
Time	0840	0845	0850	0855	0900	0905					
Redox potential	-98	-109	-117	-125	-126	-126					
Conductivity (mohm/cm)	2.36	2.37	2.38	2.38	2.39	2.39					
Dissolved Oxygen (ppm)	2.40	1.04	0.71	0.45	0.40	0.39					
pH (S.U.s)	7.26	6.81	6.78	6.74	6.75	6.75					
Temp. (C)	12.21	12.19	12.18	12.17	12.17	12.17					
Turbidity (NTUs)	421	284	89.0	53.4	38.4	34.1					
TDS	1.5	1.5	1.5	1.5	1.5	1.5					
Salinity	0.1	0.1	0.1	0.1	0.1	0.1					
Depth to Water (ft)	0.68	0.68	0.69	0.70	0.70	0.70					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.00
Nitrite (mg/l)	0.003
Sulfate (mg/l)	>80.0
Chloride (mg/l)	450.0
Alkalinity (mg/l)	212.0
Ferrous Iron (mg/l)	2.24

COMMENTS: Start purge 0837 0905 Sample

Sulfate was over detection limit.

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-ESE-2

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-16-07
SAMPLER(S): DEKOSKIE, Ferguson

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 2.33

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-16-07											
Liters	0	0.5	1.0	1.5	2.0	2.5	3.0				
Time	1500	1505	1510	1515	1520	1525	1530				
Redox potential	79	-6	-16	-62	-91	-96	-97				
Conductivity (mohm/cm)	2.05	2.03	2.01	2.01	2.05	2.06	2.07				
Dissolved Oxygen (ppm)	7.31	4.91	3.47	2.91	1.61	1.56	1.57				
pH (S.U.s)	6.21	6.62	6.93	6.92	6.88	6.86	6.85				
Temp. (C)	12.12	11.71	11.42	11.81	11.94	11.92	11.91				
Turbidity (NTUs)	113	51.0	17.8	26.4	31.8	22.1	22.5				
TDS	1.3	1.3	1.3	1.3	1.3	1.3	1.3				
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
Depth to Water (ft)	2.41	3.69	5.03	5.33	5.49	5.54	5.61				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.08
Nitrite (mg/l)	0.015
Sulfate (mg/l)	32
Chloride (mgl)	358
Alkalinity (mg/l)	128
Ferrous Iron (mg/l)	3.29

COMMENTS: Start 1455 1530 Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-ESE-8

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-16-02
SAMPLER(S): DeKoskie, Ferguson

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 5.43

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-16-02											
Liters	0	.5	1	1.5	2	2.5	3.0	3.5			
Time	0925	0930	0935	0940	0945	0950	0955	1000			
Redox potential	-11	-21	-36	-49	-57	-60	-61	-60			
Conductivity (mohm/cm)	3.22	3.10	2.14	2.14	2.14	2.13	2.15	2.15			
Dissolved Oxygen (ppm)	9.46	5.31	4.29	3.88	3.40	2.36	2.30	2.29			
pH (S.U.s)	6.57	6.59	6.64	6.71	6.91	6.94	6.96	6.97			
Temp. (C)	12.41	12.35	12.20	12.17	11.99	11.91	11.86	11.80			
Turbidity (NTUs)	59.3	62.1	23.5	17.6	15.2	13.8	15.1	14.2			
TDS	2.6	2.1	1.4	1.4	1.4	1.4	1.4	1.4			
Salinity	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10			
Depth to Water (ft)	5.43	5.90	6.22	6.36	6.49	6.53	6.66	6.70			

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.09
Nitrite (mg/l)	0.022
Sulfate (mg/l)	
Chloride (mgl)	320
Alkalinity (mg/l)	273
Ferrous Iron (mg/l)	1.12

COMMENTS: 0920 Start purge Sample 1000

Monitoring Well Purging/Sampling Log

Well No. ~~7.93~~ 38 WVA-SA-MW-38

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-15-02
SAMPLER(S): DeKoskie, Ferguson

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 7.93

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-15-02											
Liters	0	.5	1	1.5	2						
Time	1540	1545	1550	1555	1505						
Redox potential	89	68	59	58	59						
Conductivity (mohm/cm)	.770	.827	.831	.830	.830						
Dissolved Oxygen (ppm)	4.08	1.33	0.73	0.72	0.70						
pH (S.U.s)	6.50	6.58	6.67	6.68	6.						
Temp. (C)	12.42	12.12	12.06	12.05	12.05						
Turbidity (NTUs)	13.6	11.6	11.7	10.5	10.2						
TDS	0.44	0.53	0.53	0.53	0.52						
Salinity	0.0	0.0	0.0	0.0	0.0						
Depth to Water (ft)	8.03	8.03	8.03	8.03	8.03						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.02
Nitrite (mg/l)	0.012
Sulfate (mg/l)	63
Chloride (mg/l)	69
Alkalinity (mg/l)	189
Ferrous Iron (mg/l)	0.01

COMMENTS: Start purge @ 1435 Sample 1505

Monitoring Well Purging/Sampling Log

Well No. WVA - SA - MW-33

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5.15.02
SAMPLER(S): DEKOSKIE/FERGUSON

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2

C Water Level Below Top of Casing (ft.) * BLOCKAGE AT ~2.4' BGS.

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5/15/02											
Liters											
Time	1415										
Redox potential	78										
Conductivity (mohm/cm)	.489										
Dissolved Oxygen (ppm)	9.49										
pH (S.U.s)	7.04										
Temp. (C)	15.64										
Turbidity (NTUs)	637										
TDS	0.32										
Salinity	0.0										
Depth to Water (ft)	-										

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	
Nitrite (mg/l)	0.000
Sulfate (mg/l)	17
Chloride (mgl)	30 mg/l
Alkalinity (mg/l)	139 mg/l
Ferrous Iron (mg/l)	0.29

COMMENTS: Purge Start @ 1410 DRY @ 1425
5/16/02 0830 SAMPLE

Monitoring Well Purging/Sampling Log

34 Well No. WVA - SA - MW-34

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5.15.02
SAMPLER(S): DEKOSKIE/FERGUSON

A Total Casing and Screen Length (ft.) ____
B Casing Internal Diameter (in.) 4
C Water Level Below Top of Casing (ft.) ~~8.25~~ 8.25
D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-15-02											
Liters	0	0.5	1	1.5	2	2.5					
Time	1230	1235	1240	1245	1250	1255					
Redox potential	-103	-163	-177	-182	-183	-184					
Conductivity (mohm/cm)	1.34	1.50	1.50	1.50	1.51	1.51					
Dissolved Oxygen (ppm)	5.33	1.13	0.66	0.53	0.51	0.50					
pH (S.U.s)	5.21	6.81	6.83	6.83	6.83	6.83					
Temp. (C)	13.39	12.12	11.97	11.95	11.95	11.93					
Turbidity (NTUs)	24.6	11.7	13.5	13.5	13.4	13.4					
TDS	0.9	1.0	1.0	1.0	1.0	1.0					
Salinity	0.1	0.1	0.1	0.1	0.1	0.1					
Depth to Water (ft)	~~8.25~~	~~8.25~~	8.27	8.29	8.30	8.31					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.04 mg/L
Nitrite (mg/l)	0.025
Sulfate (mg/l)	0
Chloride (mgl)	165
Alkalinity (mg/l)	215
Ferrous Iron (mg/l)	0.09 mg/L

COMMENTS: 1230 Start Purge 1300 SAMPLE

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-EA-6

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5.15.02
SAMPLER(S): DEKOSKIE/FERGUSON

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2

C Water Level Below Top of Casing (ft.) 4.46

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-15-02											
Liters	0	0.5	1.0	1.5	2						
Time	1055	1100	1105	1110	1115						
Redox potential	149	156	158	158	158						
Conductivity (mohm/cm)	1.36	1.35	1.34	1.35	1.35						
Dissolved Oxygen (ppm)	12.08	1.98	1.30	1.30	1.29						
pH (S.U.s)	6.19	6.11	6.18	6.20	6.21						
Temp. (C)	12.66	12.58	12.6	12.6	12.7						
Turbidity (NTUs)	25.1	25.7	21.0	20.8	20.7						
TDS	0.6	0.9	0.9	0.9	0.9						
Salinity	0.00	0.10	0.1	0.1	0.1						
Depth to Water (ft)	4.46	4.46	4.46	4.46	4.46						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.006 mg/l
Nitrite (mg/l)	0.022 mg/l
Sulfate (mg/l)	68 mg/l
Chloride (mgl)	248
Alkalinity (mg/l)	93 mg/l
Ferrous Iron (mg/l)	0.03 mg/L

COMMENTS: Start purge @ 10 50 Sample @ 1125

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-29

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5.15.02
SAMPLER(S): DEKOSKIE / FERGUSON

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4

C Water Level Below Top of Casing (ft.) 4.55

D Volume of Water in Casing - includes annulus (gal.) ____

INITIAL ▽ = 4.55'

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5.15.02										
Liters	~.5	5	1	1.5	2	2.5	3				
Time	0936	0945	0950	0955	1000	1005	1010				
Redox potential	167	-11	-35	-39	-45	-48					
Conductivity (mohm/cm)	1.43	1.45	1.46	1.46	1.47	1.48	1.48				
Dissolved Oxygen (ppm)	3.01	0.73	0.58	0.58	0.60	0.58	0.62				
pH (S.U.s)	6.74	6.67	6.70	6.71	6.72	6.72	6.68				
Temp. (C)	11.38	11.14	11.41	11.46	11.51	11.41	11.60				
Turbidity (NTUs)	66.1	39.5	34.0	33.5	32.1	31.3	31.3				
TDS	0.9	0.9	0.9	0.9	0.9	0.9	1.0				
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
Depth to Water (ft)	5.15	6.15	6.26	5.84	5.52	5.46	5.28				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.08
Nitrite (mg/l)	0.008 mg/l
Sulfate (mg/l)	~~0.08 mg/l~~ 24 mg/l
Chloride (mgl)	381
Alkalinity (mg/l)	68
Ferrous Iron (mg/l)	.40

COMMENTS: Purge @ ~100 ml per Minute Sample 1020

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-77

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-16-02
SAMPLER(S): Dekoski Ferguson

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 4.13

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/16/02										
Liters	Ø										
Time	1055	1100	1105	1110	1115	1120					
Redox potential	80	83	86	89	90	90					
Conductivity (mohm/cm)	1.15	0.757	.632	.484	.482	.483					
Dissolved Oxygen (ppm)	4.66	4.83	6.33	6.31	6.31	6.30					
pH (S.U.s)	6.37	6.30	6.26	6.29	6.31	6.30					
Temp. (C)	14.73	13.47	13.45	13.45	13.43	13.39					
Turbidity (NTUs)	31.5	43.7	47.4	39.1	38.2	36.4					
TDS	0.7	0.48	0.34	0.31	0.29	0.27					
Salinity	0.0	0.0	0.0	0.0	0.0	0.0					
Depth to Water (ft)	4.13	4.38	4.52	4.60	4.63	4.64					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.12
Nitrite (mg/l)	0.009
Sulfate (mg/l)	50
Chloride (mgl)	15
Alkalinity (mg/l)	132
Ferrous Iron (mg/l)	0.15

COMMENTS: Start purge @ 1050 Sample @ 1120

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-76

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-16-02
SAMPLER(S): DeKoskie, Ferguson

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 6.25

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-16-02											
~~Liters~~ Time	1320	1325	1330	1335	1340	1345	1350				
Time ~~L~~	0.5	1.0	1.5	2.0	2.5	3.0	3.5				
Redox potential	-63	-61	-56	-58	-57	-57	-57				
Conductivity (mohm/cm)	1.67	1.51	1.49	1.47	1.46	1.46	1.46				
Dissolved Oxygen (ppm)	5.68	4.91	3.25	1.29	1.19	1.14	1.13				
pH (S.U.s)	7.59	7.53	7.48	6.99	6.98	6.98	6.98				
Temp. (C)	14.52	17.21	19.00	19.1	19.2	19.3	19.4				
Turbidity (NTUs)	61.2	52.1	40.3	46.1	48.4	49.1	49.5				
TDS	1.0	1.0	1.0	1.0	1.0	1.0	1.0				
Salinity	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
Depth to Water (ft)	6.30	6.38	6.33	6.33	6.33	6.33	6.37				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.00
Nitrite (mg/l)	0.000
Sulfate (mg/l)	80.0
Chloride (mgl)	110
Alkalinity (mg/l)	270
Ferrous Iron (mg/l)	0.05

COMMENTS: Start purge @ 1315, 1350 Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-20

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: ~~5-20-02~~ 5-21-02
SAMPLER(S): P. Rabideau, J. DeKoskie

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 1.45

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-21-02											
Liters	0.5	1	1.5								
Time	1349	1354	1356								
Redox potential	82	85									
Conductivity (mohm/cm)	.350	.320									
Dissolved Oxygen (ppm)	6.80	7.89									
pH (S.U.s)	6.44	6.50									
Temp. (C)	12.64	13.00									
Turbidity (NTUs)	110	70									
TDS	0.22	0.22									
Salinity	0.0	0.0									
Depth to Water (ft)		N/A Below pump	DRY								

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.16
Nitrite (mg/l)	0
Sulfate (mg/l)	43
Chloride (mgl)	7
Alkalinity (mg/l)	111
Ferrous Iron (mg/l)	0

COMMENTS: 1345 - Initiate Purge @ ≈ 250 ml/min. 1356 DRY.
~~5/20/02~~
5/21/02
1240 - ATW ~~@~~ 1.5 bgs
1300 - Collected Sample.

Monitoring Well Purging/Sampling Log

Well No. WVA-~~MW~~SA-GT1-3

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-21-02
SAMPLER(S): DeRosier Rabideau

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 7.25

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-21-02											
Liters	0.5	1.0	1.5	2.0							
Time	1413	1418	1423	1425							
Redox potential	100	91	85								
Conductivity (mohm/cm)	1.16	1.17	1.17								
Dissolved Oxygen (ppm)	2.13	1.66	0.72								
pH (S.U.s)	6.28	6.28	6.26								
Temp. (C)	11.29	11.20	11.34								
Turbidity (NTUs)	0	0	0								
TDS	0.70	0.70	0.70								
Salinity	0.10	0.10	0.10								
Depth to Water (ft)	10.54	13.12	14.62	END							

Too Much drawdown.

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.04
Nitrite (mg/l)	.015
Sulfate (mg/l)	32
Chloride (mgl)	82
Alkalinity (mg/l)	270
Ferrous Iron (mg/l)	0

COMMENTS: 1410 Start Purge 1425 Near dry Stop Purge

5/22/02 – DTW (0940 hrs) = 7.62 ft

1000 - Collected Sample

Monitoring Well Purging/Sampling Log

Well No. SA-MW-24

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-22-02
SAMPLER(S):

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 6.74

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-21-02											
Liters											
Time	1435	1440									
Redox potential	92	94									
Conductivity (mohm/cm)	.290	.289									
Dissolved Oxygen (ppm)	9.49	8.53									
pH (S.U.s)	6.45	6.45									
Temp. (C)	12.26	12.26									
Turbidity (NTUs)	21.9	14.7									
TDS	0.19	0.19									
Salinity	0.0	0.0									
Depth to Water (ft)	8.57	N/A									

Below pump.

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	55 LIMIT
Nitrite (mg/l)	.017
Sulfate (mg/l)	32
Chloride (mgl)	39
Alkalinity (mg/l)	82
Ferrous Iron (mg/l)	0

COMMENTS: 1433 Start purge. 1440 Dry Stop Purge

5/22/02 - 1145 : ATW = 6.83.
1200 : Collected Sample.

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-41

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-22-02
SAMPLER(S): DeKoskie Rabideau

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 0.50

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-22-02											
Liters	ϕ										
Time 0755	0758	0803	0808	0813	0818						
Redox potential	95	84	71	72	69						
Conductivity (mohm/cm)	.384	.388	.385	.387	.389						
Dissolved Oxygen (ppm)	4.11	3.86	3.18	3.06	3.00						
pH (S.U.s) 6.22	5.89	6.99	6.68	6.70	6.73						
Temp. (C)	10.72	11.72	11.89	12.02	12.01						
Turbidity (NTUs)	9.1	5.9	5.8	4.9	4.8						
TDS	0.26	0.25	0.25	0.25	.25						
Salinity	0.0	0.0	0.0	0.0	0.0						
Depth to Water (ft)	0.50	0.90	1.31	1.59	1.59	1.59					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	.55
Nitrite (mg/l)	.009
Sulfate (mg/l)	76
Chloride (mgl)	69
Alkalinity (mg/l)	69
Ferrous Iron (mg/l)	.18

COMMENTS: 0755 start purge @ ≈ 100 ml/min.
0820 - collect samples / Dup DD-1

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-19

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-20-02
SAMPLER(S): DeFOSKIE, KOTA

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 1.8

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5-20-02										
Liters											
Time	1230	1235	1240	1245	1250						
Redox potential	67	62	-51	-58							
Conductivity (mohm/cm)	.719	.726	.711	.705							
Dissolved Oxygen (ppm)		1.27	1.41	1.54							
pH (S.U.s)	6.41	6.36	6.39	6.41							
Temp. (C)	10.91	11.05	11.71	11.83							
Turbidity (NTUs)	57.6	8.4	6.1	12.6							
TDS	0.47	0.46	0.45	0.44							
Salinity	0.0	0.0	0.0	0.0							
Depth to Water (ft)	2.90				DRY						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.05
Nitrite (mg/l)	0.007
Sulfate (mg/l)	19.0
Chloride (mgl)	12.0
Alkalinity (mg/l)	302
Ferrous Iron (mg/l)	0.00

COMMENTS: 1230 START PURGE DRY @ 1250

5/20 NOTE: Strong odor from Catch Basin (DRAIN).
Product Sheen observed on H2O Surface in DRAIN.

5/21/02 → Collect Sample 1230

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-32

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5/21/02
SAMPLER(S): KM | JRD

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 1" Below Toc

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED											
Date	5/21/02											
Liters	0	375	750	1125	1500							
Time	1030	1035	1040	1045	1050							
Redox potential	30	32	18	24	26							
Conductivity (mohm/cm)	1.29	1.31	1.34	1.35	1.36							
Dissolved Oxygen (ppm)	4.93	4.78	5.01	5.10	5.17							
pH (S.U.s)	6.49	6.47	6.50	6.51	6.52							
Temp. (C)	12.89	13.28	12.97	12.92	12.92							
Turbidity (NTUs)	26	21.3	4.3	0	0							
TDS	.8	.8	.9	.9	.9							
Salinity	.1	.1	.1	.1	.1							
Depth to Water (ft)	1" BTOC	.82	.86	.89	1.02							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.24
Nitrite (mg/l)	0.005
Sulfate (mg/l)	34.0
Chloride (mg/l)	278.0
Alkalinity (mg/l)	93.0
Ferrous Iron (mg/l)	0.00

COMMENTS: 1030- Initiate Purge @ a 75 ml/min. Sample @ 1505

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-39

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-21-02
SAMPLER(S): DEKOSKIE, RABIDEAU

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 2.60

D Volume of Water in Casing - includes annulus (gal.) ____

875
375
1240
375
1615
8

1980
375
2355

PARAMETER	ACCUMULATED VOLUME PURGED										
Date	5/21/02		805	1240							
Liters	0	500	1000	1500	1615	1980	2355				
Time	0900	0905	0910	0915	0920	0925	0930				
Redox potential	-24	-23	-23	-24	-23	-20	-19				
Conductivity (mohm/cm)	1.09	1.13	1.17	1.19	1.22	1.20	1.19				
Dissolved Oxygen (ppm)	2.99	1.35	1.59	1.05	1.68	1.52	1.48				
pH (S.U.s)	5.32	6.29	6.31	6.34	6.35	6.28	6.28				
Temp. (C)	11.86	12.12	12.50	13.0	13.25	12.80	12.82				
Turbidity (NTUs)	1000	1000	840	648	330	223	243				
TDS	.7	.7	.8	.8	.8	.8	.8				
Salinity	0	.1	.1	.1	.1	.1	.1				
Depth to Water (ft)	2.60	3.01	3.04	3.04	3.04	3.04	3.04				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	6.00
Nitrite (mg/l)	0.021
Sulfate (mg/l)	45.0
Chloride (mg/l)	~~202.0~~ 189.0
Alkalinity (mg/l)	202.0
Ferrous Iron (mg/l)	1.71

COMMENTS: 0900 - Initiate Purge @ ≈ 100 ml/min. 0905 - Reduced Flow to ≈ 75 ml/min
0930 Sample

WVA-SA-MW-

Monitoring Well Purging/Sampling Log

Well No. ESE-1

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-20-01
SAMPLER(S): DEKOSKIE, KOTA

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 7.85

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-20-01											
Liters	.5	1	1.5	2	2.5						
Time	1040	1045	1050	1055	1100						
Redox potential	-116	-179	-194	-195	-196						
Conductivity (mohm/cm)	1.43	1.42	1.42	1.42	1.42						
Dissolved Oxygen (ppm)	3.30	1.11	0.89	0.89	0.88						
pH (S.U.s)	7.35	7.87	7.97	7.99	8.01						
Temp. (C)	11.72	11.40	11.43	11.45	11.46						
Turbidity (NTUs)	0.4	5.5	4.2	3.1	1.4						
TDS	0.9	0.9	0.9	0.9	0.9						
Salinity	0.1	0.1	0.1	0.1	0.1						
Depth to Water (ft)	7.94	7.99	8.01	8.01	8.01						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.24
Nitrite (mg/l)	0.008
Sulfate (mg/l)	0.0
Chloride (mgl)	16
Alkalinity (mg/l)	506.0
Ferrous Iron (mg/l)	0.14

COMMENTS: 1035 Start purge, 1105 Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-SK-MW-ESE-6

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-20-02
SAMPLER(S): Kork, DeKoskie

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 10.23

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-20-01											
Liters											
Time	1308	1313	1318	1323	1328						
Redox potential	-122	-140	-147	-149	-149						
Conductivity (mohm/cm)	.732	.729	.731	.729	.729						
Dissolved Oxygen (ppm)	3.62	1.04	0.68	0.58	0.53						
pH (S.U.s)	6.47	6.56	6.53	6.51	6.51						
Temp. (C)	10.98	11.32	11.37	11.29	11.28						
Turbidity (NTUs)	6.9	1.0	1.0	1.0	1.0						
TDS	0.47	0.47	0.47	0.46	0.46						
Salinity	0.0	0.0	0.0	0.0	0.0						
Depth to Water (ft)	10.26	10.26	10.26	10.26	10.26						

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.07
Nitrite (mg/l)	0.004
Sulfate (mg/l)	0.0
Chloride (mg/l)	15.0
Alkalinity (mg/l)	301.0
Ferrous Iron (mg/l)	2.26

COMMENTS: 1305 Start purge 1330 Sample

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-ESE-3

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5-20-02
SAMPLER(S): KOTA, DEKOSKIE

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) ____

C Water Level Below Top of Casing (ft.) 6.70

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-20-02											
Liters	.5	1.0	1.5	2.0							
Time	1430	1435	1440	1445							
Redox potential	-50	96	-93	-94							
Conductivity (mohm/cm)	.548	.561	.575	.578							
Dissolved Oxygen (ppm)	3.19	1.21	1.20	1.18							
pH (S.U.s)	6.32	6.33	6.90	6.90							
Temp. (C)	11.19	11.06	11.01	11.03							
Turbidity (NTUs)	141.0	57.1	20.7	19.1							
TDS	0.35	0.36	0.37	0.37							
Salinity	0.0	0.0	0.0	0.0							
Depth to Water (ft)	6.71	6.75	6.75	6.75							

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.00
Nitrite (mg/l)	0.001
Sulfate (mg/l)	57.0
Chloride (mgl)	21.0
Alkalinity (mg/l)	203.0
Ferrous Iron (mg/l)	1.90

COMMENTS: Start purge @ 1430 Sample 1450

Monitoring Well Purging/Sampling Log

Well No. WVA-SA-MW-29

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5.17.02
SAMPLER(S): DEKOSKIE/FERGUSON

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 2

C Water Level Below Top of Casing (ft.) 5.08

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5-17-02											
Liters	0	.5	1	1.5	2	2.5	3				
Time	1240	1245	1250	1255	1300	1305	1310				
Redox potential	-97	-45	-31	-32	-32	-29	-29				
Conductivity (mohm/cm)	0.293	0.244	0.236	0.225	0.221	0.218	0.214				
Dissolved Oxygen (ppm)	4.30	4.28	3.41	1.56	1.28	1.20	1.22				
pH (S.U.s)	7.79	7.51	7.27	7.19	7.04	7.03	7.01				
Temp. (C)	13.44	13.45	13.45	13.35	13.24	13.25	13.22				
Turbidity (NTUs)	144	92.5	76.2	35.6	30.0	31.1	30.5				
TDS	0.18	0.16	0.15	0.15	0.14	0.14	0.14				
Salinity	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Depth to Water (ft)	5.30	5.45	5.48	5.55	Below Top of Pump	—	—				

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	0.00
Nitrite (mg/l)	0.004
Sulfate (mg/l)	23.0
Chloride (mg/l)	16
Alkalinity (mg/l)	85
Ferrous Iron (mg/l)	0.29

COMMENTS: Purge 1240 Sample 1310

Monitoring Well Purging/Sampling Log

Well No. WV A-SA . MW - 28

PROJECT NAME: WVA Long Term Monitoring Plan
PROJECT LOCATION: Watervliet, NY
PROJECT NUMBER: 0285771
DATE: 5.17.02
SAMPLER(S): DeLoskie | Ferguson

A Total Casing and Screen Length (ft.) ____

B Casing Internal Diameter (in.) 4

C Water Level Below Top of Casing (ft.) 3.35

D Volume of Water in Casing - includes annulus (gal.) ____

PARAMETER	ACCUMULATED VOLUME PURGED										
Date 5.17.02											
Liters											
Time	1030	1035	1040	1045	1050	1055					
Redox potential	13	-17	-47	-48	-48	-48					
Conductivity (mohm/cm)	2.07	1.96	1.80	1.78	1.77	1.77					
Dissolved Oxygen (ppm)	2.51	1.75	0.93	0.63	0.61	0.60					
pH (S.U.s)	7.04	7.31	7.58	7.60	7.60	7.60					
Temp. (C)	12.53	12.40	12.32	12.19	12.13	12.15					
Turbidity (NTUs)	18.0	17.3	16.5	15.8	15.3	14.9					
TDS	1.3	1.1	1.1	1.1	1.1	1.1					
Salinity	0.1	0.1	0.1	0.1	0.1	0.1					
Depth to Water (ft)	3.75	3.87	4.15	4.18	4.18	4.19					

FIELD ANALYSIS

ANALYTE	CONCENTRATION
Nitrate (mg/l)	>2.43
Nitrite (mg/l)	0.037
Sulfate (mg/l)	1.0
Chloride (mg/l)	370.0
Alkalinity (mg/l)	11.0
Ferrous Iron (mg/l)	0.04

COMMENTS: Start Purge 1030. Sample at 1100.

APPENDIX B

Data Validation Report

MALCOLM PIRNIE

INTEROFFICE CORRESPONDENCE

To: Andy Vitolins **Date:** June 2003

Copy: File: 0285911

From: David Lewitt – Data Validator

Re: Watervliet Arsenal May/November 2002 Long Term Monitoring Data Validation Summary

A total of 95 groundwater samples, including eight trip blanks and five matrix spike/matrix spike duplicate (MS/MSD) samples, were collected from monitoring wells at the Watervliet Arsenal on May 15 – 30, 2002. The samples were divided into five sample delivery groups (SDG) numbered 201074, 201086, 201096, 201114, and 201129 and analyzed for Volatile Organic Compounds (VOC) by EPA Method 8260 and Semi-Volatile Organic Compounds (SVOC) by EPA Method 8270. An additional 33 groundwater samples and one trip blank were collected from the reactive wall wells in August and November of 2002. These samples were divided into three SDGs numbered 201618, 202607, and 202608 and analyzed for VOCs by EPA Method 8260. The analyses were subcontracted to Severn Trent Laboratories, Inc. (STL) of Shelton, CT.

The data were reviewed for contractual compliance in accordance with the requested methodologies, and qualifications were applied as specified in the NYSDEC Guidance for the Development of Data Usability Summary Reports (6/99). Data validation was conducted at a rate of ten percent including at least one sample from each SDG. The following quality control indicators, where applicable, were used to evaluate the usability of the sample results: sample integrity, holding times, blank contamination, calibration information, instrument performance checks (tuning), system monitoring compounds (surrogates), internal standards, laboratory control samples (LCS), MS/MSD analysis, dilutions performed, chromatogram evaluation, and calculations.

LABORATORY ANALYSIS

SDGs 201074, 201086, 201096, 201114, and 201129:

The samples were collected between May 15 and May 30 of 2002 and arrived at STL Connecticut on ice in coolers. The temperature inside most of the coolers was within the required range of 4.0°C +/- 2.0°C. Some coolers in SDG 201074 had temperatures outside (greater than) the required range. The temperature exceedence, however, was not excessive (8°C - 9°C) and the samples were all analyzed within two to three days of sample collection. Therefore, no qualifications were assigned to samples from these coolers.

Volatile Organic Compounds: All sample holding times were met for each of the SDGs. Methylene chloride and methyl ethyl ketone (MEK) were found in method blanks for SDGs 201086, 201096, and 201129. All associated data were qualified as non-detect, "U", since these are common laboratory contaminants and none of the concentrations in the samples exceeded 10X that in the blank. Tetrachloroethene was detected in method blanks for SDG 201114. Tetrachloroethene is a non-common laboratory contaminant. The associated data was qualified as non-detect since none of the concentrations in the samples exceeded 5X that in the blank. The bromofluorobenzene (BFB) tuning criteria for ion abundance and 12 hour clock window were met for all of the SDGs. The initial calibration data met established criteria for percent relative standard deviation (RSD) and minimum response factors (RF) for all calibration check compounds (CCC) and system performance check compounds (SPCC), respectively. In SDG 201114, the %RSD was above acceptable criteria limits for bromomethane in the initial calibration. All bromomethane data run under this initial calibration was qualified as estimated, "J". Other compounds in all SDGs had %RSDs and average RFs outside established criteria but were not qualified since they were not listed as target compounds. The continuing calibration data met established criteria for percent difference (D) and minimum RFs, for CCCs and SPCCs, respectively. Several compounds in all SDGs had %Ds and RFs outside of acceptable criteria limits. All corresponding target compounds were qualified as estimated, "J". All internal standard criteria for control limits were met. All surrogate recovery criteria were met except for one surrogate (1,2 – dichloroethane) in sample WVA-AW-MW-34 (SDG 201096) that had a low recovery. All detected and non-detected data for each compound in this sample were qualified as estimated, "J". Several compounds in the MS/MSD samples for each of the five SDGs showed percent recoveries outside of established criteria. All associated compounds in each SDG were qualified as estimated "J". There were no other data qualifications assigned to these samples.

Semi-Volatile Organic Compounds: All sample holding times for extraction and analysis were met for each of the SDGs. No compounds were detected in any method blanks for all SDGs. The decafluorotriphenylphosphine (DFTPP) tuning criteria for ion abundance and 12 hour clock window were met for all SDGs. The initial calibration data met established criteria for %RSD and minimum RFs for all CCCs and SPCCs, respectively. Benzoic acid in three initial calibrations showed %RSDs above established criteria (SDGs 201086, 201114, and 201129). No qualifications were assigned, as benzoic acid is not a target compound. The continuing calibration data met established criteria for %D and minimum RFs for all CCCs and SPCCs, respectively. Several target compounds in the continuing calibrations showed %Ds outside acceptable limits. For each SDG, these compounds were qualified as estimated, "J", in all samples run under the corresponding continuing calibration. All internal standard criteria for control limits were met except for one internal standard in sample 86-EM-SP-5 (SDG 201086) that was low. All compounds in this sample that were quantitated with this internal standard were qualified as estimated, "J". All surrogate recovery criteria were met except one surrogate (2,4,6 – tribromophenol) in sample WVA-AW-MW-38 (SDG 201096) that was high. No qualifications were assigned to this sample since two or more surrogates per acid/base

fraction are required to be out for action to be taken. One compound (1,4-dichlorobenzene) was outside spike recovery limits for the MS/MSD sample in SDG 201086. All associated data was qualified as estimated, "J", for that SDG. There were no other data qualifications assigned to these samples.

SDGs 201618, 202607, and 202608 (Reactive Wall Wells):

The samples were collected on August 12 and November 25 of 2002. They arrived at STL Connecticut in iced coolers with all cooler temperatures within the required range of 4.0°C +/- 2.0°C.

Volatile Organic Compounds: All holding times were met with each of the SDGs. Methylene chloride was found in the method blanks for SDGs 201618 and 202608. All associated data was qualified as non-detect, "U". BFB tuning criteria for ion abundance and 12 hour clock window were met for all of the SDGs. The initial calibration data met established criteria for %RSD and minimum RF for all CCCs and SPCCs, respectively. In all SDGs, several %RSDs were above criteria limits and in SDG 201618 three RFs were below criteria. In SDG 201618, all target compounds associated with the outlying %RSD data were qualified as estimated, "J". No qualifications were made on any other data since none of the discrepancies were associated with target compounds. The continuing calibration data met established criteria for %D and minimum RFs for CCCs and SPCCs, respectively. Several RFs and %Ds were outside criteria limits in all three SDGs. Target compounds in SDGs 202607 and 202608 were qualified as estimated, "J", based on the outlying %D data. The discrepancies did not affect any other target compounds. All internal standards and surrogates were within criteria limits for upper and lower controls and recovery, respectively. All MS/MSD data was acceptable. No other data qualifications were assigned to any samples in these SDGs.

APPENDIX C

Potentiometric Contour Maps

APPENDIX D

Summary Tables
and
Disk containing Groundwater Monitoring Database in Microsoft Access®

Watervliet Arsenal - Long Term Monitoring

Well ID: 83DM-SP-1

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	192		210		199			354	
Chloride	mg/L	480		640		244			58	
Conductivity	mohm/cm								1.66	
Dissolved Oxygen	mg/L	1.38		4.50		0.00			0.61	
DOC	mg/L	4.65		4.34		5.36				
DOC Average Quads	mg/L								82	
Ferrous Iron	mg/L	0.02		0.01		0			0.3	
Methane	ug/L								20	
Nitrate	mg/L	0.06		1.11		0.26			0	
Nitrite	mg/L	0.016		0.028		0.004			0	
pH		6.76		7.08		7.37			6.89	
Redox	mV	64.1		216		250			-295	
Sulfate	mg/L	80		80		76			0	
Sulfide	mg/L			1		1			5	
Temperature	C								15.01	
Turbidity	NTUs								31	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.8 (JB)		0.2 (JB)		0.2 (J)		
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.6 (JB)		0.1 (J)						
Di-n-octylphthalate	ug/L	0.2 (JB)		0.1 (J)						
Phenol	ug/L	.							0.9 (J)	

Well ID: 83DM-SP-1

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1 1 1-Trichloroethane	ug/L								27	
1 1-Dichloroethane	ug/L								6	
1 1-Dichloroethene	ug/L								1 (J)	
1,1,1-Trichloroethane	ug/L	1 (J)		7				9		
1,1,2,2-Tetrachloroethane	ug/L	0.6 (J)				0.4 (J)				
1,1-Dichloroethane	ug/L	0.5 (J)								
2-Butanone	ug/L	2 (J)								
2-Butanone (MEK)	ug/L								15 (B)	
4-Methyl-2-Pentanone	ug/L					1 (J)				
Bromodichloromethane	ug/L	5								
Carbon Disulfide	ug/L					1 (J)			4 (J)	
cis-1,2-Dichloroethene	ug/L	3 (J)		2 (J)		2 (J)		3 (J)		
Methylene Chloride	ug/L							0.5 (JB)	0.5 (J)	
Tetrachloroethene	ug/L	1 (J)		0.9 (J)		1 (J)		0.6 (J)		
trans-1 2-Dichloroethene	ug/L								0.6 (J)	
Trichloroethene	ug/L	12		31		11		42	10	

Well ID: 83DM-SP-3

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	245		243		214		285	77	
Carbon Dioxide	ug/L				3700					
Chloride	mg/L	120		80		52		113	43	
Conductivity	mohm/cm							2.01	2.14	
Dissolved Oxygen	mg/L	0.55		1.80		0.58		0.0	0.75	
DOC	mg/L			2.92		3.88		4.3		
DOC Average Quads	mg/L								4.2	
Ferrous Iron	mg/L	0.74		0.58		0.6		0.12	0.09	
Methane	ug/L				67	90		26	9.2	
Nitrate	mg/L	0.08		0		0.03		0.05	0.15	
Nitrite	mg/L	0.047		0.045		0		0.022	0.011	
pH		6.25		7.00		7.06		6.91	7.3	
Redox	mV	50		14		31		328	305	
Salinity								0.1		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L			1		1				
TDS								1.3		
Temperature	C								11.07	
Temperature								9.78 (C)		
Turbidity	NTUs							57.0	768	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			5 (JB)				0.4 (J)		
Butylbenzylphthalate	ug/L			0.4 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.2 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					6 (J)				
Carbon Disulfide	ug/L					0.6 (J)			3 (J)	
Methylene Chloride	ug/L					2 (J)		0.6 (JB)	2 (J)	

Well ID: 83DM-SP-4

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	240		204		273		180	56	
Carbon Dioxide	ug/L				2600					
Carbon Dioxide (Dup)	ug/L				4100					
Chloride	mg/L	137		203		35		196	42	
Conductivity	mohm/cm							2.1	2.29	
Dissolved Oxygen	mg/L	0.21		2.00		0.00		1.79	0.92	
DOC	mg/L	3.96		6.63		16.8		5.56		
DOC (Dup)	mg/L			9.53						
DOC Average Quads	mg/L								2.6	
Ferrous Iron	mg/L	>80		1.97		2.41		2.31	2.87	
Methane	PPB	160								
Methane	ug/L				98	120		29	15	
Methane (Dup)	ug/L				75					
Nitrate	mg/L	0.04		8.42		0.01		0.09	0.07	
Nitrite	mg/L	0.39		0		0.028		0.013	0.012	
pH		6.20		6.90		7.05		6.64	7.2	
Redox	mV	1.1		41		-21		-14	-4	
Salinity								0.1		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L			1		1				
Sulfide (Dup)	mg/L			1						
TDS								1.3		
Temperature	C							12.65	11.2	
Turbidity	NTUs							21.6	4.9	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.4 (JB)		6 (JB)				0.2 (JB)		
bis(2-Ethylhexyl)phthalate (Dup)	ug/L			5 (JB)						
Butylbenzylphthalate	ug/L			0.6 (JB)						
Butylbenzylphthalate (Dup)	ug/L			0.3 (JB)						
Diethylphthalate	ug/L			0.08 (JB)						
Diethylphthalate (Dup)	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L	0.7 (JB)		0.2 (JB)				0.1 (JB)		
Di-n-butylphthalate (Dup)	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.3 (JB)				0.2 (J)		
Di-n-octylphthalate (Dup)	ug/L			0.1 (JB)						
Naphthalene	ug/L			0.05 (JB)						
Naphthalene (Dup)	ug/L			0.05 (JB)						
Phenol	ug/L			0.04 (JB)						
Phenol (Dup)	ug/L			0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					6 (J)				
Methylene chloride	ug/L					2 (J)		0.6 (JB)	2 (J)	

Well ID: 86EM-SP-1A

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	209		2330		101		51	68	
Chloride	mg/L	14		160		28		351	22	
Conductivity	mohm/cm							1.52	0.451	
Dissolved Oxygen	mg/L	2.08		5.46		1.30		0.25	4.73	
DOC	mg/L	1.01		2.17		3.37		264		
DOC Average Quads	mg/L								1.5	
Ferrous Iron	mg/L	0.01		0		0		0.0	0	
Methane	PPB	3.5								
Methane	ug/L							12		
Nitrate	mg/L	0.16		1.89		0.55		0.5	0.43	
Nitrite	mg/L	0.016		0.57		0.09		0.013	0.011	
pH		6.21		6.74		6.93		6.8	7.45	
Redox	mV	96.3		238		275		250	-4	
Salinity								0.1		
Sulfate	mg/L	46		57		32		80	60	
Sulfide	mg/L					1				
TDS								1.0		
Temperature	C								18.59	
Temperature								17.54		
Turbidity	NTUs							19.3	0	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.3 (JB)				0.6 (J)		
Butylbenzylphthalate	ug/L			0.2 (J)						
Diethylphthalate	ug/L	0.2 (JB)		0.2 (JB)						
Di-n-butylphthalate	ug/L	0.6 (JB)		0.3 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)								

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					4 (JB)				
Chloroform	ug/L					0.5 (J)			0.6 (J)	
cis-1,2-Dichloroethene	ug/L			2 (J)		1 (J)		2 (J)		
Methylene Chloride	ug/L			0.9 (J)		0.6 (JB)				
Tetrachloroethene	ug/L	7								
Trichloroethene	ug/L	12		11		11		9	11	
Trichlorofluoromethane	ug/L	5								

Well ID: 86EM-SP-1B

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	310		176		260			159	
Carbon Dioxide	PPB	3800								
Chloride	mg/L	238		174		13			47	
Conductivity	mohm/cm							0.842	0.603	
Dissolved Oxygen	mg/L	1.12		4.60		0.71		8.1	3.12	
DOC	mg/L			1.46		7.49				
DOC Average Quads	mg/L								3.1	
Ferrous Iron	mg/L	0.01		0.27		0			0.01	
Methane	PPB	3000 (D)								
Nitrate	mg/L	0.2		0.46		0.14			0.07	
Nitrite	mg/L	0.124		0		0.05			0.098	
pH		6.22		7.10		7.10		7.33	7.29	
Redox	mV	22.9		178		138		279	370	
Salinity								0.0		
Sulfate	mg/L			0		14			6	
Sulfide	mg/L			1						
TDS								0.54		
Temperature	C							20.28	14.8	
Turbidity	NTUs							41.6	11.9	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)		0.7 (JB)		0.4 (JB)		
Di-n-butylphthalate	ug/L			0.3 (JB)				0.08 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
cis-1,2-Dichloroethene	ug/L			0.8 (J)		0.5 (J)				
Methylene Chloride	ug/L			0.4 (JB)		2 (JB)			1 (JB)	
Trichloroethene	ug/L			3 (J)		2 (J)			3 (J)	

Well ID: 86EM-SP-5

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	288		400		295		204	137	
Carbon Dioxide	ug/L			3900		6300 ( )			5500	
Carbon Dioxide (Dup)	ug/L			3900						
Chloride	mg/L	768		1130		114		489	52	
Conductivity	mohm/cm							2.33	1.15	
Dissolved Oxygen	mg/L	0.62		3.21		0.00		0.0	0.79	
DOC	mg/L			14.3		19.3		10.3		
DOC (Dup)	mg/L			13.9						
DOC Average Quads	mg/L								10	
Ethane	ug/L								140	
Ethene	ug/L								140	
Ferrous Iron	mg/L	3.06		3.3		2.46		3.24	1.65	
Methane	ug/L			44.9		11		190	130	
Methane (Dup)	ug/L			34.3						
Nitrate	mg/L	0.14		0.12		0.02		0.03	0.31	
Nitrite	mg/L	0.051		0.007		0.12		0.028	0.02	
pH		6.25		6.61		6.86		6.86	7.29	
Redox	mV	-89.3		-56		-60		-49	-170	
Salinity								0.1		
Sulfate	mg/L	115		80		80		36	80	
TDS								1.5		
Temperature								12.99 (C)		
Temperature	C								12.6	
Turbidity	NTUs							48.8	134	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
4-Chloro-3-methylphenol	ug/L			120		180			86	
4-Chloro-3-methylphenol (Dup)	ug/L			120						
bis(2-Ethylhexyl)phthalate	ug/L			0.4 (JB)				0.4 (J)		
bis(2-Ethylhexyl)phthalate (Dup)	ug/L			0.4 (JB)						
Butylbenzylphthalate	ug/L			0.6 (J)						
Butylbenzylphthalate (Dup)	ug/L			0.7 (J)						
Di-n-butylphthalate	ug/L			0.5 (JB)				0.1 (J)		
Di-n-butylphthalate (Dup)	ug/L			0.6 (JB)						
Fluoranthene	ug/L			0.3 (J)				0.1 (J)		
Fluoranthene (Dup)	ug/L			0.3 (J)						
Pyrene	ug/L							0.1 (J)		

Well ID: 86EM-SP-5

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1 1-Dichloroethane	ug/L								1 (J)	
1,1-Dichloroethane	ug/L			3 (J)		3 (J)		1 (J)		
1,1-Dichloroethane (Dup)	ug/L			3 (J)						
2-Butanone	ug/L			2 (JB)		6 (J)				
2-Butanone (Dup)	ug/L			2 (JB)						
Carbon Disulfide	ug/L					0.8 (J)			0.3 (J)	
Chloromethane	ug/L					1 (J)				
Methylene Chloride	ug/L			4 (J)		3 (JB)		0.7 (JB)	0.5 (JB)	

Well ID: 86EM-SP-6

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	426		435		212		259	186	
Carbon Dioxide	PPB	390								
Chloride	mg/L	212		137		38		84	36	
Conductivity	mohm/cm							1.99	3.1	
Dissolved Oxygen	mg/L	0.48		8.5		0.95		0.0	1.07	
DOC	mg/L	6.67		12.4		10.6		4.64		
DOC Average Quads	mg/L								8	
DOC Average Quads (Dup)	mg/L								7.7	
Ferrous Iron	mg/L			0		0.02		0.06	0.01	
Methane	ug/L			25.3		17				
Methane (Dup)	ug/L								4.1	
Nitrate	mg/L	0.08		0.28		0.19		1.87	0.57	
Nitrite	mg/L	0.029		0.375		0.097		0.024	0.071	
pH		6.37		6.90		7.00		6.83	7.25	
Redox	mV	119.7		172		130		292	50	
Salinity								0.1		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L			1		1		3.3		
TDS								1.3		
Temperature	C							13.13	13.24	
Turbidity	NTUs							0.0	11.6	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.4 (JB)		2 (JB)		0.5 (J)		0.2 (JB)		
Butylbenzylphthalate	ug/L			0.5 (J)						
Diethyl phthalate	ug/L								0.4 (JM)	
Diethyl phthalate (Dup)	ug/L								0.4 (J)	
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.5 (JB)		0.3 (J)				0.1 (JB)		
Di-n-octylphthalate	ug/L	0.2 (JB)								

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1 1-Dichloroethane	ug/L								2 (J)	
1 1-Dichloroethane (Dup)	ug/L								2 (J)	
1,1-Dichloroethane	ug/L	1 (J)	2 (J)	1 (J)		1 (J)				
2-Butanone	ug/L					6 (J)				
Chloromethane	ug/L					0.6 (J)				
cis-1,2-Dichloroethene	ug/L					0.4 (J)				
Methylene Chloride	ug/L			2 (J)		2 (J)				
Trichloroethene	ug/L	0.5 (J)				0.3 (J)				
Vinyl Chloride	ug/L					0.3 (J)			0.5 (J)	

Well ID: 92EM-SP-7

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	219		324		315		178	143	
Carbon Dioxide	ug/L								6100	
Chloride	mg/L	241		395		31		325	35	
Conductivity	mohm/cm							2.28	2.43	
Dissolved Oxygen	mg/L	0.11		3.70		0.00		0.0	3.03	
DOC	mg/L			3.62		8.45		5.32		
DOC Average Quads	mg/L								2.2	
Ethane	ug/L								130	
Ethene	ug/L								100	
Ferrous Iron	mg/L	0.06		0.02		0.06		2.0	0.03	
Methane	ug/L					2.3		2.1 ( )	72	
Nitrate	mg/L	0.05		0.32		0.06		0.18	0.23	
Nitrite	mg/L	0.027		0		0.026		0.021	0.003	
pH		6.59		7.40		7.68		7.44	8.01	
Redox	mV	53.8		96		39		185	72	
Salinity								0.1		
Sulfate	mg/L	80		80		78		80	0	
Sulfide	mg/L			1		1				
TDS								1.5		
Temperature								15.34 (C)		
Temperature	C								15.5	
Turbidity	NTUs							166	33.9	

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)				0.2 (J)		
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Naphthalene	ug/L			0.08 (JB)						
Phenol	ug/L			0.04 (JB)						

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,1-Dichloroethane	ug/L					0.8 (J)				
2-Butanone	ug/L					6 (J)				
Chloromethane	ug/L					0.7 (J)				
Methylene Chloride	ug/L					0.9 (J)		0.6 (JB)		

ell ID: 92EM-SP-8

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	232		183		249		173	157	
Chloride	mg/L	203		696		32		313	248	
Conductivity	mohm/cm							2.7	2.84	
Dissolved Oxygen	mg/L	0.03		2.40		0.00		0.0	2.14	
DOC	mg/L			7.37		9.35		7.32		
DOC Average Quads	mg/L								4.1	
Ferrous Iron	mg/L	0.67		0		1.19		1.41	0	
Methane	ug/L				10	39		18		
Nitrate	mg/L	0.07		0.26		0		0.03	0.1	
Nitrite	mg/L	0.05		0.018		0		0.012	0.004	
pH		6.83		7.20		7.47		7.34	7.56	
Redox	mV	-91		123		-89		-109	14	
Salinity								0.1		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L			1						
TDS								1.7		
Temperature								14.99 (C)		
Temperature	C								16.11	
Turbidity	NTUs							119	7	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
4-Chloro-3-methylphenol	ug/L			0.6 (J)		3		3		
bis(2-Ethylhexyl)phthalate	ug/L			0.5 (JB)		0.6 (JB)		0.2 (J)		
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.1 (JB)		0.1 (J)				
Di-n-butylphthalate	ug/L			0.2 (JB)		0.1 (J)				
Naphthalene	ug/L			0.08 (JB)						
Phenol	ug/L			0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1-Dichloroethane	ug/L					2 (J)		1 (J)		
Chloromethane	ug/L					0.8 (J)				
cis-1,2-Dichloroethene	ug/L					3 (J)				
Methylene Chloride	ug/L					0.6 (JB)		0.8 (JB)		
Vinyl Chloride	ug/L					1 (J)				

Well ID: 93EM-RW-2

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	124		605		230		173	156	
Chloride	mg/L	86		76		102		264	116	
Conductivity	mohm/cm							1.35	0.694	
Dissolved Oxygen	mg/L	0.80		5.80		0.00		0.0	0.66	
DOC	mg/L			4.53		7.12		5.62		
DOC Average Quads	mg/L								4.4	
Ethane	ug/L							4.1		
Ethene	ug/L							15		
Ferrous Iron	mg/L	0.06				0.59	0	1.56	0.26	
Methane	PPB	27								
Methane	ug/L							840		
Nitrate	mg/L	0.04		0.18		0.044		0.05	0.03	
Nitrite	mg/L	0.01		0.007		0.039		0.021	0.004	
pH		7.05		6.90				7.35	7.53	
Redox	mV	-10		204		-93		-134	-105	
Salinity								0.1		
Sulfate	mg/L	23		25		0.14		0.0	33	
Sulfide	mg/L					1				
TDS								0.9		
Temperature	C							12.46	12.9	
Turbidity	NTUs							44.2	18.8	

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Acenaphthene	ug/L					0.1 (J)		0.5 (J)		
bis(2-Ethylhexyl)phthalate	ug/L			0.6 (JB)				0.3 (J)		
Butylbenzylphthalate	ug/L			0.09 (J)						
Diethylphthalate	ug/L			0.09 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)		0.1 (J)		0.2 (J)		
Di-n-octylphthalate	ug/L			0.05 (J)						
Fluorene	ug/L							0.3 (J)		

Well ID: 93EM-RW-2

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L					4 (J)				
Benzene	ug/L					0.7				
Bromodichloromethane	ug/L			4 (J)						
Bromodichloromethane (BS)	ug/L			4.4 (J)						
Carbon Disulfide	ug/L					1 (J)				
Chloroform	ug/L			40		1 (J)				
Chloroform (BS)	ug/L			46						
cis-1,2-Dichloroethene	ug/L					20		39		
Methylene Chloride	ug/L			0.8 (J)		2 (J)		1 (JB)		
Tetrachloroethene	ug/L					1 (J)			8 (B)	
trans-1,2-Dichloroethene	ug/L					1 (J)				
Trichloroethene	ug/L			1 (J)		4 (J)			20	
Vinyl Chloride	ug/L					13		81	5	

Well ID: 93EM-SP-11

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	172		240		206		162	137	
Chloride	mg/L	288		570		246		285	139	
Conductivity	mohm/cm							1.40	1.63	
Dissolved Oxygen	mg/L	0.59		0.67		0.00		0.0	0.69	
DOC	mg/L			1.74		7.08		267		
DOC Average Quads	mg/L								2.5	
Ferrous Iron	mg/L	0.44		0.46		1.93		195	1.84	
Methane	PPB	55								
Methane	ug/L			3.1						
Nitrate	mg/L	116		0.12		0		0.0	0.15	
Nitrite	mg/L	0.019		0.036		0.019		0.016	0.006	
pH		6.43		6.87		7.04		6.67	7.13	
Redox	mV	34		68		-36		-21	-36	
Salinity								0.1		
Sulfate	mg/L	0.14		54		80		80.0	80	
Sulfide	mg/L					1				
TDS								0.9		
Temperature	C							13.0	13.41	
Turbidity	NTUs							117.0	33	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	0.3 (JB)		0.1 (JB)						
Diethylphthalate	ug/L			0.06 (JB)						
Di-n-butylphthalate	ug/L	0.7 (JB)		0.07 (JB)						

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	1 (J)				4 (J)				
Methylene Chloride	ug/L	0.3 (J)		0.4 (J)				0.7 (JB)	0.3 (J)	

Well ID: 93EM-SP-13

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	230		2150		224		199	164	
Chloride	mg/L	140		113.6		68		110	83	
Conductivity	mohm/cm							0.815	0.624	
Dissolved Oxygen	mg/L	0.69		0.00		0.00		0.0	0.95	
DOC	mg/L			1		6.27		2.83		
DOC (Dup)	mg/L					6.33				
DOC Average Quads	mg/L								4.5	
Ferrous Iron	mg/L	0.11		0		0.01		0.05	0.01	
Methane	PPB	1300 (D)								
Methane	ug/L				1200			1900 (D)	190	
Methane (Dup)	ug/L					40				
Nitrate	mg/L	0.05		0.33		0.05		0.17	0.03	
Nitrite	mg/L	0.027		0.045		0.026		0.035	0.005	
pH		7.20		7.33		7.55		7.54	5.69	
Redox	mV	-276		-174		-171		-236	-159	
Salinity								0.0		
Sulfate	mg/L	30		41		1		7	8	
Sulfide	mg/L			1		1				
Sulfide (Dup)	mg/L					1				
TDS								0.52		
Temperature	C								15.78	
Temperature								14.16 (C)		
Turbidity	NTUs							13.5	0	

Well ID: 93EM-SP-13

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2,4-Dimethylphenol	ug/L					0.2 (J)				
Acenaphthene	ug/L			0.2 (J)		0.3 (J)			0.5 (J)	
Acenaphthene (Dup)	ug/L					0.4 (J)				
Benzo(a)pyrene	ug/L					0.1 (J)				
Benzo(b)fluoranthene	ug/L			0.09 (J)		0.1 (J)				
Benzo(k)fluoranthene	ug/L			0.06 (J)		0.1 (J)				
bis(2-Ethylhexyl)phthalate	ug/L			5 (JB)		0.5 (JB)		0.6 (JB)		
bis(2-Ethylhexyl)phthalate (Dup)	ug/L					0.5 (JB)				
Butyl benzyl phthalate	ug/L								0.5 (J)	
Butylbenzylphthalate	ug/L			0.8 (JB)		0.2 (J)		0.4 (J)		
Butylbenzylphthalate (Dup)	ug/L					0.3 (J)				
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.5 (JB)		0.2 (J)				
Di-n-butylphthalate (Dup)	ug/L					0.2 (J)				
Di-n-octylphthalate	ug/L			0.1 (JB)						
Fluoranthene	ug/L			0.2 (J)		0.3 (J)		0.2 (J)		
Fluoranthene (Dup)	ug/L					0.3 (J)				
Fluorene	ug/L			0.09 (J)		0.4 (J)		0.3 (J)	0.9 (J)	
Fluorene (Dup)	ug/L					0.4 (J)				
Pyrene	ug/L			0.5 (J)		0.5 (J)		0.4 (J)		
Pyrene (Dup)	ug/L					0.6 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					5 (J)				
cis-1,2-Dichloroethene	ug/L			0.3 (J)						
Methylene Chloride	ug/L			1 (JB)		2 (J)				
Methylene Chloride (Dup)	ug/L					2 (J)				
Tetrachloroethene	ug/L								0.6 (J)	

Well ID: 93EM-SP-9

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L							578		
Chloride	mg/L							4252		
Conductivity	mohm/cm							19.1		
Dissolved Oxygen	mg/L					2.81		0.0		
DOC	mg/L							200		
Ferrous Iron	mg/L							0.21		
Methane	ug/L							3.3		
Nitrate	mg/L							0.0		
Nitrite	mg/L							0.0		
pH						7.92		7.11		
Redox	mV					58		100		
Salinity								1.3		
Sulfate	mg/L							80		
TDS								13		
Temperature	C							14.22		
Turbidity	NTUs							783		

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L							.4 (J)		

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Chloroform	ug/L					0.8 (J)		1 (J)		
Methylene Chloride	ug/L					3 (JB)		1 (JB)		

Well ID: 94EM-MW-19

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	165		195		207		277	167	
Chloride	mg/L	227		363		56		239	164	
Conductivity	mohm/cm							1.10	0.896	
Dissolved Oxygen	mg/L	0.09		3.00		0.00		0.0	0.84	
DOC	mg/L	1.15		2.24		1.39		1.96		
DOC (Dup)	mg/L							1.52		
DOC Average Quads	mg/L								2.3	
Ferrous Iron	mg/L	0.82		0.36		1.53		0.34	0.06	
Methane	PPB	74								
Methane	ug/L							4.6		
Methane (Dup)	ug/L							3.1		
Nitrate	mg/L	0.02		0.15		0.04		0.0	0	
Nitrite	mg/L	0.022		0		0		0.140	0	
pH		6.14		6.90		7.00		6.95	7.47	
Redox	mV	5.2		59		-33		13	20	
Salinity								0.0		
Sulfate	mg/L	69		48		34		53	30	
Sulfide	mg/L			1		1				
TDS								0.7		
Temperature	C							12.11	13.27	
Turbidity	NTUs							539	969	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)		2 (JB)				
bis(2-Ethylhexyl)phthalate (Dup)	ug/L							.7 (J)		
Butylbenzylphthalate	ug/L			0.4 (J)						
Diethylphthalate	ug/L							0.4 (J)		
Di-n-butylphthalate	ug/L			0.3 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					3 (J)				
Methylene Chloride	ug/L			1 (J)		0.8 (J)				

Well ID: 94EM-MW-20

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	76		45		100		123	64	
Chloride	mg/L	1530				3400		2113	993	
Conductivity	mohm/cm							9.71	3.83	
Dissolved Oxygen	mg/L	1.23		2.50		0.00		0.0	0.88	
DOC	mg/L	1.61		3.48		1.21		1.56		
DOC Average Quads	mg/L								1.5	
Ferrous Iron	mg/L	3.3		3.3		3.3		3.3	3.3	
Methane	PPB	24								
Methane	ug/L					6.6		8.9		
Nitrate	mg/L	0.06		0.49		0		0.0	1.88	
Nitrite	mg/L	0.016		0.013		0		0.002	0.004	
pH		5.61		6.30		6.21		6.1	6.59	
Redox	mV	-75		27		-8		-45	-78	
Salinity								0.5		
Sulfate	mg/L	45		39		25		23	15	
Sulfide	mg/L			1		1				
TDS								6.0		
Temperature	C							13.78		
Temperature	C								15.07	
Turbidity	NTUs							107.0	131	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			3 (JB)		1 (JB)		0.3 (JB)		
Diethylphthalate	ug/L	0.2 (JB)		0.5 (J)				0.3 (J)		
Di-n-butylphthalate	ug/L	0.4 (JB)		0.2 (J)				0.1 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					3 (J)				
Methylene Chloride	ug/L	0.5 (J)				0.8 (J)		0.6 (JB)		
Toluene	ug/L	0.2 (J)								

Well ID: 94EM-MW-21

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	139		107		214		171	146	
Chloride	mg/L	1125		835		580		279	528	
Conductivity	mohm/cm							1.82	2.83	
Dissolved Oxygen	mg/L	0.46		6.90		0.00		0.0	0.82	
DOC	mg/L	2.58		4.31		3.23		4.05		
DOC Average Quads	mg/L								2.3	
Ferrous Iron	mg/L			0		0.03		0.0	0.15	
Methane	ug/L							4.1		
Methane	PPB	2.9								
Nitrate	mg/L	0.55		2.43		0		0.42	2.43	
Nitrite	mg/L	0.375		0		0.05		0.069	0.375	
pH		6.44		6.70		7.41		7.16	7.84	
Redox	mV	-12.2		110		-49		-4	62	
Salinity								0.1		
Sulfate	mg/L	80		0.65		80		80	80	
Sulfide	mg/L			1		1				
TDS								1.2		
Temperature	C							13.24	15.24	
Turbidity	NTUs							158	172	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		2 (JB)				0.3 (JB)		
Diethylphthalate	ug/L	0.3 (JB)								
Di-n-butylphthalate	ug/L	0.6 (JB)		0.2 (J)				0.1 (J)		
Di-n-octylphthalate	ug/L							0.4 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (JB)				3 (J)				
4-Methyl-2-Pentanone	ug/L	0.6 (JB)								
Methylene Chloride	ug/L			3 (J)		0.4 (J)		0.6 (JB)		

ell ID: B121-N

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	269		165		188		117	176	
Chloride	mg/L	353		180		34		152	128	
Conductivity	mohm/cm							0.716	0.779	
Dissolved Oxygen	mg/L	0.44		0.40		0.00		0.0	0.72	
DOC	mg/L	3.95		4.11		3.96		6.38		
DOC Average Quads	mg/L								3.3	
Ethane	PPB	200								
Ethane	ug/L			31.9		12				
Ethene	ug/L			43.7		9.0				
Ethene	PPB	200								
Ferrous Iron	mg/L	1.52		3.3		0.44		0.07	0.18	
Methane	ug/L			1460		280		28	160	
Methane	PPB	3400 (D)								
Nitrate	mg/L			0.31		0.04		0.02	0.02	
Nitrite	mg/L	0.003		0.027		0		0.006	0	
pH		7.67		7.80		7.79		8.08	8.2	
Redox	mV	-199		-206		-217		-231	-205	
Salinity								0.0		
Sulfate	mg/L	13		80		2		1.0	25	
Sulfide	mg/L			1						
TDS								0.46		
Temperature	C							15.04	15.96	
Turbidity	NTUs							447	637	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthene	ug/L	1 (J)		1 (J)		2 (J)		0.6 (J)	2 (J)	
bis(2-Ethylhexyl)phthalate	ug/L	0.3 (JB)		0.7 (JB)				2 (J)		
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.6 (JB)						0.3 (J)		
Di-n-octylphthalate	ug/L	0.1 (JB)								
Fluoranthene	ug/L							0.2 (J)		
Fluorene	ug/L					0.2 (J)				
Pyrene	ug/L	0.1 (J)		0.2 (JB)				0.7 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzene	ug/L			0.5 (J)		0.7				
cis-1,2-Dichloroethene	ug/L	110		80		36				
Methylene Chloride	ug/L			2 (JB)		0.6 (J)				
Tetrachloroethene	ug/L							1 (J)		
trans-1 2-Dichloroethene	ug/L								2 (J)	
trans-1,2-Dichloroethene	ug/L	3 (J)		2 (J)		2 (J)				
Trichloroethene	ug/L					0.5 (J)				
Vinyl chloride	ug/L	260		110		130			90	

Well ID: B121-S

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	100		106		37		15	80	
Chloride	mg/L	1204		985		478		877	819	
Conductivity	mohm/cm							3.13	3.64	
Dissolved Oxygen	mg/L	0.46		0.30		0.00		0.0	0.6	
DOC	mg/L	2.32		2.42		1.35		2.69		
DOC Average Quads	mg/L								3.7	
DOC Average Quads (Dup)	mg/L								1.8	
Ethane	ug/L							16		
Ferrous Iron	mg/L	8.96		3.3		2.01		3.3	3.3	
Methane	ug/L			1470		390		3100 (D)	400 (E)	
Methane (Dup)	ug/L								390 (E)	
Nitrate	mg/L	>80		0		0		0.0	0	
Nitrite	mg/L	>80		0		0		0.0	0	
pH		6.95		7.70		7.78		7.31	8.12	
Redox	mV	-215		-283		-305		-270	-185	
Salinity								0.2		
Sulfate	mg/L	305		80		80		80	80	
Sulfide	mg/L			1						
TDS								2.0		
Temperature	C							17.15	18.1	
Turbidity	NTUs							85.8	53.2	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.2 (JB)		0.1 (JB)				0.3 (J)		
Diethylphthalate	ug/L	0.2 (JB)		0.07 (JB)		0.2 (J)				
Di-n-butylphthalate	ug/L	0.8 (JB)		0.09 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)		0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
cis-1,2-Dichloroethene	ug/L	77		44		59		33		
Methylene Chloride	ug/L			2 (JB)		0.6 (J)		0.9 (JB)		
trans-1,2-Dichloroethene	ug/L			0.4 (J)						
Trichloroethene	ug/L	0.6 (J)								
Vinyl chloride	ug/L	28		22		25		32	27	
Vinyl chloride (Dup)	ug/L								27	

Well ID: WVA-AW-135-MW-1

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	228		192		199		81	244	
Chloride	mg/L	180		193		196		53	127	
Conductivity	mohm/cm							0.884	0.843	
Dissolved Oxygen	mg/L	0.72		0.30		0.00		0.0	0.87	
DOC	mg/L			48.4		1.79				
DOC Average Quads	mg/L								5.3	
Ferrous Iron	mg/L	0.07		0.04		0.01		0.0	0.01	
Methane	PPB	5600 (D)								
Methane	ug/L			1420				4300 (E)	740 (E)	
Nitrate	mg/L	4.08		0.57		0.21		0.04	0.09	
Nitrite	mg/L	0.008		0.036		0.004		0.010	0.011	
pH		8.46		8.50		8.47		9.22	9.84	
Redox	mV	109		26		94		145	-123	
Salinity								0.0		
Sulfate	mg/L	16		24		29		6	9	
TDS								0.56		
Temperature								18.94 (C)		
Temperature	C								19.19	
Turbidity	NTUs							28.8	285	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)				0.4 (J)				
Butylbenzylphthalate	ug/L			0.3 (J)						
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.5 (JB)		0.2 (JB)		0.1 (J)				

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,1,1-Trichloroethane	ug/L			0.5 (J)						
2-Butanone	ug/L					6 (J)				
Methylene Chloride	ug/L			0.7 (JB)		1 (JB)		.8 (JB)		
Toluene	ug/L	0.6 (J)								

Well ID: WVA-AW-135-MW-2

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	14		39		53		46	58	
Chloride	mg/L	558		195		418		526	233	
Conductivity	mohm/cm							1.79	0.865	
Dissolved Oxygen	mg/L	2.18		5.20		1.14		0.0	4.81	
DOC	mg/L			2.49		2.98				
DOC Average Quads	mg/L								0.52 (B)	
Ferrous Iron	mg/L	0.21		0.29		0.05		0.02	1.01	
Methane	ug/L					2.4				
Nitrate	mg/L	0.49		0.49		0.37		0.2	1.26	
Nitrite	mg/L	0.027		0.45		0.259		0.015	0.65	
pH		10.23		10.8		9.21		8.77	5.2	
Redox	mV	39		32		149		200	26	
Salinity								0.1		
Sulfate	mg/L	72		329		80		30	9	
Sulfide	mg/L					1				
TDS								1.1		
Temperature								10.95		
Temperature	C								14.4	
Turbidity	NTUs							34.2	163	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	.4 (JB)		0.5 (JB)		0.4 (JB)		.2 (JB)		
Diethylphthalate	ug/L	0.3 (JB)		0.1 (JB)						
Di-n-butylphthalate	ug/L	3 (JB)		0.3 (JB)						
Di-n-octylphthalate	ug/L	0.2 (JB)								
Naphthalene	ug/L					0.2 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Methylene Chloride	ug/L	0.9 (J)		2 (J)		3 (JB)		.9 (JB)		
Tetrachloroethene	ug/L								0.8 (J)	
Toluene	ug/L	0.1 (J)								

ell ID: WVA-AW-135-MW-4

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	136		905		170		92	110	
Chloride	mg/L	740		807		597		466	293	
Conductivity	mohm/cm							1.88	1.63	
Dissolved Oxygen	mg/L	0.68		0.60		0.00		0.0	0.62	
DOC	mg/L			1.08		3.35				
DOC Average Quads	mg/L								0.41 (B)	
Ethane	ug/L								140	
Ethene	ug/L								140	
Ferrous Iron	mg/L	0.03		0		0		0.01	0	
Methane	PPB	3.6								
Methane	ug/L					2.3			75	
Nitrate	mg/L	0.55		1.44		0.55		0.55	2.43	
Nitrite	mg/L	0.015		0.14		0.048		0.008	0.016	
pH		7.31		7.4		7.68		7.5	7.25	
Redox	mV	158		28		190		248	103	
Salinity								0.1		
Sulfate	mg/L	14		19		24		18	11	
Sulfide	mg/L					1				
TDS								1.2		
Temperature	C								17.62	
Temperature								16.61 (C)		
Turbidity	NTUs							25.5	0	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	.5 (JB)		0.2 (JB)		0.2 (JB)		.3 (JB)		
Diethylphthalate	ug/L	0.3 (JB)								
Di-n-butylphthalate	ug/L	3 (JB)		0.07 (JB)						
Di-n-octylphthalate	ug/L	0.2 (JB)								

ETHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	3 (JB)								
2-Chloroethylvinylether	ug/L	5								
Carbon Tetrachloride	ug/L	5								
Chloroethane	ug/L	5								
Methylene Chloride	ug/L	0.9 (J)		5		3 (JB)		.7 (JB)		
Tetrachloroethene	ug/L			1 (J)					1 (JB)	
Trichloroethene	ug/L			1 (J)						

Well ID: WVA-AW-25-MW-1

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	164		270		170		114	90	
Chloride	mg/L	506		740		223		116	125	
Conductivity	mohm/cm							0.911	0.301	
Dissolved Oxygen	mg/L	0.27		1.22		0.00		0.0	0.89	
DOC	mg/L	4.73		3.62		4.76		236		
DOC Average Quads	mg/L								3.3	
Ferrous Iron	mg/L	0.05		0.15		0.17		0.02	0.08	
Methane	PPB	260								
Methane	ug/L			96.7				120	7.9	
Nitrate	mg/L	0.06		0.33		0.01		0.09	0	
Nitrite	mg/L	0.029		0.147		0.042			0.013	
pH		8.11		11.68		8.59		9.81	10.49	
Redox	mV	-16.6		-36		68		122	-77	
Salinity								0.0		
Sulfate	mg/L	80		80		80		54.0	15	
Sulfide	mg/L					1				
TDS								0.62		
Temperature	C							13.15	13.96	
Turbidity	NTUs							166	219	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.3 (JB)		0.5 (J)		1 (J)		
Di-n-butylphthalate	ug/L	0.6 (JB)		0.07 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)								
Fluoranthene	ug/L			0.1 (J)		0.1 (J)		.5 (J)		
Naphthalene	ug/L	0.2 (J)								
Phenanthrene	ug/L			0.06 (J)				.3 (J)		
Phenol	ug/L	0.8 (J)		0.3 (J)						
Pyrene	ug/L			0.1 (J)		0.07 (J)		.3 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					3 (J)				
2-Butanone (MEK)	ug/L								7 (JB)	
Carbon Disulfide	ug/L					0.8 (J)				
Methylene Chloride	ug/L			0.4 (J)		2 (J)		.7 (JB)		
Tetrachloroethene	ug/L			3 (J)						
Toluene	ug/L	0.2 (J)								

Well ID: WVA-AW-25-MW-2

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	189		380		190		227	173	
Chloride	mg/L	341		290		278		250	107	
Conductivity	mohm/cm							1.27	1.21	
Dissolved Oxygen	mg/L	0.34		0.57		0.00		0.0	0.53	
DOC	mg/L					1.54		1.46		
DOC Average Quads	mg/L								320	
Ferrous Iron	mg/L	0.02		0		0.14		0.0	2.09	
Methane	ug/L			12.8		5.2		10	5.2	
Methane	PPB	130								
Nitrate	mg/L	0.04		0.33		1.41		0.38	0.01	
Nitrite	mg/L	0.019		0.047		0.004		0.0	0	
pH		6.38		6.87		7.09		7.00	6.27	
Redox	mV	84.6		191		205		241	-268	
Salinity								0.1		
Sulfate	mg/L	80		80		71		80	11	
Sulfide	mg/L					1		1	8	
TDS								0.8		
Temperature								16.86 (C)		
Temperature	C								15.68	
Turbidity	NTUs							23.9	4.4	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)		0.3 (JB)		0.1 (JB)				
Butylbenzylphthalate	ug/L			0.2 (J)						
Diethylphthalate	ug/L	0.2 (JB)		0.2 (JB)						
Di-n-butylphthalate	ug/L	0.7 (JB)		0.3 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)		0.03 (J)						
Phenol	ug/L	1								

Well ID: WVA-AW-25-MW-2

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1 1 1-Trichloroethane	ug/L								26	
1 1-Dichloroethane	ug/L								4 (J)	
1 1-Dichloroethene	ug/L								1 (J)	
1,1,1-Trichloroethane	ug/L	49		51		51		43		
1,1-Dichloroethane	ug/L	3 (J)		4 (J)		3 (J)		3 (J)		
1,1-Dichloroethene	ug/L	2 (J)		2 (J)		2 (J)		2 (J)		
2-Butanone	ug/L					4 (JB)				
Bromomethane	ug/L								2 (J)	
Carbon Disulfide	ug/L					0.8 (J)				
Chloroform	ug/L	2 (J)				1 (J)		.8 (J)	0.4 (J)	
cis-1,2-Dichloroethene	ug/L	11		13		12		13		
Methylene chloride	ug/L			0.6 (J)		0.5 (JB)			0.4 (J)	
Tetrachloroethene	ug/L			2 (J)						
trans-1 2-Dichloroethene	ug/L								0.3 (J)	
trans-1,2-Dichloroethene	ug/L					1 (J)				
Trichloroethene	ug/L	120		170		170		160	45	
Vinyl Chloride	ug/L					0.6 (J)				

Well ID: WVA-AW-25-MW-3

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	186		190		178		168	240	
Chloride	mg/L	409		400		380		396	114	
Conductivity	mohm/cm							1.81	1.68	
Dissolved Oxygen	mg/L	1.27		0.87		0.00		0.0	0.65	
DOC	mg/L	2.36		3.62		1.86		3.65		
DOC (Dup)	mg/L					2.02		4.49		
DOC Average Quads	mg/L								3.6	
Ferrous Iron	mg/L	0.03		0		0		0.05	1.76	
Methane	PPB	310								
Methane	ug/L			7.9		32		6.4	8.3	
Methane (Dup)	ug/L					72		6.2		
Nitrate	mg/L	0.2		0.21		0.78		0.74	0.02	
Nitrite	mg/L	0.028		0.02		0.013		0.067	0.003	
pH		6.36		6.85		7.17		6.96	7.37	
Redox	mV	83		125		63		301	-213	
Salinity								0.1		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L					1				
Sulfide (Dup)	mg/L					1				
TDS								1.2		
Temperature								13.9 (C)		
Temperature	C								14.83	
Turbidity	NTUs							50.6	6.6	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.3 (JB)		0.1 (JB)		0.3 (JB)		
bis(2-Ethylhexyl)phthalate (Dup)	ug/L					0.2 (JB)				
Diethylphthalate	ug/L	0.2 (JB)		0.1 (JB)						
Di-n-butylphthalate	ug/L	0.7 (JB)		0.2 (JB)						

Well ID: WVA-AW-25-MW-3

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1 1 1-Trichloroethane	ug/L								43	
1 1-Dichloroethane	ug/L								6 (J)	
1 1-Dichloroethene	ug/L								2 (J)	
1,1,1-Trichloroethane	ug/L	49		51		47		41		
1,1,1-Trichloroethane (Dup)	ug/L					41		36		
1,1-Dichloroethane	ug/L	6 (J)		4 (J)		5 (J)		4 (J)		
1,1-Dichloroethane (Dup)	ug/L					2 (J)		3 (J)		
1,1-Dichloroethene	ug/L	2 (J)		3 (J)				2 (J)		
1,1-Dichloroethene (Dup)	ug/L					2 (J)				
2-Butanone	ug/L					15 (J)				
2-Butanone (Dup)	ug/L					4 (J)				
Carbon Disulfide (Dup)	ug/L					2 (J)				
Chloroform	ug/L	2 (J)				1 (J)		0.9 (J)		
Chloroform (Dup)	ug/L					0.9 (J)		.6 (J)		
cis-1,2-Dichloroethene	ug/L	28		22		25		17		
cis-1,2-Dichloroethene (Dup)	ug/L					10		14		
Methylene Chloride	ug/L	1 (J)		5 (J)		3 (J)		3 (JB)		
Methylene Chloride (Dup)	ug/L							2 (JB)		
Tetrachloroethene	ug/L	0.7 (J)								
trans-1,2-Dichloroethene	ug/L					3 (J)				
trans-1,2-Dichloroethene (Dup)	ug/L					0.8 (J)				
Trichloroethene	ug/L	280		330		330		290	220	
Trichloroethene (Dup)	ug/L					140		250		
Vinyl Chloride	ug/L	3 (J)							3 (J)	
Vinyl Chloride (Dup)	ug/L					0.9 (J)				

Well ID: WVA-AW-25-MW-5

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	245		208		234		176	77	
Carbon Dioxide	PPB	3600								
Chloride	mg/L	1049		1043		486			103	
Conductivity	mohm/cm							2.75	0.947	
Dissolved Oxygen	mg/L	0.34		1.40		0.00		0.0	1.57	
DOC	mg/L	6.34		7.41		8.36		6.4		
DOC Average Quads	mg/L								3.6	
Ferrous Iron	mg/L	3.3		0.04		1.54		2.56	0	
Methane	PPB	91								
Methane	ug/L				180			110		
Nitrate	mg/L	0.04		0.41		0.04		0.06	0.03	
Nitrite	mg/L	0.007		0.48		0.072		0.002	0.118	
pH		6.41		6.90		7.14		6.99	7.78	
Redox	mV	-36.3		-24		-58		-79	2	
Salinity								0.2		
Sulfate	mg/L			80		32		35	14	
Sulfide	mg/L			1		1				
TDS								1.7		
Temperature	C								15	
Turbidity	NTUs							640	46.5	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
4-Chloro-3-methylphenol	ug/L							110		
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		6 (JB)		2 (JB)		.4 (J)		
Butylbenzylphthalate	ug/L			0.8 (JB)						
Diethyl phthalate	ug/L								3 (J)	
Diethylphthalate	ug/L	0.2 (J)		0.1 (JB)						
Di-n-butylphthalate	ug/L	0.6 (JB)		0.2 (JB)				.4 (J)		
Di-n-octylphthalate	ug/L			0.5 (JB)						
Fluoranthene	ug/L			0.06 (J)				.2 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1-Dichloroethane	ug/L	1 (J)		0.6 (J)		0.6 (J)				
2-Butanone	ug/L					3 (J)				
cis-1,2-Dichloroethene	ug/L	1 (J)		0.6 (J)		0.8 (J)				
Methylene Chloride	ug/L			0.6 (JB)		1 (JB)		.6 (JB)		
Trichloroethene	ug/L					0.2 (J)				

Well ID: WVA-AW-25-MW-6

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			1730		158		154	13	
Chloride	mg/L			1064		1250		1372	363	
Conductivity	mohm/cm							5.30	5.88	
Dissolved Oxygen	mg/L	0.63		1.57				0.52	1.49	
DOC	mg/L							2.1		
DOC Average Quads	mg/L								1.6	
Ferrous Iron	mg/L			0.09		0.41		0.00	0	
Nitrate	mg/L			2.3		0.01		0.55	2.43	
Nitrite	mg/L			0.131		0.133		0.017	0.01	
pH		6.63		7.10				7.2	7.63	
Redox	mV	110.4		177				226	90	
Salinity								0.3		
Sulfate	mg/L			80		80		80	80	
TDS								3.3		
Temperature								14.56 (C)		
Temperature	C								15.22	
Turbidity	NTUs							43.9	0	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L					0.4 (J)		.6 (JB)		
Butylbenzylphthalate	ug/L							.2 (J)		
Di-n-butylphthalate	ug/L							.2 (J)		
Di-n-octylphthalate	ug/L							.2 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1 1 1-Trichloroethane	ug/L								6 (J)	
1,1,1-Trichloroethane	ug/L					6		5 (J)		
1,1-Dichloroethane	ug/L					0.5 (J)				
2-Butanone	ug/L					4 (JB)				
Carbon Disulfide	ug/L					2 (J)				
Chloroform	ug/L					0.5 (J)			0.4 (J)	
cis-1,2-Dichloroethene	ug/L					0.9 (J)				
Methylene Chloride	ug/L					3 (JB)		4 (JB)		
Trichloroethene	ug/L					160		190	210	

Well ID: WVA-AW-35-MW-5

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	104		210		144		137	108	
Chloride	mg/L	168		290		50		134	78	
Conductivity	mohm/cm							0.797	0.709	
Dissolved Oxygen	mg/L	0.34		9.75		0.00		0.0	0.68	
DOC	mg/L			1.32		2.68		4.33		
DOC Average Quads	mg/L								0.74 (B)	
Ferrous Iron	mg/L			0.02		0.07		0.0	0.13	
Methane	PPB	1300								
Methane	ug/L							230		
Nitrate	mg/L	0.18		0.2		0.04		0.03	0.64	
Nitrite	mg/L	0.014		0.024		0.043		0.005	0.058	
pH		8.76		8.54		9.00		8.74	9.39	
Redox	mV	-11		93		36		149	-168	
Salinity	mg/L							0.0		
Sulfate	mg/L	56		31		14		40	26	
Sulfide	mg/L					1				
TDS								0.51		
Temperature	C							14.69	15.8	
Turbidity	NTUs							327.0	0	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	0.4 (JB)		0.3 (JB)						
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	.6 (JB)								
Di-n-octylphthalate	ug/L	0.2 (JB)								

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,1,2,2-Tetrachloroethane	ug/L	1 (J)								
2-Butanone	ug/L					4 (J)				
4-Methyl-2-Pentanone	ug/L	0.6 (JB)								
Methylene chloride	ug/L			1 (J)				6	0.2 (J)	

Well ID: WVA-AW-35-MW-8

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	147				89		92	68	
Chloride	mg/L	506				96		813	476	
Conductivity	mohm/cm							2.85	3.36	
Dissolved Oxygen	mg/L	0.65		6.00		0.00		0.0	0.73	
DOC	mg/L			4.61		7.5		5.02		
DOC Average Quads	mg/L								4.3	
Ferrous Iron	mg/L					0.1		0.04	0	
Methane	ug/L			223		13				
Nitrate	mg/L	0.09				0.06		0.02	0.03	
Nitrite	mg/L	0.017				0.033		0.003	0.004	
pH		7.93		7.70		8.77		7.88	8.3	
Redox	mV	-149		30		-105		155	-51	
Salinity								0.1		
Sulfate	mg/L	68				20		17	8	
Sulfide	mg/L					1				
TDS								1.8		
Temperature	C							14.65	16.34	
Turbidity	NTUs							31.5	227	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.5 (JB)		0.8 (J)		.6 (J)		
Chrysene	ug/L					0.2 (J)				
Diethylphthalate	ug/L					0.3 (J)				
Di-n-butylphthalate	ug/L					0.6 (J)				
Fluoranthene	ug/L					1 (J)				
Pentachlorophenol	ug/L					3 (J)				
Pyrene	ug/L			0.2 (J)		0.2 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					4 (J)				
Carbon Disulfide	ug/L					22				
Ethylbenzene	ug/L			0.4 (J)						
Methylene Chloride	ug/L			0.7 (J)		2 (J)		.6 (JB)		
Toluene	ug/L			2 (J)						
Xylene (total)	ug/L			2 (J)						

ell ID: WVA-AW-MW-20

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			1930		580			106	
Chloride	mg/L			1379.2		204			84	
Conductivity	mohm/cm							2.03		
Dissolved Oxygen	mg/L			5.79		1.77		4.31		
DOC	mg/L			3.62						
Ferrous Iron	mg/L			0.1		0.28			0.18	
Methane	ug/L			102						
Nitrate	mg/L			2.43		0.06			2.43	
Nitrite	mg/L			0.039		0.017			0.08	
pH				6.51		6.81		7.12		
Redox	mV			189		339		137		
Salinity								0.1		
Sulfate	mg/L			21		12			80	
TDS								1.3		
Temperature	C							10.58		
Turbidity	NTUs							27.8		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.2 (JB)						
Butylbenzylphthalate	ug/L			0.2 (J)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.04 (J)						

ETHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
cis-1,2-Dichloroethene	ug/L							.9 (J)		
Methylene Chloride	ug/L					2 (JB)				
Tetrachloroethene	ug/L							.8 (J)	0.4 (J)	

Well ID: WVA-AW-MW-22

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	286		1930		177		199	188	
Chloride	mg/L	367		363.6		423		456	354	
Conductivity	mohm/cm							2.06	2.06	
Dissolved Oxygen	mg/L	1.00		2.61		0		0.0	1.21	
DOC	mg/L			3.87		2.8		2.18		
DOC Average Quads	mg/L								2.1	
Ferrous Iron	mg/L	0.02		0.02		0.11		0.0	0.02	
Methane	PPB	2.1								
Methane	ug/L				46					
Nitrate	mg/L	6.52		1.96		0.05		0.05	0.43	
Nitrite	mg/L	0.011		0.051		0.038		0.014	0.19	
pH		7.18		7.79		7.46		7.25	6.73	
Redox	mV	140		219		132		256	81	
Salinity								0.1		
Sulfate	mg/L	31		29		19		16	54	
Sulfide	mg/L			1		1				
TDS								1.3		
Temperature	C							11.83	13.2	
Turbidity	NTUs							79.0	1	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)		6 (JB)						
Butylbenzylphthalate	ug/L			0.5 (JB)						
Diethylphthalate	ug/L			0.09 (JB)						
Di-n-butylphthalate	ug/L	0.5 (JB)		0.3 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)						
Phenol	ug/L			0.07 (JB)						
Pyrene	ug/L			0.04 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					4 (J)				
Benzene	ug/L	1								
Carbon disulfide	ug/L					0.7 (J)			0.4 (J)	
Chloromethane	ug/L	2 (J)								
Methylene Chloride	ug/L							5	0.4 (J)	

ell ID: WVA-AW-MW-23

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	85		670				75	49	
Chloride	mg/L	20		32.8				30	0	
Conductivity	mohm/cm							0.211	0.227	
Dissolved Oxygen	mg/L	0.74		3.63		0.12		0.0	1.81	
DOC	mg/L	1.16		6.51				1.55		
DOC Average Quads	mg/L								0.82 (B)	
Ferrous Iron	mg/L	0.17		0				0.0	0	
Methane	ug/L			20.1				40 ( )		
Methane	PPB	16								
Nitrate	mg/L	0.34		0.92				0.06	0.51	
Nitrite	mg/L	0.016		0.125				0.016	0.036	
pH		6.59		6.57		6.8		7.05	7.3	
Redox	mV	74		357		55		311	135	
Salinity								0.0		
Sulfate	mg/L	15		32				20	29	
TDS								0.14		
Temperature								13.94 (C)		
Temperature	C								17.6	
Turbidity	NTUs							74.8	82.5	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)		0.4 (J)				.3 (JB)		
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.3 (JB)		0.2 (JB)				.1 (J)		
Di-n-octylphthalate	ug/L	0.2 (JB)						.2 (J)		

ETHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Chlorobenzene	ug/L	3 (J)								
cis-1,2-Dichloroethene	ug/L	0.6 (J)								
Methylene Chloride	ug/L	0.8 (JB)		0.4 (J)		1 (J)				
Trichloroethene	ug/L	0.3 (J)								

Well ID: WVA-AW-MW-24

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	390		2420					375	
Carbon Dioxide	PPB	370								
Chloride	mg/L	126		299.2					61	
Conductivity	mohm/cm							2.47		
Dissolved Oxygen	mg/L	2.17				1.97		5.96		
DOC	mg/L	47.8								
DOC Average Quads	mg/L								8.3	
Ferrous Iron	mg/L	0.45		0.37					0.35	
Methane	PPB	3600								
Methane	ug/L			9.4				270 ( )		
Nitrate	mg/L	0.31		0.35					0.13	
Nitrite	mg/L	0.024		0.008					0	
pH		6.73				7.00		7.23		
Redox	mV	-51				-129		-34		
Salinity								0.1		
Sulfate	mg/L			41					0	
TDS								1.4		
Temperature								17.61 (C)		
Turbidity	NTUs							166		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Bis(2-ethylhexyl)phthalate	ug/L	0.8 (JB)		1 (JB)					0.8 (J)	
Di-n-butylphthalate	ug/L	0.5 (JB)								
Di-n-octylphthalate	ug/L	0.4 (JB)								
Fluoranthene	ug/L	0.1 (J)		0.1 (J)						
Pyrene	ug/L	0.1 (J)		0.3 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1,2,2-Tetrachloroethane	ug/L			0.6 (J)		0.8 (J)				
2-Butanone	ug/L	7 (JB)		2 (J)		5 (J)				
4-Methyl-2-Pentanone	ug/L	0.9 (JB)		1 (J)						
Benzene	ug/L	0.7								
Chlorobenzene	ug/L					0.2 (J)				
Methylene Chloride	ug/L			3 (J)		0.9 (J)		.7 (JB)		
Toluene	ug/L			0.2 (J)						
Trichloroethene	ug/L					0.5 (J)				
Xylene (total)	ug/L					0.4 (J)				

ell ID: WVA-AW-MW-26

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	104		1005		115		88	113	
Chloride	mg/L	497		593.2		700		475	550	
Conductivity	mohm/cm							1.87	2.4	
Dissolved Oxygen	mg/L	0.69		0.00		2.10		0.0	1.43	
DOC	mg/L			5.53		1				
DOC Average Quads	mg/L								1.4	
DOC Average Quads (Dup)	mg/L								1.6	
Ferrous Iron	mg/L	0.01		0.13		1.55		0.0	0.17	
Methane	PPB	350								
Methane	ug/L			1450		590		2.7		
Methane (Dup)	ug/L							6.9		
Nitrate	mg/L	0.11		0.16		0.13		0.05	0.28	
Nitrite	mg/L	0.016		0.015		0.042		0.030	0.02	
pH		7.36		7.89		7.37		7.52	5.39	
Redox	mV	141		-71		-119		108	58	
Salinity								0.1		
Sulfate	mg/L	48		12		31		43	6	
Sulfide	mg/L			1		1				
TDS								1.2		
Temperature								10.79 (C)		
Temperature	C								13.51	
Turbidity	NTUs							27.1	0	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)				.3 (J)		
bis(2-Ethylhexyl)phthalate (Dup)	ug/L							.5 (J)		

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Methylene Chloride	ug/L			1 (JB)		2 (J)		1 (JB)		
Methylene Chloride (Dup)	ug/L							.5 (JB)		
Tetrachloroethene	ug/L								2 (J)	
Tetrachloroethene (Dup)	ug/L								1 (J)	

Well ID: WVA-AW-MW-27

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	205		143		194		190	192	
Carbon Dioxide	PPB	6400								
Chloride	mg/L			168		368		646	3.8	
Conductivity	mohm/cm							2.42	1.67	
Dissolved Oxygen	mg/L	0.74		0.50		1.89		0.0	2.02	
DOC	mg/L			15.5		20.2		14.9		
DOC Average Quads	mg/L								7.5	
Ferrous Iron	mg/L	3.11		1.02		2.58		2.84	1.72	
Methane	PPB	130								
Methane	ug/L							42	25	
Nitrate	mg/L	0.06		0.23		0.26		0.05	0.21	
Nitrite	mg/L	0.014		0.022		0.047		0.032	0.001	
pH		6.26		9.00		6.49		6.49	6.31	
Redox	mV	28		-42		-36		-47	-67	
Salinity								0.1		
Sulfate	mg/L			23		11		23	1	
Sulfide	mg/L			1						
TDS								1.6		
Temperature								14.51 (C)		
Temperature	C								14.22	
Turbidity	NTUs							47.2	0	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L					0.5 (J)		.5 (J)		
Di-n-butylphthalate	ug/L					0.2 (J)		.3 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					5 (J)				
Chloroform	ug/L					1 (J)				
cis-1,2-Dichloroethene	ug/L			1 (J)		2 (J)		.9 (J)		
Methylene Chloride	ug/L			4 (J)		2 (JB)		.6 (JB)		
Tetrachloroethene	ug/L								3 (J)	
Vinyl Chloride	ug/L			2		2		2	3 (J)	

Well ID: WVA-AW-MW-29

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	82		550		118		108	116	
Chloride	mg/L	930		1035.2		1306		965	935	
Conductivity	mohm/cm							3.93	4.39	
Dissolved Oxygen	mg/L	0.49		1.34		0.00		0.0	1.04	
DOC	mg/L			1		1.59		1.4		
DOC Average Quads	mg/L								0.52 (B)	
Ferrous Iron	mg/L	1.26		0.06		1.37		0.01	0	
Methane	PPB	220								
Methane	ug/L				150					
Nitrate	mg/L	0.26		0.51		0.02		0.35	0.55	
Nitrite	mg/L	0.005		0.043		0.079		0.019	0.006	
pH		6.87		7.02		7.36		7.16	6.84	
Redox	mV	-29		148		-71		158	49	
Salinity								0.2		
Sulfate	mg/L	80		2		80		80	80	
Sulfide	mg/L			1		1				
TDS								2.5		
Temperature	C							15.62	18.21	
Turbidity	NTUs							54.2	0	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (JB)		0.5 (J)		.5 (J)		
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)				.3 (J)		
Di-n-octylphthalate	ug/L			0.03 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					4 (J)				
Methylene Chloride	ug/L							.6 (JB)		
Tetrachloroethene	ug/L							.6 (J)		

Well ID: WVA-AW-MW-30

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	124		610		120		78	104	
Carbon Dioxide	ug/L				2200				5500	
Carbon Dioxide	PPB	3100								
Chloride	mg/L	985		600		2269		2413	1324	
Conductivity	mohm/cm							8.81	6.35	
Dissolved Oxygen	mg/L	0.66		0.00		0.00		0.0	1.52	
DOC	mg/L			1		5.98				
DOC Average Quads	mg/L								2.6	
Ethane	ug/L								100	
Ethene	ug/L								110	
Ferrous Iron	mg/L	0.09		0.11		0.03		0.05	0	
Methane	ug/L				14				46	
Nitrate	mg/L	0.4		1.82		0.55		0.24	2.43	
Nitrite	mg/L	0.035		0.052		0.065		0.02	0.047	
pH		5.70		6.10		6.55		6.31	7.05	
Redox	mV	208		239		170		221	132	
Salinity								0.5		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L			1		1				
TDS								5.5		
Temperature	C							13.28	15.61	
Turbidity	NTUs							49.0	41	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (JB)		0.2 (JB)		.3 (J)		
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.2 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.08 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Methylene Chloride	ug/L					3 (JB)		.8 (JB)		

Well ID: WVA-AW-MW-32

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	295		2.5		317		293	138	
Carbon Dioxide	ug/L				5200					
Chloride	mg/L	1252		784		966		1070	200	
Conductivity	mohm/cm							3.81	3.62	
Dissolved Oxygen	mg/L	4.00		6.30		0.00		0.99	2.4	
DOC	mg/L			2.42		8.34				
DOC Average Quads	mg/L								5.6	
Ferrous Iron	mg/L	0.05		0.01		0		60	0.01	
Nitrate	mg/L	0.03		0.39		0.06		0.31	0.07	
Nitrite	mg/L	0.033		0.024		0.002		0.038	0.145	
pH		6.17		6.80		6.86		6.69	7.11	
Redox	mV	120		187		240		303	136	
Salinity								0.2		
Sulfate	mg/L	51		39		49		80	46	
Sulfide	mg/L			1						
TDS								2.4		
Temperature	C							13.69	14.59	
Turbidity	NTUs							31.1	9.1	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)		0.7 (JB)		.3 (JB)		
Di-n-butylphthalate	ug/L			0.3 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					5 (J)				
Methylene Chloride	ug/L			7 (B)		0.9 (J)		2 (J)		

Well ID: WVA-AW-MW-33

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			350						
Chloride	mg/L			44.8						
Conductivity	mohm/cm							2.346		
Dissolved Oxygen	mg/L							15.22		
Ferrous Iron	mg/L			0						
Nitrate	mg/L			2.19						
Nitrite	mg/L			0.08						
pH						6.8		7.52		
Redox	mV					341				
Salinity								0.0		
Sulfate	mg/L			63						
TDS								0.26		
Temperature	C							13.13		
Turbidity	NTUs							5.2		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Chloroform	ug/L			0.2 (J)						
Methylene Chloride	ug/L			2 (J)		0.6 (JB)		.9 (J)		
Tetrachloroethene	ug/L			0.9 (J)		0.8 (J)		1 (J)	1 (J)	
Trichloroethene	ug/L			0.3 (J)						

Well ID: WVA-AW-MW-34

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	195		1320		141		132		
Chloride	mg/L	204		237.6		21		181		
Conductivity	mohm/cm							1.12		
Dissolved Oxygen	mg/L	0.57		0.82		0		1.75		
DOC	mg/L	1.44		3.43		2.11		1.75		
Ethene	ug/L			10.6						
Ferrous Iron	mg/L	0.72		0.21		0.29		0.16		
Methane	PPB	850								
Methane	ug/L			120				26		
Nitrate	mg/L	0.24		0.42		0.01		0.009		
Nitrite	mg/L	0.021		0.041		0.018				
pH		7.03		7.27		7.49		7.41		
Redox	mV	-63		12		-80		-78		
Salinity								0.0		
Sulfate	mg/L	26		95		31		21		
TDS								0.2		
Temperature	C							14.23		
Turbidity	NTUs							12.4		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.5 (JB)		0.2 (J)		0.4 (J)		.5 (JB)		
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.8 (JB)		0.1 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1,1-Trichloroethane	ug/L			11 (J)						
1,1,2,2-Tetrachloroethane	ug/L			4 (J)						
1,1-Dichloroethene	ug/L	4 (J)		7 (J)						
Chloroform	ug/L			3 (J)					2 (J)	
cis-1,2-Dichloroethene	ug/L	1,300		1400		830		1400		
Methylene Chloride	ug/L	5 (J)		10 (J)		17 (J)		29 (J)		
Tetrachloroethene	ug/L	370 (B)		170		190		1600	9 (J)	
trans-1 2-Dichloroethene	ug/L								1 (J)	
trans-1,2-Dichloroethene	ug/L	11 (J)		19 (J)		7 (J)				
Trichloroethene	ug/L	190		150		100		460		
Vinyl Chloride	ug/L	67		54		33		58		

Well ID: WVA-AW-MW-35

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	175		2520		168		226	129	
Chloride	mg/L	417		408		469		514	170	
Conductivity	mohm/cm							2.31	2.7	
Dissolved Oxygen	mg/L	0.54		0.67		0.60		0.0	0.7	
DOC	mg/L	1.27		2.3		3.48		5.43		
DOC Average Quads	mg/L								1.5	
Ethene	PPB	6.1								
Ferrous Iron	mg/L	0.16		0		0.04		0.07	0.14	
Methane	PPB	12								
Methane	ug/L			27.0		2.0			2.8	
Nitrate	mg/L	0.05		0.32		0.09		0.86	0.02	
Nitrite	mg/L	0.028		0.053		0.046		0.120	0.03	
pH		6.59		7.06		7.40		7.18	7.54	
Redox	mV	80.4		77		169		116	-10	
Salinity								0.1		
Sulfate	mg/L	80		80		80		80	80	
Sulfide	mg/L					1				
TDS								1.5		
Temperature								15.27 (C)		
Temperature	C								15.5	
Turbidity	NTUs							47.1	0	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.4 (JB)		0.7 (JB)		0.3 (J)		.1 (J)		
Diethylphthalate	ug/L	0.1 (JB)								
Di-n-butylphthalate	ug/L	0.5 (JB)								
Di-n-octylphthalate	ug/L	0.2 (JB)								

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1-Dichloroethene	ug/L			0.4 (J)						
2-Butanone	ug/L					5 (J)				
cis-1,2-Dichloroethene	ug/L	18		17		12		12		
Methylene Chloride	ug/L			2 (J)						
Tetrachloroethene	ug/L	4 (J)								
trans-1 2-Dichloroethene	ug/L								1 (J)	
trans-1,2-Dichloroethene	ug/L	2 (J)		1 (J)		2 (J)		1 (J)		
Trichloroethene	ug/L	82		74		81		64	52	
Vinyl Chloride	ug/L	2		2		2			4 (J)	

Well ID: WVA-AW-MW-36

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L			1130						
Chloride	mg/L			668						
Conductivity	mohm/cm								3.69	
Dissolved Oxygen	mg/L	3.91		7.88					2.89	
DOC	mg/L			2.67						
DOC Average Quads	mg/L								3.5	
Ferrous Iron	mg/L			0						
Nitrate	mg/L			0.23						
Nitrite	mg/L			0.46						
pH		6.32		7.07					7.41	
Redox	mV	-1		171					174	
Sulfate	mg/L			76						
Temperature	C								18.74	
Turbidity	NTUs								45.1	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Di-n-butylphthalate	ug/L			0.3 (J)						

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,1,2,2-Tetrachloroethane	ug/L			0.6 (J)						
2-Butanone	ug/L					4 (J)				
4-Methyl-2-Pentanone	ug/L			0.5 (J)						
Chlorobenzene	ug/L			0.2 (J)						
cis-1,2-Dichloroethene	ug/L			17		180		78		
Methylene Chloride	ug/L			0.3 (JB)						
Tetrachloroethene	ug/L			0.6 (J)					2 (JB)	
trans-1 2-Dichloroethene	ug/L								3 (J)	
trans-1,2-Dichloroethene	ug/L			1 (J)		6		2 (J)		
Trichloroethene	ug/L			13		20		17	30	
Vinyl chloride	ug/L					0.8 (J)			2 (J)	
Xylene (total)	ug/L			0.3 (J)						

Well ID: WVA-AW-MW-38

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	88		230		90		28	48	
Chloride	mg/L	432		150		10		240	123	
Conductivity	mohm/cm							1.05		
Dissolved Oxygen	mg/L	1.16		5.23		0.00		4.21		
DOC	mg/L	1.06		1.23		1		280		
DOC Average Quads	mg/L								2.5	
Ferrous Iron	mg/L			0.09		0		0.00	0.05	
Methane	PPB	62								
Methane	ug/L							7.3	81 (D)	
Nitrate	mg/L	2.76		1.84		0.27		0.55	0.05	
Nitrite	mg/L	0.012		0.033		0.001		0.008	0.141	
pH		8.92		10.32		9.06		9.57		
Redox	mV	101		98		101		147		
Salinity								0.0		
Sulfate	mg/L	21		26		61		18.0	0	
Sulfide	mg/L					1				
TDS								0.7		
Temperature								12.15 (C)		
Turbidity	NTUs							34.8		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthene	ug/L								0.6 (J)	
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.5 (JB)				.4 (J)		
Butyl benzyl phthalate	ug/L								0.4 (J)	
Butylbenzylphthalate	ug/L			0.08 (J)						
Diethylphthalate	ug/L	0.2 (JB)		0.1 (JB)						
Di-n-butylphthalate	ug/L	0.8 (JB)		0.2 (JB)						
Di-n-octylphthalate	ug/L	0.3 (JB)		0.04 (J)						
Fluorene	ug/L								1 (J)	
Pyrene	ug/L								0.5 (J)	

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					4 (J)				
Methylene chloride	ug/L	0.6 (J)						.7 (JB)	0.3 (J)	

ell ID: WVA-AW-MW-41

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	189		1715		211		166	140	
Chloride	mg/L	188		255.6		257		240	194	
Conductivity	mohm/cm							1.26	1.31	
Dissolved Oxygen	mg/L	2.51		0.90		2.40		0.0	0.56	
DOC	mg/L			1						
DOC (Dup)	mg/L			1.41						
DOC Average Quads	mg/L								2.3	
Ferrous Iron	mg/L	0.04		0		0.02		0.0	0.16	
Methane	PPB	2.6								
Methane	ug/L					3.4		22		
Nitrate	mg/L	0.05		0.34		0		0.02	0.11	
Nitrite	mg/L	0.005		0.008		0		0.002	0	
pH		8.35		7.98		6.70		7.86	6.61	
Redox	mV	27		137		129		-35	16	
Salinity								0.1		
Sulfate	mg/L	53		73		52		44	56	
Sulfide	mg/L			1						
Sulfide (Dup)	mg/L			1						
TDS								0.8		
Temperature	C							12.85	14.71	
Turbidity	NTUs							35.4	0	

ETHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)		0.4 (J)		.9 (J)		
bis(2-Ethylhexyl)phthalate (Dup)	ug/L			1 (JB)						

ETHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					2 (J)				
cis-1,2-Dichloroethene	ug/L			2 (J)						
Methylene Chloride	ug/L			2 (J)		0.6 (J)			0.3 (J)	

Well ID: WVA-AW-MW-43

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	337		263		347		270	222	
Carbon Dioxide	ug/L				4900	5500 ( )				
Chloride	mg/L	948		877		130		618	73	
Conductivity	mohm/cm							3.03	1.66	
Dissolved Oxygen	mg/L	0.53		0.50		0.00		2.03	0.8	
DOC	mg/L			21.7		2.22		14.6		
DOC Average Quads	mg/L								9.8	
Ferrous Iron	mg/L	2.16		0.5		2.71		2.43	1.05	
Methane	ug/L				310	300 ( )		370	52	
Nitrate	mg/L	0.22		0		0.08		0.14	0.03	
Nitrite	mg/L	0.052		0		0.036		0.071	0.013	
pH		6.27		6.70		6.86		6.65	7.27	
Redox	mV	-65.2		-40		-54		-76	-163	
Salinity								0.1		
Sulfate	mg/L	40		76		4		31	41	
Sulfide	mg/L			1						
TDS								1.9		
Temperature	C							17.24	16.41	
Turbidity	NTUs							16.2	5.6	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
4-Chloro-3-methylphenol	ug/L			66		130		84	43	
bis(2-Ethylhexyl)phthalate	ug/L			6 (JB)				.4 (JB)		
Butylbenzylphthalate	ug/L			1 (JB)		0.6 (J)		.9 (J)		
Di-n-butylphthalate	ug/L			0.7 (JB)		0.4 (J)		.4 (JB)		
Di-n-octylphthalate	ug/L			0.1 (JB)						
Fluoranthene	ug/L			0.2 (J)				.2 (J)		
Naphthalene	ug/L							.5 (JB)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1 1-Dichloroethane	ug/L								3 (J)	
1,1-Dichloroethane	ug/L			6		8		5		
2-Butanone	ug/L					10				
Chloromethane	ug/L					4 (J)				
Methylene Chloride	ug/L			0.9 (JB)		3 (JB)		2 (J)	0.2 (J)	

ell ID: WVA-AW-MW-44

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	349		314		456		200	105	
Carbon Dioxide	PPB	420								
Carbon Dioxide	ug/L				6200	2400 ( )				
Chloride	mg/L	990		733		696		450	75	
Conductivity	mohm/cm							2.49	1.74	
Dissolved Oxygen	mg/L	0.86		1.20		0.00		2.4	0.79	
DOC	mg/L	13.5		60.8		16.8		14.4		
DOC Average Quads	mg/L								8.6	
Ferrous Iron	mg/L	2.2		0.87		1.09		0.54	0.37	
Methane	ug/L				190			220	7.2	
Methane	PPB	810								
Nitrate	mg/L	0.07		0.96		0.06		0.12	0.3	
Nitrite	mg/L	0.029		0		0.183			0.007	
pH		6.26		6.60		6.87		6.66	7.21	
Redox	mV	-45.2		9		-18		-21	-24	
Salinity								0.1		
Sulfate	mg/L	80		71		43		30	30	
Sulfide	mg/L			1						
TDS								1.5		
Temperature	C							15.05	16	
Turbidity	NTUs							11.3	8	

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
4-Chloro-3-methylphenol	ug/L	37		18		5		31	18 (M)	
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		6 (JB)		0.4 (JB)		.2 (JB)		
Butylbenzylphthalate	ug/L			0.9 (JB)						
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.9 (JB)		0.3 (JB)				.2 (JB)		
Di-n-octylphthalate	ug/L	0.3 (JB)		0.4 (JB)				.2 (J)		

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1 1-Dichloroethane	ug/L								2 (J)	
1,1-Dichloroethane	ug/L	5		3 (J)		3 (J)		2 (J)		
1,1-Dichloroethene	ug/L	0.5 (J)								
2-Butanone	ug/L	3 (J)				6 (J)				
Bromomethane	ug/L	0.5 (J)								
Carbon Disulfide	ug/L					4 (J)				
Methylene Chloride	ug/L			0.6 (JB)		3 (JB)				

Well ID: WVA-AW-MW-47

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	351		307		274		299	152	
Chloride	mg/L	241		172		43		71	34	
Conductivity	mohm/cm							1.51	1.53	
Dissolved Oxygen	mg/L	0.28		0.60		0.00		0.0	0.97	
DOC	mg/L			5.48		4.78		3.03		
DOC Average Quads	mg/L								4.6	
Ethene	PPB	14								
Ferrous Iron	mg/L	1.91		1.04		1.45		2.03	1.85	
Methane	PPB	3400 (D)								
Methane	ug/L				7400	670 ( )		2600 (D)	1800 (D)	
Nitrate	mg/L	0.25		0		0.09		0.09	0.01	
Nitrite	mg/L	0.49		0		0.034		0.019	0.203	
pH		6.72		7.10		7.50		7.22	7.73	
Redox	mV	-115.2		-89		-116		-128	-173	
Salinity								0.1		
Sulfate	mg/L	24		0		31		13	1	
Sulfide	mg/L			1				1		
TDS								1.0		
Temperature								14.29 (C)		
Temperature	C								13.84	
Turbidity	NTUs							34.5	999	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Anthracene	ug/L			0.02 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			0.7 (JB)		0.5 (JB)				
Butylbenzylphthalate	ug/L			0.3 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.08 (JB)						
Naphthalene	ug/L			0.06 (JB)						
Phenanthrene	ug/L			0.04 (JB)						
Pyrene	ug/L			0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Chloromethane	ug/L							1 (J)		
cis-1,2-Dichloroethene	ug/L			34		17		15		
Methylene chloride	ug/L					2 (JB)			1 (JB)	
trans-1 2-Dichloroethene	ug/L								0.5 (J)	
Vinyl chloride	ug/L			14		13		10	18	

ell ID: WVA-AW-MW-51

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	313		310		323		134	259	
Chloride	mg/L	270		260		310		270	51	
Conductivity	mohm/cm							1.77	1.9	
Dissolved Oxygen	mg/L	3.50		0.55		2.07		1.59	0.59	
DOC	mg/L	3.55		13.2		8.54		5.78		
DOC Average Quads	mg/L								20	
Ethane	PPB	78								
Ethane	ug/L			32.6		39		27 (D)	82 (D)	
Ethene	ug/L			180		13		12	1200 (E)	
Ethene	PPB	37								
Ferrous Iron	mg/L	0.02		0.04		0.12		0.06	0.03	
Methane	PPB	2200 (D)								
Methane	ug/L			1300		2400 (D)		3800 (E)	2400 (D)	
Nitrate	mg/L	0.21		0.38		0.1		0.017	0.04	
Nitrite	mg/L	0.017		0.046		0.112			0.081	
pH		9.13		9.54		9.35		9.13	9.02	
Redox	mV	78		40		18		-17	-140	
Salinity								0.1		
Sulfate	mg/L	5		4		2		3	8	
Sulfide	mg/L					1			0.5 (B)	
TDS								1.1		
Temperature	C							15.63	14.19	
Turbidity	NTUs							0.7	23	

ETHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Anthracene	ug/L	10								
bis(2-Ethylhexyl)phthalate	ug/L	0.4 (JB)		14 (B)		3 (JB)		.7 (JB)		
Diethylphthalate	ug/L	0.2 (JB)		0.3 (JB)						
Di-n-butylphthalate	ug/L	0.7 (JB)		0.3 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)								
Naphthalene	ug/L	0.2 (J)		0.06 (J)						
Phenol	ug/L					0.9 (J)		.8 (J)	0.6 (J)	

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzene	ug/L							47 (J)		
cis-1,2-Dichloroethene	ug/L	16,000		11000		11000		12000		
Methylene Chloride	ug/L	180 (J)		1400		260 (J)		310 (J)		
Tetrachloroethene	ug/L	28,000		27000		12000		13000	42000 (B)	
Trichloroethene	ug/L	2,300		1900		7200		8300	15000	
Vinyl chloride	ug/L	280 (J)		220 (J)		280		350	8300	

Well ID: WVA-AW-MW-52

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	NR		10000		1800		1693	1350	
Chloride	mg/L	28		20.8		38		45	40	
Conductivity	mohm/cm							8.11	8.75	
Dissolved Oxygen	mg/L	5.41		4.68		1.29		0.73	2.34	
DOC	mg/L			5.53		4.38		4.55		
DOC Average Quads	mg/L								2.6	
Ethane	ug/L								1300	
Ethene	ug/L								1300	
Ferrous Iron	mg/L	2.16		0.58		3.11		1.17	3.3	
Methane	PPB	2000 (D)								
Methane	ug/L				4200	1500 (D)		2600 (E)	1400	
Nitrate	mg/L	0.01		0.15		0.04		0.23	0.09	
Nitrite	mg/L	0.007		0.178		0.044		1.64	0.397	
pH		12.43		13.19		13.16		12.94	14.09	
Redox	mV	52		-112		-97		-117	-156	
Salinity								0.4		
Sulfate	mg/L			14		5		1.0	0	
Sulfide	mg/L			1		1				
TDS								5.1		
Temperature	C							13.99	15.89	
Turbidity	NTUs							40.6	12.3	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.5 (JB)				.7 (JB)		
Butylbenzylphthalate	ug/L			0.08 (JB)				.1 (J)		
Diethylphthalate	ug/L			0.05 (JB)				.09 (J)		
Di-n-butylphthalate	ug/L			0.08 (JB)				.2 (JB)		
Di-n-octylphthalate	ug/L			0.06 (JB)						
Naphthalene	ug/L			0.08 (JB)						
Phenol	ug/L			0.5 (JB)		0.4 (J)		.3 (J)	0.5 (J)	

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone (MEK)	ug/L								5 (J)	
Carbon disulfide	ug/L								0.4 (J)	
Chlorobenzene	ug/L								0.5 (J)	
Chloromethane	ug/L							2 (J)		
cis-1,2-Dichloroethene	ug/L			2 (J)		4 (J)		2 (J)		
Methylene Chloride	ug/L			1 (JB)		2 (JB)		2 (JB)	0.7 (J)	
Tetrachloroethene	ug/L			1 (J)		3 (J)		5	5 (J)	
Toluene	ug/L			1 (JB)		0.8 (J)		.8 (J)	0.7 (J)	
Trichloroethene	ug/L			2 (J)		3 (J)		3 (J)	3 (J)	

ell ID: WVA-AW-MW-58

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			1720		295		320	0	
Chloride	mg/L			1239.2		1220		744	45	
Conductivity	mohm/cm							3.32	0.43	
Dissolved Oxygen	mg/L	0.83		0.38		1.87		0.0	4.79	
DOC	mg/L			5.1		3.4				
DOC Average Quads	mg/L								2	
Ferrous Iron	mg/L			0.03		0.7		0.0	0.01	
Methane	ug/L			542				2700 (E)		
Nitrate	mg/L			0.32		0.13		0.0	0.56	
Nitrite	mg/L			0.012		0.042		0.0	0.009	
pH		7.12		7.78		7.71		7.44	7.3	
Redox	mV	-145		-113		-169		-140	98	
Salinity								0.2		
Sulfate	mg/L			80		11		4.0	4	
Sulfide	mg/L					1				
TDS								2.1		
Temperature	C							14.62	14	
Turbidity	NTUs							3.7	0	

ETHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (J)				.3 (JB)		
Diethylphthalate	ug/L			0.2 (J)						
Di-n-butylphthalate	ug/L			0.2 (JB)						

ETHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Chloroform	ug/L								0.3 (J)	
cis-1,2-Dichloroethene	ug/L					0.4 (J)				
Methylene Chloride	ug/L			3 (JB)		0.4 (J)		.5 (J)		
Tetrachloroethene	ug/L								0.4 (J)	

Well ID: WVA-AW-MW-59

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	140		2250		142		111.0		
Chloride	mg/L	464		355.2		150		72		
Conductivity	mohm/cm							0.765		
Dissolved Oxygen	mg/L	0.76		0.66		1.94		1.11		
DOC	mg/L	1.10		2.04		5.51		2.52		
Ethane	ug/L			14.5						
Ethene	ug/L			9.4						
Ferrous Iron	mg/L	0.01		0.06		0.16		0.04		
Methane	PPB	2700								
Methane	ug/L			5250 (D)		58		100		
Nitrate	mg/L	0.2		0.88		1.08		0.128		
Nitrite	mg/L	0.013		0.057		0.333				
pH		10.15		10.65		10.72		10.0		
Redox	mV	-78		-183		27		112		
Salinity								0.0		
Sulfate	mg/L			9		22		26		
Sulfide	mg/L					1				
TDS								0.49		
Temperature	C							13.67		
Turbidity	NTUs							1.3		

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)		1 (JB)		2 (JB)				
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	0.6 (JB)								
Phenol	ug/L			0.2 (J)						

ell ID: WVA-AW-MW-59

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,1,2,2-Tetrachloroethane	ug/L			3 (J)						
1,1-Dichloroethene	ug/L	1 (J)		2 (J)						
2-Butanone	ug/L			12 (J)						
4-Methyl-2-Pentanone	ug/L			8 (J)						
Benzene	ug/L			1 (J)						
Bromodichloromethane	ug/L					2 (J)		2 (J)	5 (J)	
Carbon Disulfide	ug/L	8 (J)		12 (J)						
Chlorobenzene	ug/L			1 (J)						
Chloroform	ug/L	1 (J)		3 (J)		23		14	18	
cis-1,2-Dichloroethene	ug/L	700		490		210		150		
Dibromochloromethane	ug/L								1 (J)	
Ethylbenzene	ug/L			1 (J)						
Methylene chloride	ug/L	3 (J)		16 (J)		4 (J)		.7 (J)	0.8 (JB)	
Tetrachloroethene	ug/L	2 (JB)								
Toluene	ug/L			2 (J)						
trans-1,2-Dichloroethene	ug/L	3 (J)		3 (J)		1 (J)		1 (J)		
Trichloroethene	ug/L			2 (J)		0.5 (J)				
Vinyl Chloride	ug/L	37		31		6		5		
Xylene (total)	ug/L			2 (J)						

Well ID: WVA-AW-MW-61

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L					1100				
Chloride	mg/L					80				
Dissolved Oxygen	mg/L					6.57				
DOC	mg/L					36.5				
DOC (Dup)	mg/L					28.4				
Ethene	ug/L					10 ( )				
Ethene (Dup)	ug/L					7.8				
Ferrous Iron	mg/L					0				
Methane	ug/L					3400 (D)				
Methane (Dup)	ug/L					2200 (D)				
Nitrate	mg/L					0.09				
Nitrite	mg/L					0.043				
pH						12.90				
Redox	mV					-95				
Sulfate	mg/L					0				
Sulfide	mg/L					1				
Sulfide (Dup)	mg/L					1				

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L					8 (JB)				
bis(2-Ethylhexyl)phthalate (Dup)	ug/L					8 (JB)				
Phenol	ug/L					3				
Phenol (Dup)	ug/L					3				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Carbon Disulfide	ug/L					2 (J)				
Carbon Disulfide (Dup)	ug/L					3 (J)				
Chloroform	ug/L					0.3 (J)				
Chloroform (Dup)	ug/L					0.2 (J)				
cis-1,2-Dichloroethene	ug/L					82				
cis-1,2-Dichloroethene (Dup)	ug/L					78				
Methylene Chloride	ug/L					0.8 (JB)				
Methylene Chloride (Dup)	ug/L					0.7 (JB)				
Tetrachloroethene	ug/L					4 (J)				
Tetrachloroethene (Dup)	ug/L					3 (J)				
Trichloroethene	ug/L					1 (J)				
Trichloroethene (Dup)	ug/L					0.9 (J)				
Vinyl Chloride	ug/L					0.4 (J)				
Vinyl Chloride (BS)	ug/L			2.1 (J)						

ell ID: WVA-AW-MW-64

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	155		1060		81		49	0	
Chloride	mg/L	304		190.8		130		134	204	
Conductivity	mohm/cm							0.667	0.73	
Dissolved Oxygen	mg/L	0.63		2.76		0.70		3.99	4.74	
DOC	mg/L			8.71		7.78		3.12		
DOC Average Quads	mg/L								3.6	
Ethane	PPB	12								
Ethane	ug/L				12	8.5		6.6		
Ethene	PPB	18								
Ethene	ug/L				40	8.3		7.2		
Ferrous Iron	mg/L	0.02		0		0.19		0.0	0.02	
Methane	PPB	3200 (D)								
Methane	ug/L				1500	870		800	250	
Nitrate	mg/L	0.05		0.03		0		0.06	0.15	
Nitrite	mg/L	0.013		0.015		0.047		0.032	0.022	
pH		8.80		11.00		10.65		11.23	11.63	
Redox	mV	67		-8		24		-14	-43	
Salinity								0.0		
Sulfate	mg/L	18		12		11		11.0	15	
Sulfide	mg/L			1		1				
TDS								0.43		
Temperature	C							12.94	15.23	
Turbidity	NTUs							42.1	4.1	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			6 (JB)				.3 (J)		
Butylbenzylphthalate	ug/L			0.4 (JB)						
Diethylphthalate	ug/L			0.07 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.2 (JB)						
Naphthalene	ug/L			0.08 (JB)						
Phenol	ug/L			0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Chloroform	ug/L			22 (JB)		32 (J)		16 (J)		
Chloromethane	ug/L							42 (J)		
cis-1,2-Dichloroethene	ug/L			2300		1000		1000		
Methylene Chloride	ug/L			170 (JB)		40 (J)		46 (JB)		
Tetrachloroethene	ug/L			9100		2600		2800	7300	
trans-1,2-Dichloroethene	ug/L			80 (J)		35 (J)				
Trichloroethene	ug/L			2500		840		900	1800	
Vinyl chloride	ug/L			270		120		140	430	

Well ID: WVA-AW-MW-BLD-110

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	560		534		576		481	548	
Chloride	mg/L	10		33		6		1	20	
Conductivity	mohm/cm							1.28	1.37	
Dissolved Oxygen	mg/L	0.68		0.50		0.00		0.0	4.83	
DOC	mg/L	45.3		48.6		48.9		268		
DOC Average Quads	mg/L								56	
DOC Average Quads (Dup)	mg/L								48	
Ferrous Iron	mg/L	1.4		0.12		0.67		0.88	0.57	
Methane	PPB	14000 (D)								
Methane	ug/L			1140		1200		2200 (E)	570 (E)	
Methane (Dup)	ug/L								540 (E)	
Nitrate	mg/L	0.02		0.44		0.03		0.01	0	
Nitrite	mg/L	0.012		0.03		0		0.017	0.002	
pH		7.09		7.10		7.34		7.13	7.6	
Redox	mV	-106		-80		-69		-104	-114	
Salinity								0.1		
Sulfate	mg/L			80		0		0.0	0	
TDS								0.8		
Temperature								20.38 (C)		
Temperature	C								20.83	
Turbidity	NTUs							134	36.8	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthene	ug/L					0.3 (J)				
bis(2-Ethylhexyl)phthalate	ug/L					0.5 (JB)		.4 (J)		
Di-n-butylphthalate	ug/L	0.8 (JB)								
Fluorene	ug/L	0.6 (J)				0.5 (J)				
Naphthalene	ug/L	0.3 (J)				0.2 (J)				
Pyrene	ug/L					0.2 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	.8 (J)								
Benzene	ug/L			0.3 (J)		0.3 (J)				
Chloromethane	ug/L					0.5 (J)				
Methylene Chloride	ug/L			0.6 (JB)		1 (JB)		.9 (JB)		

ell ID: WVA-B35-PW-1

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	306		2688		306		250	289	
Chloride	mg/L	422		6.58		488		439	83	
Conductivity	mohm/cm							2.13	1.84	
Dissolved Oxygen	mg/L	0.66		0.40		0.00		0.0	0.66	
DOC	mg/L	8.81		9.72		17.8		14.8		
DOC Average Quads	mg/L								6.6	
Ferrous Iron	mg/L	0.08		0.06		0		0.05	0	
Methane	PPB	1600 (D)								
Methane	ug/L			1050		770 (D)		870 (D)	590 (E)	
Nitrate	mg/L	0.42		0.62		0.04		0.1	0.05	
Nitrite	mg/L	0.027		0.02		0.024		0.031	0.013	
pH		7.70		7.70		7.89		7.63	7.96	
Redox	mV	-181		-230		-269		-281	-301	
Salinity								0.1		
Sulfate	mg/L	2		2		0		0.0	2	
Sulfide	mg/L			1.6		1			2.2	
TDS								1.4		
Temperature	C							15.8	17.43	
Turbidity	NTUs							34.4	40.7	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthene	ug/L							.3 (J)		
bis(2-Ethylhexyl)phthalate	ug/L			0.2 (JB)		0.5 (J)		.4 (J)		
Chrysene	ug/L	0.5 (J)								
Diethylphthalate	ug/L	0.1 (JB)				0.3 (J)				
Di-n-butylphthalate	ug/L	0.6 (JB)				0.1 (J)		.2 (J)		
Fluoranthene	ug/L	0.1 (J)		0.1 (J)						
Pyrene	ug/L	0.3 (J)		0.2 (J)		0.09 (J)				

ETHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (JB)				5 (J)				
Carbon Disulfide	ug/L	.6								
Carbon Tetrachloride	ug/L	5								
Methylene Chloride	ug/L	0.9 (J)		2 (J)						

Well ID: WVA-SA-GTI-1

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	250		100				171		
Chloride	mg/L	18		190				144		
Conductivity	mohm/cm							0.664		
Dissolved Oxygen	mg/L	1.00		10.4		3.77		5.69		
DOC	mg/L	4.30		1				2.19		
Ethene	ug/L					3.0 ( )				
Ferrous Iron	mg/L	2.21		0				0.27		
Methane	PPB	610								
Nitrate	mg/L	0		0.66				0.0		
Nitrite	mg/L			0				0.006		
pH		7.17		7.33		7.23		7.49		
Redox	mV	105		370		141		64		
Salinity								0.42		
Sulfate	mg/L	4		46				21		
Sulfide	mg/L			1				1		
TDS								0.0		
Temperature	C							14.89		
Turbidity	NTUs							999		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzo(a)anthracene	ug/L			0.4 (J)		0.2 (J)				
Benzo(a)pyrene	ug/L			0.2 (J)		0.2 (J)				
Benzo(b)fluoranthene	ug/L			0.3 (J)		0.3 (J)				
Benzo(k)fluoranthene	ug/L			0.3 (J)		0.3 (J)				
bis(2-Ethylhexyl)phthalate	ug/L	0.8 (JB)		2 (JB)		0.9 (J)				
Butylbenzylphthalate	ug/L			0.3 (J)		0.3 (J)				
Chrysene	ug/L			0.3 (J)		0.3 (J)				
Diethylphthalate	ug/L					0.4 (J)				
Di-n-butylphthalate	ug/L	0.8 (JB)		0.2 (J)		0.4 (J)				
Di-n-octylphthalate	ug/L	0.3 (JB)		0.4 (J)		0.2 (JB)				
Fluoranthene	ug/L			0.7 (J)		0.4 (J)				
Phenanthrene	ug/L			0.4 (J)		0.2 (J)				
Pyrene	ug/L			0.6 (J)		0.4 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Methylene Chloride	ug/L			2 (J)		0.5 (JB)		1 (JB)		

ell ID: WVA-SA-GTI-3

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	330		2860				261	270	
Carbon Dioxide	PPB	2600								
Chloride	mg/L	64		109.2				72.0	82	
Conductivity	mohm/cm							1.07		
Dissolved Oxygen	mg/L	0.92		6.57		7.77		7.00		
DOC	mg/L	2.68		5.3		6.47		8.55		
DOC Average Quads	mg/L								4.6	
Ferrous Iron	mg/L	0.02		0				0.01	0	
Methane	PPB	38								
Methane	ug/L			3.4		3.2		3.1		
Nitrate	mg/L	0.05		0.06				0.05	0.04	
Nitrite	mg/L	0.023		0.093				0.024	0.015	
pH		7.08		7.64		7.08		7.47		
Redox	mV	64		184		132		45		
Salinity								0.0		
Sulfate	mg/L	41		35				18.0	32	
Sulfide	mg/L			1				1.2		
TDS								0.70		
Temperature	C							12.6		
Turbidity	NTUs							59.2		

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	1 (JB)		1 (JB)		0.6 (J)				
Di-n-butylphthalate	ug/L	0.7 (JB)								
Di-n-octylphthalate	ug/L	0.3 (JB)								

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	1 (JB)								
Carbon Disulfide	ug/L	0.5 (J)								
Chloromethane	ug/L	2 (J)								
Methylene Chloride	ug/L	2 (J)		3 (J)		1 (JB)				
Xylene (total)	ug/L	0.9 (J)								

Well ID: WVA-SA-MW-19

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			333					302	
Carbon Dioxide	PPB	7500								
Carbon Dioxide	ug/L			2900						
Chloride	mg/L			21					12	
Conductivity	mohm/cm							0.78	0.705	
Dissolved Oxygen	mg/L	1.05		0.90		0.64		0.0	1.54	
DOC	mg/L			9.01		7.21		1.53		
DOC Average Quads	mg/L								7.8	
Ferrous Iron	mg/L			0.03					0	
Methane	ug/L					4700 (D)				
Nitrate	mg/L			0.18					0.05	
Nitrite	mg/L			0					0.007	
pH		6.38		6.90		6.99		6.73	6.41	
Redox	mV	-50.5		60		-34		285	-58	
Salinity								0.0		
Sulfate	mg/L			42					19	
Sulfide	mg/L			1				1		
TDS								0.48		
Temperature	C							11.99	11.83	
Turbidity	NTUs							33.2	12.6	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.9 (JB)		2 (JB)						
Di-n-butylphthalate	ug/L	0.4 (JB)		0.4 (JB)						
Di-n-octylphthalate	ug/L	0.2 (JB)								

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	3 (JB)				7 (J)				
Methylene Chloride	ug/L	0.9 (J)		4 (J)		3 (J)				

Well ID: WVA-SA-MW-20

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			119				198	111	
Chloride	mg/L			7				16.0	7	
Conductivity	mohm/cm							0.388		
Dissolved Oxygen	mg/L	1.05		10.4		1.35		2.25		
DOC	mg/L			1		3.19		4.24		
DOC Average Quads	mg/L								1.8	
Ferrous Iron	mg/L			0.01				0.02	0	
Methane	PPB	6.6								
Methane	ug/L					2.3				
Nitrate	mg/L			0				0.08	0.16	
Nitrite	mg/L			0				0.0	0	
pH		6.48		7.60		7.47		7.56		
Redox	mV	69.4		145		136		229		
Salinity								0.0		
Sulfate	mg/L			24				48.0	43	
Sulfide	mg/L			1				1		
TDS								0.25		
Temperature	C							15.47		
Turbidity	NTUs							62.2		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.5 (JB)		0.6 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L	0.4 (JB)		0.09 (JB)						
Di-n-butylphthalate	ug/L	1 (JB)		0.1 (JB)						
Di-n-octylphthalate	ug/L	0.1 (J)		0.05 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					2 (J)				
Chlorobenzene	ug/L	0.8 (J)								
cis-1,2-Dichloroethene	ug/L	12				3 (J)		4 (J)		
Ethylbenzene	ug/L	0.1 (J)								
Methylene Chloride	ug/L			0.3 (J)		0.5 (J)				
Vinyl Chloride	ug/L	1 (J)								
Xylene (total)	ug/L	0.5 (J)								

Well ID: WVA-SA-MW-23

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	94						130	68	
Chloride	mg/L	296						250	381	
Conductivity	mohm/cm							1.16	1.48	
Dissolved Oxygen	mg/L	0.47				2.83		0.0	0.62	
DOC	mg/L			1				1		
DOC Average Quads	mg/L								0.96 (B)	
Ferrous Iron	mg/L	0.57						0.02	0.4	
Methane	ug/L			7.2					26	
Methane	PPB	28								
Nitrate	mg/L	0.06						2.43	0.08	
Nitrite	mg/L	0.013						0.028	0.008	
pH		6.45				7.03		7.87	6.68	
Redox	mV	16.8				11		263	-48	
Salinity								0.1		
Sulfate	mg/L	29						23	29	
Sulfide	mg/L			1				1		
TDS								0.7		
Temperature	C							10.39	11.6	
Turbidity	NTUs							4.7	31.3	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.8 (JB)		1 (JB)						
Butylbenzylphthalate	ug/L			0.4 (JB)						
Diethylphthalate	ug/L	0.2 (JB)		0.1 (JB)						
Di-n-butylphthalate	ug/L	1 (JB)		0.4 (JB)						
Di-n-octylphthalate	ug/L	0.2 (JB)		0.1 (JB)						
Naphthalene	ug/L			0.2 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					4 (J)				
Carbon Disulfide	ug/L			0.4 (J)						
Methylene chloride	ug/L			9		0.5 (J)			1 (JB)	

Well ID: WVA-SA-MW-24

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			4484				59	82	
Carbon Dioxide	PPB	2400								
Chloride	mg/L			8				1.0	39	
Conductivity	mohm/cm							0.296		
Dissolved Oxygen	mg/L	1.740		17.29		3.21		7.04		
DOC	mg/L			2.09				1.94		
DOC Average Quads	mg/L								2.4	
Ferrous Iron	mg/L			0.15				0.10	0	
Methane	PPB	68								
Nitrate	mg/L			0				0.07	55	
Nitrite	mg/L			0				0.008	0.017	
pH		6.01		7.61		7.15		6.96		
Redox	mV	74.2		117		113		89		
Salinity								0.0		
Sulfate	mg/L			6				22.0	32	
Sulfide	mg/L			1						
TDS								0.19		
Temperature	C							12.15		
Turbidity	NTUs							90		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)				.3 (JB)		
Di-n-butylphthalate	ug/L	1 (JB)								

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					5 (J)				
Methylene Chloride	ug/L					0.6 (J)				

Well ID: WVA-SA-MW-26

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	265		108				190	212	
Carbon Dioxide	PPB	2200								
Chloride	mg/L	508		420				425	450	
Conductivity	mohm/cm							1.91	2.39	
Dissolved Oxygen	mg/L	0.93		0.40		9.33		0.0	0.39	
DOC	mg/L	2.62		1		4.13		2.68		
DOC Average Quads	mg/L								2.9	
Ferrous Iron	mg/L	1.76		2.57				3.30	2.24	
Methane	PPB	440								
Methane	ug/L			145				2.4		
Nitrate	mg/L	>80		0				0.0	0	
Nitrite	mg/L			0				0.027	0.003	
pH		6.90		6.90		7.11		7.01	6.75	
Redox	mV	-121		-62		-106		-110	-126	
Salinity								0.1		
Sulfate	mg/L	26		80				80	80	
Sulfide	mg/L			1				1.1		
TDS								1.2		
Temperature	C							16.51	12.17	
Turbidity	NTUs							468	34.1	

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Benzo(a)pyrene	ug/L			0.04 (J)						
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.4 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L	0.2 (JB)		0.08 (JB)						
Di-n-butylphthalate	ug/L	1 (JB)		0.1 (JB)						
Di-n-octylphthalate	ug/L	0.9 (JB)		0.05 (JB)						
Fluoranthene	ug/L	0.1 (J)		0.1 (J)						
Pyrene	ug/L	0.1 (J)		0.09 (J)						

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L					2 (J)				
Methylene Chloride	ug/L					0.9 (J)				

ell ID: WVA-SA-MW-27

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	300		124				127	170	
Carbon Dioxide	PPB	5300								
Chloride	mg/L	374		216				373	405	
Conductivity	mohm/cm							1.59	2.09	
Dissolved Oxygen	mg/L	0.83		6.00		5.11		2.88	5.8	
DOC	mg/L	9.34		5.36		2.22		4.58		
DOC Average Quads	mg/L								2.3	
Ferrous Iron	mg/L	3.3		0				1.61	0.03	
Methane	PPB	2900 (D)								
Methane	ug/L					16				
Nitrate	mg/L	>80		0.31				0.29	1.55	
Nitrite	mg/L	>80		0.003				0.002	0	
pH		6.66		7.50		7.27		6.8	6.87	
Redox	mV	105		160		-86		42	69	
Salinity								0.1		
Sulfate	mg/L	26		30				25.0	80	
Sulfide	mg/L			1						
TDS								1.0		
Temperature	C							16.29	14.22	
Turbidity	NTUs							1.9	19.1	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.2 (JB)		0.4 (JB)		0.8 (J)		.4 (JB)		
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L	0.2 (JB)				0.8 (J)				
Di-n-butylphthalate	ug/L	1 (JB)		0.2 (JB)		0.2 (J)				
Di-n-octylphthalate	ug/L	0.2 (J)		0.05 (JB)				.1 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Carbon Disulfide	ug/L			0.3 (J)						
Methylene Chloride	ug/L			12		1 (J)		1 (J)		

Well ID: WVA-SA-MW-28

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	20		79				49.0	11	
Carbon Dioxide	ug/L			1600						
Chloride	mg/L	475		526				526	370	
Conductivity	mohm/cm							2.11	1.77	
Dissolved Oxygen	mg/L	1.37		1.00		3.02		1.38	0.6	
DOC	mg/L			1.34				1.66		
DOC Average Quads	mg/L								1.3	
Ferrous Iron	mg/L	0.04		0				0.00	0.04	
Methane	PPB	2000 (D)								
Methane	ug/L			1330		1700		1500	83	
Nitrate	mg/L	0.23		2.43				0.10	2.43	
Nitrite	mg/L	0.184		0.375				0.031	0.037	
pH		6.75		8.90		11.20		8.85	7.6	
Redox	mV	-5.0		91		30		6	-48	
Salinity								0.1		
Sulfate	mg/L			3				1.0	1	
Sulfide	mg/L			1				1		
TDS								1.3		
Temperature	C							13.14	12.15	
Turbidity	NTUs							0.0	14.9	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (JB)		0.3 (J)				
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	1 (JB)		0.3 (JB)						
Phenol	ug/L					0.2 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1,1-Trichloroethane	ug/L	0.2 (J)								
1,1,2,2-Tetrachloroethane	ug/L	0.6 (J)								
2-Butanone	ug/L	1 (JB)				3 (J)				
Bromoform	ug/L	0.1 (J)								
Carbon Disulfide	ug/L	0.3 (J)				3 (J)				
Ethylbenzene	ug/L	0.2 (J)								
Methylene Chloride	ug/L			4 (J)		2 (J)				
Tetrachloroethene	ug/L	0.3 (J)								
Toluene	ug/L	0.3 (J)								
Xylene (total)	ug/L	0.8 (J)								

ell ID: WVA-SA-MW-29

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	274		1230				67	85	
Chloride	mg/L	19		10.8				5.0	18	
Conductivity	mohm/cm							0.278	0.214	
Dissolved Oxygen	mg/L	0.60				4.95		1.85	1.22	
DOC	mg/L	21.8		7.4		7.85		8.2		
DOC Average Quads	mg/L								4.3	
Ferrous Iron	mg/L	3.1		0.48				0.72	0.29	
Methane	PPB	4000 (D)								
Methane	ug/L			721		650		800		
Nitrate	mg/L	>80		0.15				0.0	0	
Nitrite	mg/L	>80		0.001				0.009	0.004	
pH		6.80				6.97		6.97	7.01	
Redox	mV	-127				-88		-63	-29	
Salinity								0.0		
Sulfate	mg/L	7		80				4.0	23	
Sulfide	mg/L			1				1		
TDS								0.18		
Temperature	C							16.37	13.22	
Turbidity	NTUs								30.5	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthene	ug/L	0.5 (J)								
Anthracene	ug/L	0.3 (J)								
bis(2-Ethylhexyl)phthalate	ug/L	1 (JB)		2 (JB)		0.5 (J)				
Diethylphthalate	ug/L	0.2 (J)								
Di-n-butylphthalate	ug/L	0.6 (JB)				0.2 (J)				
Fluoranthene	ug/L	0.3 (J)								
Fluorene	ug/L	0.6 (J)								
Phenanthrene	ug/L	0.2 (J)								
Pyrene	ug/L	0.3 (J)								

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					3 (J)				
Carbon Disulfide	ug/L					0.7 (J)				
cis-1,2-Dichloroethene	ug/L	4 (J)								
Methylene Chloride	ug/L			3 (J)		2 (J)				
Toluene	ug/L	0.2 (J)								
Vinyl Chloride	ug/L	7								

Well ID: WVA-SA-MW-32

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L			187				198	93	
Chloride	mg/L			121				93	278	
Conductivity	mohm/cm							0.93	1.36	
Dissolved Oxygen	mg/L			0.70		6.24		1.89	5.17	
DOC	mg/L			7.74		16.7		2.8		
DOC (Dup)	mg/L			8.67						
DOC Average Quads	mg/L								4	
Ethane	ug/L			19.5		5.6 ( )		34		
Ethane (Dup)	ug/L			42.7						
Ethene	ug/L			105		5.9 ( )		57		
Ethene (Dup)	ug/L			135 (D)						
Ferrous Iron	mg/L			1.36				1.37	0	
Methane	ug/L			5880 (D)		220		2400 (E)		
Methane (Dup)	ug/L			6540 (E)						
Nitrate	mg/L			0.42				0.0	0.24	
Nitrite	mg/L			0.016				0.0	0.005	
pH				7.00		6.97		6.74	6.52	
Redox	mV			-111		-90		-18	26	
Salinity								0.0		
Sulfate	mg/L			4				66	34	
Sulfide	mg/L			1.5				1.2		
Sulfide (Dup)	mg/L			1.5						
TDS								0.6		
Temperature	C							15.24	12.92	
Turbidity	NTUs							50.2	0	

ell ID: WVA-SA-MW-32

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,2,4-Trichlorobenzene	ug/L	0.6 (J)		0.1 (J)						
1,2-Dichlorobenzene	ug/L	0.8 (J)		0.3 (J)						
1,2-Dichlorobenzene (Dup)	ug/L			0.3 (J)						
1,4-Dichlorobenzene	ug/L	1 (J)		0.2 (J)		0.3 (J)				
1,4-Dichlorobenzene (Dup)	ug/L			0.2 (J)						
2,4-Dimethylphenol	ug/L	0.8 (J)		0.2 (J)						
2-Methylnaphthalene	ug/L	3 (J)		0.5 (J)						
2-Methylnaphthalene (Dup)	ug/L			0.6 (J)						
Acenaphthene	ug/L	5 (J)		1 (J)		0.8 (J)				
Acenaphthene (Dup)	ug/L			0.8 (J)						
Anthracene	ug/L	2 (J)		0.3 (J)						
Anthracene (Dup)	ug/L			0.3 (J)						
Benzo(a)anthracene	ug/L	2		0.2 (J)						
Benzo(a)anthracene (Dup)	ug/L			0.3 (J)						
Benzo(a)pyrene (Dup)	ug/L			0.3 (J)						
Benzo(b)fluoranthene (Dup)	ug/L			0.3 (J)						
Benzo(g,h,i)perylene	ug/L			0.1 (J)						
Benzo(g,h,i)perylene (Dup)	ug/L			0.2 (J)						
Benzo(k)fluoranthene (Dup)	ug/L			0.2 (J)						
bis(2-Ethylhexyl)phthalate	ug/L	5 (JB)		0.5 (JB)		0.6 (J)				
bis(2-Ethylhexyl)phthalate (Dup)	ug/L			0.6 (JB)						
Chrysene	ug/L	3		0.3 (J)						
Chrysene (Dup)	ug/L			0.4 (J)						
Di-n-butylphthalate	ug/L	0.6 (JB)		0.1 (J)		0.2 (J)				
Di-n-butylphthalate (Dup)	ug/L			0.09 (J)						
Di-n-octylphthalate (Dup)	ug/L			0.1 (JB)						
Fluoranthene	ug/L	8 (J)		0.6 (J)						
Fluoranthene (Dup)	ug/L			0.8 (J)						
Fluorene	ug/L	7 (J)		1 (J)						
Fluorene (Dup)	ug/L			0.8 (J)						
Indeno(1,2,3-cd)pyrene	ug/L			0.09 (J)						
Indeno(1,2,3-cd)pyrene (Dup)	ug/L			0.1 (J)						
Naphthalene	ug/L	19		4 (J)						
Naphthalene (Dup)	ug/L			4 (J)						
Phenanthrene	ug/L	12		0.5 (J)						
Phenanthrene (Dup)	ug/L			0.5 (J)						
Phenol	ug/L			0.06 (J)						
Phenol (Dup)	ug/L			0.08 (J)						
Pyrene	ug/L	25		1 (J)						
Pyrene (Dup)	ug/L			1 (J)						

Well ID: WVA-SA-MW-32

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1,1,2,2-Tetrachloroethane	ug/L	12 (J)								
1,1,2-Trichloroethane	ug/L	4 (J)								
1,1-Dichloroethene	ug/L					0.7 (J)				
2-Butanone	ug/L					4 (J)				
4-Methyl-2-Pentanone	ug/L	52 (JB)								
Benzene	ug/L	8		0.8 (J)		3		2		
Carbon disulfide	ug/L								0.8 (J)	
Chlorobenzene	ug/L					3 (J)		2 (J)		
Chloroform (Dup)	ug/L			6 (JB)						
cis-1,2-Dichloroethene	ug/L	530		290		100		77		
cis-1,2-Dichloroethene (Dup)	ug/L			890						
Ethylbenzene	ug/L	6 (J)								
Methylene chloride	ug/L	3 (J)		2 (JB)		0.5 (J)			0.2 (JB)	
Methylene Chloride (Dup)	ug/L			8 (JB)						
Tetrachloroethene	ug/L					180		28	0.8 (J)	
Toluene	ug/L	6 (J)								
trans-1,2-Dichloroethene	ug/L	3 (J)				2 (J)		.5 (J)		
Trichloroethene	ug/L	7 (J)		1 (J)		54		24		
Vinyl Chloride	ug/L	300		110		72		41		
Vinyl Chloride (Dup)	ug/L			330						
Xylene (total)	ug/L	34								

Well ID: WVA-SA-MW-33

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			182					139	
Chloride	mg/L			14.8					30	
Dissolved Oxygen	mg/L			5.92						
DOC Average Quads	mg/L								4.9	
Ferrous Iron	mg/L			0.11					0.29	
Methane	ug/L			5.3						
Nitrate	mg/L			0.02						
Nitrite	mg/L			0.014					0	
pH				7.22						
Redox	mV			123						
Sulfate	mg/L			25					17	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.1 (J)						
Di-n-octylphthalate	ug/L			0.1 (JB)						
Naphthalene	ug/L			0.07 (J)						
Phenol	ug/L			0.09 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Methylene chloride	ug/L								0.3 (J)	

Well ID: WVA-SA-MW-34

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	306		286				240	215	
Carbon Dioxide	PPB	4000								
Chloride	mg/L	170		264.8				138	165	
Conductivity	mohm/cm							1.10	1.51	
Dissolved Oxygen	mg/L	0.77		5.80		0.00		0.51	0.5	
DOC	mg/L	6.19		4.24		3.51		6.23		
DOC Average Quads	mg/L								1.6	
Ferrous Iron	mg/L	0.13		0.03				0.02	0.09	
Methane	PPB	5200 (D)								
Methane	ug/L			5470				2300 (D)	1000 (D)	
Nitrate	mg/L	0.11		0.05				0.10	0.04	
Nitrite	mg/L	0.09		0.028				0.035	0.025	
pH		6.61		7.26		7.68		7.2	6.83	
Redox	mV	-122		36		-71		-139	-184	
Salinity								0.0		
Sulfate	mg/L			0				0.0	0	
Sulfide	mg/L							1.2		
TDS								0.7		
Temperature	C							11.44	11.93	
Turbidity	NTUs							38.2	13.4	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		0.2 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L	0.2 (JB)		0.1 (J)						
Di-n-butylphthalate	ug/L	1 (JB)		0.1 (JB)						
Di-n-octylphthalate	ug/L			0.07 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Methylene Chloride	ug/L					0.7 (J)				

Well ID: WVA-SA-MW-38

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	289		234		205		83	189	
Carbon Dioxide	PPB	6600								
Chloride	mg/L	106		154		15		40	69	
Conductivity	mohm/cm							0.665	0.83	
Dissolved Oxygen	mg/L	0.96		0.37		0.68		2.67	0.7	
DOC	mg/L	6.29		5.25				3.45		
DOC Average Quads	mg/L								0.54 (B)	
Ferrous Iron	mg/L	0.01		0		0		0.02	0.01	
Methane	PPB	750								
Methane	ug/L			54.8		11		220	11	
Nitrate	mg/L	0.07		0.03		0.04		0.11	0.02	
Nitrite	mg/L	0.2		0.019		0.007		0.03	0.012	
pH		6.32		6.65		6.96		6.67	6.68	
Redox	mV	195		185		227		59	59	
Salinity								0.0		
Sulfate	mg/L	59		71		53		50	63	
Sulfide	mg/L			1				1		
TDS								0.43		
Temperature	C							14.9	12.05	
Turbidity	NTUs							15.5	10.2	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.8 (JB)		0.2 (JB)						
Butylbenzylphthalate	ug/L			0.06 (JB)						
Diethylphthalate	ug/L	0.2 (JB)		0.06 (JB)						
Di-n-butylphthalate	ug/L	1 (JB)		0.09 (J)						
Di-n-octylphthalate	ug/L	0.2 (JB)		0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1,2,2-Tetrachloroethane	ug/L	2 (J)								
1,1,2-Trichloroethane	ug/L	1 (J)								
1,2-Dichloroethane	ug/L	0.5 (J)								
2-Butanone	ug/L	3 (JB)				2 (JB)				
4-Methyl-2-Pentanone	ug/L	2 (JB)								
Bromoform	ug/L	2 (J)								
Dibromochloromethane	ug/L	0.6 (J)								
Methylene Chloride	ug/L					0.5 (J)				
trans-1,3-Dichloropropene	ug/L	0.5 (J)								
Trichloroethene	ug/L	0.8 (J)								
Vinyl Chloride	ug/L	2								

Well ID: WVA-SA-MW-39

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L							230	202	
Chloride	mg/L							95	189	
Conductivity	mohm/cm							1.36	1.19	
Dissolved Oxygen	mg/L	6.08				0.59		0.0	1.48	
DOC	mg/L					12.7		8.18		
DOC Average Quads	mg/L								9.7	
Ethane	ug/L					430		190	46	
Ethene	ug/L					260 (D)		150	31	
Ferrous Iron	mg/L							3.3	1.71	
Methane	ug/L					5900 (E)		5200	1000 (E)	
Nitrate	mg/L							0.0	0	
Nitrite	mg/L							0.0	0.021	
pH		11.19				6.45		6.46	6.28	
Redox	mV	-118				16		-3	-19	
Salinity								0.1		
Sulfate	mg/L							0.0	45	
Sulfide	mg/L					1		1		
TDS								0.9		
Temperature	C							10.38	12.82	
Turbidity	NTUs							456.0	243	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Anthracene	ug/L					0.2 (J)				
bis(2-Ethylhexyl)phthalate	ug/L					0.9 (JB)				
Diethylphthalate	ug/L					0.1 (J)				
Di-n-butylphthalate	ug/L					0.2 (JB)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1 1-Dichloroethene	ug/L								14	
2-Butanone	ug/L					99 (JB)				
Benzene	ug/L							22	31	
cis-1,2-Dichloroethene	ug/L					4700		4000		
Methylene chloride	ug/L					200 (JB)		56 (JB)	13 (JB)	
Tetrachloroethene	ug/L					160 (J)		240	520 (A)	
Toluene	ug/L								3 (J)	
trans-1 2-Dichloroethene	ug/L								26 (J)	
Trichloroethene	ug/L					560		600	1000 (A)	
Vinyl chloride	ug/L					2300		2100	1500	

Well ID: WVA-SA-MW-41

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	455		460				180	69	
Chloride	mg/L	47		419				68	64	
Conductivity	mohm/cm							1.21	0.389	
Dissolved Oxygen	mg/L	0.14		0.30		4.21		2.34	3	
DOC	mg/L	1.57		2.06		8.12		4.56		
DOC (Dup)	mg/L							3.57		
DOC Average Quads	mg/L								2	
DOC Average Quads (Dup)	mg/L								0.86 (B)	
Ethane	PPB	7.6								
Ethane	ug/L			20.8		31		11 (D)		
Ethane (Dup)	ug/L							13 (D)		
Ethene	ug/L			26.1		13		5.2		
Ethene	PPB	9.9								
Ethene (Dup)	ug/L							7.3		
Ferrous Iron	mg/L	0.01		0.01				0.01	0.18	
Methane	PPB	25000 (D)								
Methane	ug/L			8380 (E)		6700 (E)		2400 (E)		
Methane (Dup)	ug/L							2500 (E)		
Nitrate	mg/L	0.06		0.17				1.44	0.55	
Nitrite	mg/L	0.031		0.011				0.360	0.009	
pH		8.27		9.60		10.96		11.01	6.73	
Redox	mV	-90.1		-181		-55		19	69	
Salinity								0.1		
Sulfate	mg/L			2				9.0	76	
Sulfide	mg/L			1.5		1		1		
Sulfide (Dup)	mg/L							1		
TDS								0.8		
Temperature	C							12.12	12.01	
Turbidity	NTUs							26.7	4.8	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	0.9 (JB)		0.2 (JB)		0.6 (JB)				
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L	0.3 (J)		0.1 (JB)						
Di-n-butylphthalate	ug/L	0.5 (JB)		0.2 (J)		0.2 (JB)				
Di-n-octylphthalate	ug/L	0.2 (JB)		0.06 (JB)						
Naphthalene	ug/L			0.05 (J)						
Phenol	ug/L			0.6 (J)						

Well ID: WVA-SA-MW-41

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	3 (JB)				4 (JB)				
Carbon Disulfide	ug/L	2 (J)		30		3 (J)				
Chlorobenzene	ug/L	2 (J)								
Chloroform	ug/L			0.7 (JB)						
cis-1,2-Dichloroethene	ug/L	4 (J)		8		16		10		
cis-1,2-Dichloroethene (Dup)	ug/L							10		
Methylene Chloride	ug/L	0.3 (J)		1 (JB)						
Toluene	ug/L	0.2 (J)								
Vinyl Chloride	ug/L	7		18		31		19		
Vinyl Chloride (Dup)	ug/L							19		
Xylene (total)	ug/L	0.5 (J)								

ell ID: WVA-SA-MW-45

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Bromodichloromethane	ug/L	5								
Bromomethane	ug/L							3 (J)		
Carbon Disulfide	ug/L	0.3 (JB)								
Chloromethane	ug/L							2 (J)		
cis-1,2-Dichloroethene	ug/L			1 (J)						
Methylene Chloride	ug/L					0.7 (JB)				
Trichlorofluoromethane	ug/L					0.2 (JB)				
Vinyl Chloride	ug/L	36		6		2				

Well ID: WVA-SA-MW-46

ETHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			310				71		
Chloride	mg/L			580				85		
Conductivity	mohm/cm							0.300		
Dissolved Oxygen	mg/L			3.87		8.76		0.57		
DOC	mg/L			9.74						
Ferrous Iron	mg/L			0.01				0.12		
Nitrate	mg/L			0.26				0.63		
Nitrite	mg/L			0.075				0.054		
pH				6.45		6.64		6.24		
Redox	mV			149		108		268		
Salinity								0.0		
Silica	mg/L			7.57						
Sulfate	mg/L			31				18		
Sulfide	mg/L			1.2						
TDS								0.2		
Temperature	C							20.58		
Turbidity	NTUs							193		

ETHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.6 (JB)						
Di-n-butylphthalate	ug/L			0.1 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (JB)				2 (JB)				
Carbon Disulfide	ug/L	0.8 (J)								
Chloromethane	ug/L	0.6 (J)						2 (J)		
Methylene Chloride	ug/L	0.6 (J)		0.4 (J)		1 (JB)				

Well ID: WVA-SA-MW-45

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	336		150				118		
Chloride	mg/L	252		180				50		
Conductivity	mohm/cm							0.352		
Dissolved Oxygen	mg/L	0.55		3.00		3.50		0.0		
DOC	mg/L			10.4		39.6		5.47		
Ethane	ug/L			30.9						
Ethene	ug/L			53.6						
Ferrous Iron	mg/L	2.81		0				0.22		
Methane	ug/L			5810 (D)		2.0		37		
Nitrate	mg/L	0.07		0.3				0.14		
Nitrite	mg/L	0.007		0.005				0.0		
pH		6.43		6.50		6.92		6.89		
Redox	mV			263		-31		182		
Salinity								0.0		
Silica	mg/L	22.5		11.1		12.7		5.28		
Sulfate	mg/L	27		35				10		
Sulfide	mg/L					1		1		
TDS								0.24		
TDS	mg/L	809								
Temperature	C							11.81		
Turbidity	NTUs							62.6		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthylene	ug/L			0.4 (J)						
Anthracene	ug/L			0.1 (JB)						
Benzo(a)anthracene	ug/L			0.1 (JB)						
Benzo(a)pyrene	ug/L			0.1 (JB)						
Benzo(b)fluoranthene	ug/L			0.1 (JB)						
Benzo(g,h,i)perylene	ug/L			0.1 (J)						
Benzo(k)fluoranthene	ug/L			0.1 (JB)						
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Chrysene	ug/L			0.1 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)				.1 (J)		
Fluoranthene	ug/L			0.2 (JB)						
Indeno(1,2,3-cd)pyrene	ug/L			0.08 (JB)						
Phenanthrene	ug/L			0.1 (JB)						
Pyrene	ug/L			0.2 (JB)						

ell ID: WVA-SA-MW-47

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	14		220				60		
Chloride	mg/L	157		100				54		
Conductivity	mV							0.283		
Dissolved Oxygen	mohm/cm							0.0		
Dissolved Oxygen	mg/L	0.58		8.24		2.55				
DOC	mg/L			9.14		11.3		6.55		
Ferrous Iron	mg/L	0.01		0.07				0.0		
Methane	ug/L							1400		
Nitrate	mg/L	0.04		0.2				0.02		
Nitrite	mg/L	0.008		0				0.00		
pH		10.03		7.55		7.50				
pH	mg/L							7.41		
Redox	mg/L							1555		
Redox	mV	-340		171		-77				
Salinity								0.0		
Silica	mg/L			7.53		2.7		4.75		
Sulfate	mg/L	11		36				15		
Sulfide	mg/L	*		1		1		1		
TDS	NTUs							0.18		
Temperature								13.64		
Turbidity	C							37.7		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzo(a)anthracene	ug/L			0.2 (J)						
Benzo(a)pyrene	ug/L			0.2 (J)						
Benzo(b)fluoranthene	ug/L			0.2 (J)						
Benzo(k)fluoranthene	ug/L			0.3 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			0.7 (JB)		0.7 (JB)				
Chrysene	ug/L			0.2 (J)						
Di-n-butylphthalate	ug/L			0.09 (J)		0.2 (J)				
Di-n-octylphthalate	ug/L							.6 (J)		
Fluoranthene	ug/L			0.2 (J)						
Pyrene	ug/L			0.3 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	5 (JB)				2 (JB)				
4-Methyl-2-Pentanone	ug/L	4 (JB)								
Benzene	ug/L	0.8								
Bromomethane	ug/L	1 (JB)								
Chloromethane	ug/L	0.7 (J)						1 (J)		
Methylene Chloride	ug/L	0.6 (JB)		0.4 (J)						

Well ID: WVA-SA-MW-48

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			64						
Chloride	mg/L			108				60		
Conductivity	mohm/cm							0.245		
Dissolved Oxygen	mg/L			6.40		9.42		3.87		
DOC	mg/L			6.27						
Ferrous Iron	mg/L			0.15						
Methane	ug/L					2.0				
Nitrate	mg/L			1.91						
Nitrite	mg/L			0.011						
pH				6.60		6.84		6.96		
Redox	mV			304		110		249		
Salinity								0.0		
Silica	mg/L			6.06						
Sulfate	mg/L			40						
Sulfide	mg/L			1.5						
TDS								0.16		
Temperature	C							15.32		
Turbidity	NTUs							259		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L			0.1 (J)						
Di-n-butylphthalate	ug/L			0.1 (JB)						
Fluoranthene	ug/L			0.08 (J)						
Pyrene	ug/L			0.07 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Methylene Chloride	ug/L	0.8 (J)								
Toluene	ug/L	0.4 (J)								

ell ID: WVA-SA-MW-49

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	227		166				116		
Chloride	mg/L	226		200				60		
Conductivity	mohm/cm							0.398		
Dissolved Oxygen	mg/L	0.94		1.80		5.99		0.0		
DOC	mg/L	19.4		6.5				3.45		
Ferrous Iron	mg/L	1.38		0.1				0.02		
Nitrate	mg/L	0.04		0.11				0.59		
Nitrite	mg/L	0.021		0.008				0.032		
pH		6.50		6.70		6.87		6.9		
Redox	mV	-17		280		144		303		
Salinity								0.0		
Silica	mg/L			10.8				6.15		
Sulfate	mg/L	67		76				50		
Sulfide	mg/L	*		3.1				1		
TDS								0.25		
Temperature	C							10.77		
Turbidity	NTUs							53.1		

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L			0.2 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L			0.06 (J)						
Di-n-butylphthalate	ug/L			0.1 (JB)						
Di-n-octylphthalate	ug/L			0.07 (J)						

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	1 (JB)				2 (JB)				
Methylene Chloride	ug/L	0.9 (JB)								
Vinyl Chloride	ug/L	8		2						

Well ID: WVA-SA-MW-50

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	126		159				162		
Chloride	mg/L	418		325				1.0		
Conductivity	mohm/cm							1.32		
Dissolved Oxygen	mg/L	0.91		0.50		1.35		0.20		
DOC	mg/L			15.9		7.32		7.68		
Ferrous Iron	mg/L	1.72						0.06		
Methane	ug/L			79.6				4.6		
Nitrate	mg/L	0.05		0.1				0.04		
Nitrite	mg/L	0.013		0.004				0.022		
pH		6.30		7.60		6.90		6.61		
Redox	mV	77		220		-33		117		
Salinity								0.1		
Silica	mg/L	17.6		5.71		12.6		8.03		
Sulfate	mg/L	1		15				56		
Sulfide	mg/L					1		1		
TDS								0.8		
TDS	mg/L	994								
Temperature	C							13.69		
Turbidity	NTUs							2.3		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthylene	ug/L			0.06 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			0.8 (JB)		0.7 (JB)				
Butylbenzylphthalate	ug/L			0.4 (JB)						
Diethylphthalate	ug/L			0.1 (J)						
Di-n-butylphthalate	ug/L			0.2 (JB)		0.2 (JB)				
Di-n-octylphthalate	ug/L			0.2 (J)						
Phenol	ug/L			0.09 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					2 (JB)				
Bromodichloromethane	ug/L	5								
cis-1,2-Dichloroethene	ug/L	6				1 (J)				
Methylene Chloride	ug/L	0.3 (J)						.4 (JB)		
Methylene chloride (BS)	ug/L									1 (J)
Toluene	ug/L	0.2 (JB)								
Vinyl Chloride	ug/L	120		3		14		3		

ell ID: WVA-SA-MW-51

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			170						
Chloride	mg/L			970						
Conductivity	mohm/cm							0.99		
Dissolved Oxygen	mg/L			3.68		2.10		4.44		
DOC	mg/L			5.31						
Ferrous Iron	mg/L			0.11						
Nitrate	mg/L			0.91						
Nitrite	mg/L			0.048						
pH				6.45		7.14		6.64		
Redox	mV			174		685		124		
Salinity								0.0		
Silica	mg/L			16.4						
Sulfate	mg/L			62						
Sulfide	mg/L			1						
TDS								0.6		
Temperature	C							14.0		
Turbidity	NTUs							41.4		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.7 (JB)						
Diethylphthalate	ug/L			0.1 (J)						
Di-n-butylphthalate	ug/L			0.1 (J)						
Di-n-octylphthalate	ug/L			0.5 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					3 (JB)				
cis-1,2-Dichloroethene (BS)	ug/L			11000						
Tetrachloroethene (BS)	ug/L			21000						
Trichloroethene (BS)	ug/L			1800						
Vinyl Chloride (BS)	ug/L			150 (J)						

Well ID: WVA-SA-MW-52

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	13		200				57		
Chloride	mg/L	120		120				29		
Conductivity	mohm/cm							0.210		
Dissolved Oxygen	mg/L	0.39		3.70		1.02		2.13		
DOC	mg/L			7.6		4.81				
Ferrous Iron	mg/L			0				0.19		
Methane	ug/L			730				2.8		
Nitrate	mg/L	0.11		0				0.0		
Nitrite	mg/L	0.037		0				0.70		
pH		9.31		8.92		7.16		7.23		
Redox	mV	-223.1		33		57		22		
Salinity								0.0		
Silica	mg/L			2.46		3.68				
Sulfate	mg/L	58		14				5		
Sulfide	mg/L			1		1				
TDS								0.14		
TDS	mg/L	320								
Temperature	C							16.77		
Turbidity	NTUs							101		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.9 (JB)		0.6 (JB)				
Di-n-butylphthalate	ug/L			0.3 (JB)		0.3 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					2 (JB)				

Well ID: WVA-SA-MW-53

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			104				80		
Chloride	mg/L			55.2				26		
Conductivity	mohm/cm							0.252		
Dissolved Oxygen	mg/L			9.22		6.80		6.18		
DOC	mg/L			1.94						
Ferrous Iron	mg/L			0.39				1.98		
Nitrate	mg/L			0				12.0		
Nitrite	mg/L			0				0.145		
pH				7.84		7.43		7.38		
Redox	mV			189		221		124		
Salinity								0.0		
Silica	mg/L			3.93						
Sulfate	mg/L			7				2.0		
Sulfide	mg/L			1						
TDS								2.16		
Temperature	C							18.48		
Turbidity	NTUs							199		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzo(a)anthracene	ug/L			0.07 (J)						
Benzo(a)pyrene	ug/L			0.1 (J)						
Benzo(b)fluoranthene	ug/L			0.1 (J)						
Benzo(g,h,i)perylene	ug/L			0.08 (J)						
Benzo(k)fluoranthene	ug/L			0.09 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Chrysene	ug/L			0.08 (J)						
Diethylphthalate	ug/L			0.4 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)						
Fluoranthene	ug/L			0.1 (J)						
Indeno(1,2,3-cd)pyrene	ug/L			0.07 (J)						
Pyrene	ug/L			0.09 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L					2 (JB)				
Chloromethane	ug/L							3 (J)		
Methylene Chloride	ug/L			0.9 (J)						

Well ID: WVA-SA-MW-54

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	360		96				83		
Chloride	mg/L	160		97.6				7.0		
Conductivity	mohm/cm							0.588		
Dissolved Oxygen	mg/L	1.18		15.05		0.96		2.84		
DOC	mg/L	19.2		2.86		5.68		6.19		
Ferrous Iron	mg/L	0.11		0.01				0.04		
Methane	ug/L			16.8				2.4		
Nitrate	mg/L	0.08		0				0.16		
Nitrite	mg/L	0.033		0				0.0		
pH		6.48		7.61		6.54		6.71		
Redox	mV	100.9		168		62		53		
Salinity								0.0		
Silica	mg/L			3.93		4.04		5.76		
Sulfate	mg/L	80		17				80		
Sulfide	mg/L	*		1		1		1.4		
TDS								0.14		
Temperature	C							11.84		
Turbidity	NTUs							55.3		

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Benzo(a)anthracene	ug/L			0.08 (J)						
Benzo(a)pyrene	ug/L			0.1 (J)						
Benzo(b)fluoranthene	ug/L			0.1 (J)						
Benzo(g,h,i)perylene	ug/L			0.09 (J)						
Benzo(k)fluoranthene	ug/L			0.1 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			0.7 (JB)		0.6 (JB)				
Butylbenzylphthalate	ug/L			0.2 (JB)						
Chrysene	ug/L			0.09 (J)						
Diethylphthalate	ug/L			0.2 (JB)		2 (J)				
Di-n-butylphthalate	ug/L			0.3 (JB)		0.2 (JB)				
Di-n-octylphthalate	ug/L			0.1 (JB)						
Fluoranthene	ug/L			0.1 (J)						
Indeno(1,2,3-cd)pyrene	ug/L			0.08 (J)						
Pyrene	ug/L			0.1 (J)		0.2 (J)				

Well ID: WVA-SA-MW-54

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
1 1 2 2-Tetrachloroethane (BS)	ug/L									0.7 (J)
2-Butanone	ug/L	2 (JB)				2 (JB)				
4-Methyl-2-Pentanone	ug/L	2 (JB)								
Bromodichloromethane	ug/L	5								
Bromomethane	ug/L	0.9 (JB)								
Chloromethane	ug/L	0.9 (J)								
cis-1,2-Dichloroethene	ug/L	1 (J)								
Methylene Chloride	ug/L			9				.6 (JB)		
Vinyl Chloride	ug/L	13								

Well ID: WVA-SA-MW-55

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			150				71		
Chloride	mg/L			60				30		
Conductivity	mohm/cm							0.99		
Dissolved Oxygen	mg/L	1.46		4.73		0.88		0.50		
DOC	mg/L	26.1		11		7.53				
Ferrous Iron	mg/L			0.22				0.0		
Methane	ug/L					4.1				
Nitrate	mg/L			0.99				0.17		
Nitrite	mg/L			0				0.013		
pH		6.30		7.54		7.06		6.8		
Redox	mV	61.5		150		20		172		
Salinity								0.0		
Silica	mg/L			5.49		10.9				
Sulfate	mg/L			80				80		
Sulfide	mg/L	2,430				1				
TDS								2.4		
Temperature	C							10.8		
Turbidity	NTUs							312		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthylene	ug/L			0.3 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)		0.6 (JB)				
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)		0.2 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	3 (JB)				2 (JB)				
4-Methyl-2-Pentanone	ug/L	0.7 (J)								
cis-1,2-Dichloroethene	ug/L	0.4 (J)								
Methylene Chloride	ug/L			7						
Methylene chloride (BS)	ug/L									1 (J)
Trichloroethene	ug/L			0.8 (J)						
Vinyl Chloride	ug/L	1 (J)								
Xylene (total)	ug/L	0.2 (J)								

ell ID: WVA-SA-MW-56

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	225		145				27		
Carbon Dioxide	ug/L			3000						
Chloride	mg/L	675						39		
Conductivity	mohm/cm							0.689		
Dissolved Oxygen	mg/L	3.17		6.45		2.34		4.27		
DOC	mg/L			3.89		5.09				
Ferrous Iron	mg/L	0.02		0				0.03		
Methane	ug/L			54.6		5.1				
Nitrate	mg/L	0.35		0.55				0.18		
Nitrite	mg/L	0.098		0				0.004		
pH		6.54		6.09		6.33		6.06		
Redox	mV	108		199		199		212		
Salinity								0.0		
Silica	mg/L			11.2		12.7				
Sulfate	mg/L	80		80				80		
Sulfide	mg/L					1				
TDS								0.44		
Temperature	C							10.96		
Turbidity	NTUs							0.0		

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Acenaphthylene	ug/L			0.1 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			0.5 (JB)						
Butylbenzylphthalate	ug/L			0.3 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.1 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)						

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	3 (JB)								
4-Methyl-2-Pentanone	ug/L	0.6 (J)								
Benzene	ug/L					0.9				
Methylene Chloride	ug/L	0.3 (J)				4 (JB)		.6 (JB)		
Tetrachloroethene	ug/L	0.2 (J)								
Toluene	ug/L	0.1 (J)								
Trichloroethene	ug/L	0.2 (J)								
Xylene (total)	ug/L	.3 (J)								

Well ID: WVA-SA-MW-57

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	41		131						
Chloride	mg/L	26		189						
Conductivity	mohm/cm							0.209		
Dissolved Oxygen	mg/L	1.08		1.40		1.25		3.39		
DOC	mg/L			6.42						
Ferrous Iron	mg/L			2.1						
Methane	ug/L			1590 (E)						
Nitrate	mg/L	0.07		0.2						
Nitrite	mg/L	0.26		0.014						
pH		9.37		9.30		7.42		7.56		
Redox	mV	-170.3		-42		156		15		
Salinity								0.0		
Silica	mg/L			3.31						
Sulfate	mg/L	10		4						
TDS								0.13		
Temperature	C							17.03		
Turbidity	NTUs							150		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.4 (J)						
Diethylphthalate	ug/L			0.2 (J)						
Di-n-butylphthalate	ug/L			0.3 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	6 (J)				3 (JB)				
Benzene	ug/L	0.4 (J)								
Carbon Disulfide	ug/L	4 (J)								
Methylene Chloride	ug/L			2 (J)				.5 (JB)		
Methylene chloride (BS)	ug/L									1 (J)

Well ID: WVA-SA-MW-59

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			104						
Chloride	mg/L			122						
Dissolved Oxygen	mg/L	1.71		6.16		6.73				
DOC	mg/L	15.1		3.51						
Ferrous Iron	mg/L			0.24						
Methane	ug/L					11		2.7		
Nitrate	mg/L			0.2						
Nitrite	mg/L			0.035						
pH		6.05		6.82		6.85				
Redox	mV	82.7		249		47				
Silica	mg/L			7.04						
Sulfate	mg/L			80						
Sulfide	mg/L	*		1						

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.2 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L			0.07 (J)						
Di-n-octylphthalate	ug/L			0.06 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (JB)				2 (JB)				
Chlorobenzene	ug/L	4 (J)								
Chloromethane	ug/L	0.5 (J)								

Well ID: WVA-SA-MW-60

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	104		144				148		
Carbon Dioxide	ug/L			4200						
Chloride	mg/L	201		167				238		
Conductivity	mohm/cm							1.05		
Dissolved Oxygen	mg/L	2.43		0.00		0.00		0.0		
DOC	mg/L			6.85		13.6		5.38		
Ethane	ug/L			6.8		27		22		
Ethene	ug/L			5.4 (J)		160		130		
Ferrous Iron	mg/L	3.3		0				3.3		
Methane	ug/L			117		780		1000		
Nitrate	mg/L	0.06		0				0.09		
Nitrite	mg/L	0.031		0.002				0.0		
pH		5.49		5.77		5.98		6.03		
Redox	mV	75.5		117		69		123		
Salinity								0.0		
Silica	mg/L	18.7		14.5		16.8		9.46		
Sulfate	mg/L	42		39				33		
Sulfide	mg/L					1		1		
TDS								0.7		
TDS	mg/L	583								
Temperature	C							11.81		
Turbidity	NTUs							21.9		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	13 (J)				42 (J)				
Benzene (BS)	ug/L									5 (J)
Bromodichloromethane	ug/L	5								
cis-1 2-Dichloroethene (BS)	ug/L									180 (H)
cis-1,2-Dichloroethene	ug/L	230		190		190		160		
Methylene Chloride	ug/L	10 (J)		64 (JB)		33 (J)		13 (JB)		
Methylene chloride (BS)	ug/L									3 (J)
Vinyl Chloride	ug/L	2,100		1900		1700		1600		
Vinyl chloride (BS)	ug/L									1200

ell ID: WVA-SA-MW-61

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	278		35				30		
Chloride	mg/L	171		546				267		
Conductivity	mohm/cm							0.920		
Dissolved Oxygen	mg/L	0.28		0.40		0.00		0.0		
DOC	mg/L			6.01		13.8		3.66		
Ethane	ug/L			21.3						
Ethene	ug/L			143				12		
Ferrous Iron	mg/L	3.3		3.3				0.32		
Methane	ug/L			8860 (E)		810		4000 (E)		
Nitrate	mg/L	>80		0.15				0.0		
Nitrite	mg/L			0.008				0.014		
pH		6.25		7.00		6.86		6.7		
Redox	mV	-103.9		-110		-117		-66		
Salinity								0.0		
Silica	mg/L	18.1				11.3		2.31		
Sulfate	mg/L	3		0				2.0		
Sulfide	mg/L					1		1		
TDS								0.59		
TDS	mg/L	607								
Temperature	C							14.36		
Turbidity	NTUs							0.0		

ETHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Butylbenzylphthalate	ug/L			0.3 (J)						
Diethylphthalate	ug/L			0.2 (J)						
Di-n-butylphthalate	ug/L			0.4 (J)						
Phenol	ug/L			0.7 (J)						

ETHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	1 (JB)				3 (J)				
Benzene	ug/L	5				0.8		.4 (J)		
Bromodichloromethane	ug/L	5								
Chlorobenzene	ug/L	1 (J)								
cis-1,2-Dichloroethene	ug/L	1 (J)						.6 (J)		
cis-1,2-Dichloroethene (BS)	ug/L			140						
Methylene Chloride	ug/L							.3 (JB)		
Methylene chloride (BS)	ug/L									0.4 (J)
Trichloroethene (BS)	ug/L			1.1 (J)						
Vinyl Chloride	ug/L	7		2.4 (J)						
Vinyl Chloride (BS)	ug/L			1.0 (J)						

Well ID: WVA-SA-MW-62

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	29		128				122		
Chloride	mg/L	158		713				88		
Conductivity	mohm/cm							0.842		
Dissolved Oxygen	mg/L	0.28		0.10		0.00		0.0		
DOC	mg/L			8.6		17.1		4.31		
Ethane	ug/L			41.9		44		32		
Ethene	ug/L			175		86 (D)		67		
Ferrous Iron	mg/L	0.01		0				0.01		
Methane	ug/L			13300 (D)		7200 (D)		6800 (E)		
Nitrate	mg/L	0.17		0.31				0.04		
Nitrite	mg/L	0.044		0.028				0.019		
pH		9.52		9.90		10.52		10.53		
Redox	mV	-176		-281		-421		-384		
Salinity								0.0		
Silica	mg/L			3.26		3.09		2		
Sulfate	mg/L	2		2				7.0		
Sulfide	mg/L					1		1		
TDS								0.54		
TDS	mg/L	330								
Temperature	C							12.19		
Turbidity	NTUs							25.8		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)		1 (J)				
Di-n-butylphthalate	ug/L			0.2 (J)						
Phenol	ug/L			1		2				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzene	ug/L	1				0.5 (J)				
Benzene (BS)	ug/L									1 (J)
Bromodichloromethane	ug/L	5								
Chlorobenzene	ug/L	1 (J)								
Toluene (BS)	ug/L									0.4 (J)

ell ID: WVA-SA-MW-63

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	313		169				409		
Carbon Dioxide	ug/L			3900						
Chloride	mg/L	77		387				138		
Conductivity	mohm/cm							1.7		
Dissolved Oxygen	mg/L	6.83				3.02		0.0		
DOC	mg/L			16.6		36.9		32.8		
Ethane	ug/L					6.5				
Ethene	ug/L					28		10		
Ferrous Iron	mg/L	3.3		3.3				3.3		
Methane	ug/L			3.5		7600 (E)		3600 (D)		
Nitrate	mg/L	0.09		0.03				0.02		
Nitrite	mg/L	0.074		0.003				0.021		
pH		6.00		6.26		6.40		6.59		
Redox	mV	-16		3		-58		-94		
Salinity								0.1		
Silica	mg/L	23.5		7.22		2		9.24		
Sulfate	mg/L	57						0.0		
Sulfide	mg/L					1		1		
TDS								1.1		
TDS	mg/L	725								
Temperature	C							12.45		
Turbidity	NTUs							157.0		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthylene	ug/L			0.2 (J)						
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)				.2 (J)		
Butylbenzylphthalate	ug/L			0.3 (JB)						
Diethylphthalate	ug/L			0.2 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.08 (JB)				.2 (J)		
Pyrene	ug/L			0.05 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
cis-1,2-Dichloroethene	ug/L			3 (J)		4 (J)		1 (J)		
Methylene Chloride	ug/L					4 (JB)				
Toluene	ug/L					0.5 (J)				
Vinyl Chloride	ug/L			69		73		30		

Well ID: WVA-SA-MW-64

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	108		186				78		
Chloride	mg/L	238		148				79		
Conductivity	mohm/cm							0.439		
Dissolved Oxygen	mg/L	0.45		0.00		2.93		0.0		
DOC	mg/L			7.39		7.23		3.64		
Ethane	ug/L					270		14		
Ethene	ug/L			7.0		36 (D)		8.6		
Ferrous Iron	mg/L	3.3		0.07				0.22		
Methane	ug/L			3480 (E)		5600 (E)		990		
Nitrate	mg/L	0.02		0				0.0		
Nitrite	mg/L	0.016		0.001				0.009		
pH		6.46		7.99		7.23		7.36		
Redox	mV	-81.7		11		-121		-82		
Salinity								0.0		
Silica	mg/L	15.0		4.77		12.9		5.82		
Sulfate	mg/L			16				7.0		
Sulfide	mg/L			1.6		1		1		
TDS								0.29		
TDS	mg/L	508								
Temperature	C							12.59		
Turbidity	NTUs							41.7		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	6 (JB)								
Benzene (BS)	ug/L									2 (J)
Bromodichloromethane	ug/L	5								
Chloromethane	ug/L							2 (J)		
cis-1 2-Dichloroethene (BS)	ug/L									5
cis-1,2-Dichloroethene	ug/L	16 (J)		2 (J)		4 (J)		1 (J)		
Ethylbenzene	ug/L	3 (J)								
Methylene Chloride	ug/L					0.4 (J)		.4 (JB)		
Methylene chloride (BS)	ug/L									1 (J)
Vinyl Chloride	ug/L	550		45		110		48		
Vinyl chloride (BS)	ug/L									130

ell ID: WVA-SA-MW-65

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			129				222		
Chloride	mg/L			56				56		
Conductivity	mohm/cm							0.975		
Dissolved Oxygen	mg/L	3.00		3.5		2.95		0.0		
DOC	mg/L			2.81		8.24		9.86		
Ferrous Iron	mg/L			0.52				3.30		
Methane	ug/L			174		5.8				
Nitrate	mg/L			0.87				0.03		
Nitrite	mg/L			0.02				0.30		
pH		6.20		6.50		6.78		6.76		
Redox	mV	20.8		68		-23		-82		
Salinity								0.0		
Silica	mg/L			8.24		11.8		5.91		
Sulfate	mg/L			48				2.20		
Sulfide	mg/L					1		1		
TDS								0.62		
Temperature	C							16.14		
Turbidity	NTUs							14.0		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.5 (J)						
Diethylphthalate	ug/L			0.4 (J)						
Di-n-butylphthalate	ug/L			0.4 (JB)				.2 (J)		

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (J)				2 (J)				
Bromodichloromethane	ug/L	5								
Methylene Chloride	ug/L			2 (J)		0.9 (JB)				
Tetrachloroethene	ug/L			0.9 (J)						

Well ID: WVA-SA-MW-66

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	380		255				307		
Chloride	mg/L	179		158				73		
Conductivity	mohm/cm							1.36		
Dissolved Oxygen	mg/L	2.13		10.12		2.93		0.0		
DOC	mg/L			23.3		6.73		8.12		
Ethene	ug/L					4.0				
Ferrous Iron	mg/L	1.89		0.12				0.93		
Methane	ug/L					500		330		
Nitrate	mg/L	0.03		0.02				0.20		
Nitrite	mg/L	0.026		0.013				0.030		
pH		6.34		6.93		6.79		7.04		
Redox	mV	43.6		89		-97		141		
Salinity								0.1		
Silica	mg/L	26.4		13.6		17.5		13		
Sulfate	mg/L	4		3				4.0		
Sulfide	mg/L					1		1		
TDS								0.9		
TDS	mg/L	752								
Temperature	C							13.3		
Turbidity	NTUs							42.2		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Butylbenzylphthalate	ug/L			0.3 (JB)						
Diethylphthalate	ug/L			0.2 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Bromodichloromethane	ug/L	5								
Carbon Disulfide	ug/L	0.8 (J)								
Chlorobenzene	ug/L	2 (J)								
Chlorobenzene (BS)	ug/L									4 (J)
cis-1 2-Dichloroethene (BS)	ug/L									1 (J)
cis-1,2-Dichloroethene	ug/L	8 (J)		4 (J)		4 (J)		3 (J)		
Methylene Chloride	ug/L					0.7 (JB)				
Trichlorofluoromethane	ug/L					0.2 (JB)				
Vinyl Chloride	ug/L	6				2		3		

ell ID: WVA-SA-MW-67

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	18		127				88		
Chloride	mg/L	140		102				130		
Conductivity	mohm/cm							0.529		
Dissolved Oxygen	mg/L	0.58		0.20		2.73		0.0		
DOC	mg/L			3.63		3.31		2.37		
Ethane	ug/L							5.4		
Ethene	ug/L			5.1				8.5		
Ferrous Iron	mg/L	0.01		0.05				0.02		
Methane	ug/L			752				3600 (E)		
Nitrate	mg/L	0.02		0.35				0.08		
Nitrite	mg/L	0.009		0.011				0.002		
pH		9.78		9.10		9.68		10.23		
Redox	mV	-408		-214		-174		-132		
Salinity								0.0		
Silica	mg/L					2		6.72		
Sulfate	mg/L			12				0.90		
Sulfide	mg/L					1		1		
TDS								0.33		
TDS	mg/L	220								
Temperature	C							12.81		
Turbidity	NTUs							89.7		

ETHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			2 (JB)						
Phenol	ug/L			0.2 (J)						

ETHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	4 (JB)								
Bromodichloromethane	ug/L	5								
Methylene Chloride	ug/L					4 (JB)		.2 (JB)		

Well ID: WVA-SA-MW-68

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	435		37				179		
Chloride	mg/L	258		596				228		
Conductivity	mohm/cm							0.815		
Dissolved Oxygen	mg/L	0.78				2.93		0.0		
DOC	mg/L			2.39		7.6		3.47		
Ethene	ug/L							16		
Ferrous Iron	mg/L			3.07				0.51		
Methane	ug/L			427		770		1600 (D)		
Nitrate	mg/L	0.15		0.2				0.07		
Nitrite	mg/L	0.041		0.011				0.008		
pH		6.55		7.07		7.38		7.31		
Redox	mV	-70		-118		-37		-98		
Salinity								0.0		
Silica	mg/L	12.4		8.33		13.6		4.99		
Sulfate	mg/L	73		7				4.0		
Sulfide	mg/L					1		1		
TDS								0.52		
TDS	mg/L	695								
Temperature	C							12.3		
Turbidity	NTUs							11.4		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Bromodichloromethane	ug/L	5								
Bromomethane	ug/L	0.5 (J)								
Methylene Chloride	ug/L	0.3 (J)				4 (JB)		.4 (JB)		
Vinyl Chloride	ug/L					0.7 (J)				

ell ID: WVA-SA-MW-69

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L			43				89		
Carbon Dioxide	ug/L			2500						
Chloride	mg/L			178				190		
Conductivity	mohm/cm							0.793		
Dissolved Oxygen	mg/L	1.19				7.79		0.0		
DOC	mg/L			20.2						
Ethene	ug/L			78.9						
Ferrous Iron	mg/L			0.09				0.33		
Methane	ug/L			7550 (D)				2.1		
Nitrate	mg/L			2.43				2.43		
Nitrite	mg/L			0.077				0.126		
pH		6.40		6.06		6.57		5.79		
Redox	mV	61		187		-11		261		
Salinity								0.0		
Silica	mg/L			15.4						
Sulfate	mg/L			49				80		
TDS								0.51		
Temperature	C							11.09		
Turbidity	NTUs							24.2		

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L					2 (JB)				
Chloromethane	ug/L							2 (J)		
Methylene Chloride	ug/L			0.8 (JB)				.3 (JB)		

Well ID: WVA-SA-MW-70

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	236		231				149		
Carbon Dioxide	ug/L			35000						
Chloride	mg/L	346		464				36		
Conductivity	mohm/cm							1.42		
Dissolved Oxygen	mg/L	2.44		0.40		2.91		0.0		
DOC	mg/L			3.06		6.42		4.5		
Ethane	ug/L			7.2				11		
Ethene	ug/L			17.6				23		
Ferrous Iron	mg/L	0.16		0.34				1.09		
Methane	ug/L			383				840		
Nitrate	mg/L	0.12		0.3				0.09		
Nitrite	mg/L	0.091		0.015				0.030		
pH		6.60		6.70		6.83		6.59		
Redox	mV	67		19		28		5		
Salinity								0.1		
Silica	mg/L	18.0		9.17		16		8.44		
Sulfate	mg/L	29		72				80		
Sulfide	mg/L					1		1		
TDS								0.9		
TDS	mg/L	946								
Temperature	C							13.96		
Turbidity	NTUs							0.0		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.4 (J)		0.8 (J)				
Diethylphthalate	ug/L			0.5 (J)						
N-Nitrosodiphenylamine (1)	ug/L			0.3 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	0.8 (JB)								
Bromodichloromethane	ug/L	5								
Carbon Disulfide	ug/L			0.2 (J)						
cis-1 2-Dichloroethene (BS)	ug/L									54
cis-1,2-Dichloroethene	ug/L	150		53		81		56		
cis-1,2-Dichloroethene (BS)	ug/L			66						
Methylene Chloride	ug/L			1 (J)		4 (JB)		.6 (JB)		
Methylene chloride (BS)	ug/L									0.3 (J)
trans-1 2-Dichloroethene (BS)	ug/L									0.4 (J)
trans-1,2-Dichloroethene	ug/L	1 (J)		0.6 (J)		1 (J)				
Trichloroethene	ug/L	0.8 (J)		0.4 (J)		0.3 (J)				
Vinyl Chloride	ug/L	19		18		21		30		
Vinyl chloride (BS)	ug/L			26						19

ell ID: WVA-SA-MW-71

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	25		52						
Chloride	mg/L	262		765						
Dissolved Oxygen	mg/L	0.74		2.72		2.67				
DOC	mg/L					3.44		3.44		
Ethane	ug/L							8.6		
Ethene	ug/L			14.4				14		
Ferrous Iron	mg/L			0.33						
Methane	ug/L			6500 (D)				2000 (D)		
Nitrate	mg/L	0.1		0.05						
Nitrite	mg/L	0.085		0.017						
pH		7.63		7.74		7.75				
Redox	mV	-237		247		-61				
Silica	mg/L	4.37		6.51		5.63		5.95		
Sulfate	mg/L	4		40						
Sulfide	mg/L					1		1		
TDS	mg/L	558								

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzo(a)pyrene	ug/L			0.04 (JB)						
bis(2-Ethylhexyl)phthalate	ug/L			0.9 (JB)				.6 (J)		
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.2 (JB)						
Di-n-butylphthalate	ug/L			0.3 (JB)						
Di-n-octylphthalate	ug/L			0.07 (JB)						
Fluoranthene	ug/L			0.06 (JB)						
Phenol	ug/L			0.1 (JB)						
Pyrene	ug/L			0.04 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	4 (JB)								
Benzene	ug/L	0.3 (J)								
Bromodichloromethane	ug/L	5								
cis-1 2-Dichloroethene (BS)	ug/L									6
cis-1,2-Dichloroethene	ug/L	10		6		4 (J)		9		
Methylene Chloride	ug/L	0.3 (J)				0.7 (JB)		1 (JB)		
Vinyl Chloride	ug/L	2				0.4 (J)		3		

Well ID: WVA-SA-MW-72

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	31		37				64		
Carbon Dioxide (Dup)	ug/L			34000						
Chloride	mg/L	358		637				57		
Conductivity	mohm/cm							1.22		
Dissolved Oxygen	mg/L	0.58		0.30		0.00		0.0		
DOC	mg/L			2.32		4.09		4.73		
DOC (Dup)	mg/L			4.53		5.78		6.17		
Ethane	ug/L			34.3		5.9		19		
Ethane (Dup)	ug/L			35.3		7.6		20		
Ethene	ug/L			33.7		19		28		
Ethene (Dup)	ug/L			34.9		21		30		
Ferrous Iron	mg/L	0.02		0				0.0		
Methane	ug/L			10900 (D)		6300 (E)		6000 (E)		
Methane (Dup)	ug/L			4970 (D)		6700 (E)		6000 (E)		
Nitrate	mg/L	0.04		0.23				0.10		
Nitrite	mg/L	0.008		0.12				0.003		
pH		9.20		9.80		9.68		8.27		
Redox	mV	-348		-124		-54		-220		
Salinity								0.1		
Silica	mg/L					3.08		2		
Silica (Dup)	mg/L					2		2		
Sulfate	mg/L			0.53				23.0		
Sulfide	mg/L					1		1		
Sulfide (Dup)	mg/L					1		1		
TDS	mg/L	612								
TDS								0.9		
Temperature	C							13.32		
Turbidity	NTUs							2.2		

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate (Dup)	ug/L					1 (J)		.4 (J)		
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-butylphthalate (Dup)	ug/L			0.2 (JB)						
Phenol	ug/L			0.9 (J)						
Phenol (Dup)	ug/L			1						

ell ID: WVA-SA-MW-72

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	0.5 (JB)		2 (J)		3 (J)				
2-Butanone (Dup)	ug/L			2 (J)		3 (J)				
Benzene	ug/L	0.5 (J)		0.3 (J)		0.5 (J)				
Benzene (Dup)	ug/L			0.3 (J)		0.5 (J)				
Bromodichloromethane	ug/L	5								
cis-1 2-Dichloroethene (BS)	ug/L									3 (J)
cis-1,2-Dichloroethene	ug/L	30		11		18		22		
cis-1,2-Dichloroethene (BS)	ug/L			6.6						
cis-1,2-Dichloroethene (Dup)	ug/L			11		19		21		
Methylene Chloride	ug/L			2 (J)		0.5 (J)		1 (JB)		
Methylene Chloride (Dup)	ug/L			2 (J)		2 (J)		.5 (JB)		
Vinyl Chloride	ug/L	6		4		12		13		
Vinyl chloride (BS)	ug/L			2.4 (J)						2 (J)
Vinyl Chloride (Dup)	ug/L			4		12		13		

Well ID: WVA-SA-MW-73

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	41		67				6		
Chloride	mg/L	357		284				44		
Conductivity	mohm/cm							0.932		
Dissolved Oxygen	mg/L	99.5		0.13		0.00		0.0		
DOC	mg/L			4.62		3.28		4.33		
Ethene	ug/L					4.2				
Ferrous Iron	mg/L			0.51				0.06		
Methane	ug/L					5000 (E)		670		
Nitrate	mg/L	0.04		0.05				0.08		
Nitrite	mg/L	0.023		0.033				0.058		
pH		6.36		8.45		7.81		7.86		
Redox	mV	-96		-213		-96		70		
Salinity								0.0		
Silica	mg/L	3.82		3.4		3.4		4.66		
Sulfate	mg/L			16				16		
Sulfide	mg/L					1		1		
TDS								0.6		
TDS	mg/L	639								
Temperature	C							12.16		
Turbidity	NTUs							22.2		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthylene	ug/L			0.2 (J)						
Anthracene	ug/L			0.04 (JB)						
bis(2-Ethylhexyl)phthalate	ug/L			0.4 (JB)		1 (J)				
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.08 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.1 (JB)				.3 (J)		
Phenol	ug/L			0.6 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (JB)								
Benzene	ug/L	0.3 (J)								
Bromodichloromethane	ug/L	5								
cis-1,2-Dichloroethene	ug/L	4 (J)		11		11		2 (J)		
Ethylbenzene	ug/L	0.1 (JB)								
Methylene Chloride	ug/L					0.5 (JB)				
Toluene	ug/L	0.4 (JB)								
Trichlorofluoromethane	ug/L					0.2 (JB)				
Vinyl Chloride	ug/L	1 (J)		4		2				

Well ID: WVA-SA-MW-74

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	49		1.9				200		
Chloride	mg/L	400		875				24		
Conductivity	mohm/cm							0.97		
Dissolved Oxygen	mg/L	0.66		9.27		0.00		0.0		
DOC	mg/L			4.18		7.44		3.39		
Ethane	ug/L			15.1				6.5		
Ethene	ug/L			37.9		4.0		13		
Ferrous Iron	mg/L	2.43		0.26				0.68		
Methane	ug/L			10100 (D)		6100 (E)		5600 (E)		
Nitrate	mg/L	0.03		0				0.10		
Nitrite	mg/L	0.021		8.01				0.05		
pH		6.40		3.50		6.95		7.29		
Redox	mV	-99.7		-199		-11		-135		
Salinity								0.0		
Silica	mg/L	6.04		2.46		4.89		2.5		
Sulfate	mg/L			9				12.0		
Sulfide	mg/L					1		1		
TDS								0.62		
TDS	mg/L	757								
Temperature	C							13.5		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Acenaphthylene	ug/L			0.3 (J)						
Anthracene	ug/L			0.06 (JB)						
bis(2-Ethylhexyl)phthalate	ug/L			1 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.08 (JB)						
Di-n-butylphthalate	ug/L			0.2 (JB)						
Di-n-octylphthalate	ug/L			0.2 (JB)				.3 (J)		
Phenol	ug/L			0.5 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	9 (JB)				3 (J)				
Benzene	ug/L	0.4 (J)				0.4 (J)				
Bromodichloromethane	ug/L	5								
cis-1 2-Dichloroethene (BS)	ug/L									3 (J)
cis-1,2-Dichloroethene	ug/L	4 (J)		21		17		16		
Methylene Chloride	ug/L	0.3 (J)				3 (JB)				
Vinyl Chloride	ug/L	3		10		3		6		

Well ID: WVA-SA-MW-75

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			347				308		
Chloride	mg/L			700				155		
Conductivity	mohm/cm							1.41		
Dissolved Oxygen	mg/L	1.00		1.20		0.00		2.65		
DOC	mg/L	4.55		4.51						
Ferrous Iron	mg/L			0.12				0.0		
Methane	PPB	970								
Methane	ug/L			569		130 ( )				
Nitrate	mg/L			0.11				0.06		
Nitrite	mg/L			0.005				0.044		
pH		7.07		7.30		7.42		7.32		
Redox	mV	119		-9		-118		-92		
Salinity								0.1		
Sulfate	mg/L			80				1.0		
Sulfide	mg/L			1						
TDS								0.9		
Temperature	C							17.9		
Turbidity	NTUs							12.0		

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	1 (JB)		0.4 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L	0.9 (JB)		0.1 (JB)						
Di-n-butylphthalate	ug/L	1 (JB)		0.2 (J)						
Di-n-octylphthalate	ug/L	0.1 (JB)		0.09 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Carbon Disulfide	ug/L					2 (J)				
cis-1 2-Dichloroethene	ug/L									1 (J)
cis-1,2-Dichloroethene	ug/L					0.9 (J)				
Methylene Chloride	ug/L					3 (J)				
Vinyl chloride	ug/L					1 (J)				6

ell ID: WVA-SA-MW-76

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	409		399				200	270	
Carbon Dioxide	PPB	4600								
Chloride	mg/L	18		250				102	110	
Conductivity	mohm/cm							1.13	1.46	
Dissolved Oxygen	mg/L	0.83		0.80		0.00		1.78	1.13	
DOC	mg/L	7.60		6.38		9.67		8.64		
DOC Average Quads	mg/L								4.5	
Ferrous Iron	mg/L	1.64		1.76				2.39	0.05	
Methane	PPB	340								
Methane	ug/L			7.0		2.0		110		
Nitrate	mg/L	0.01		0.16				0.00	0	
Nitrite	mg/L	0.29		0.002				0.012	0	
pH		6.60		6.70		7.08		6.82	6.98	
Redox	mV	76		15		-72		-59	-57	
Salinity								0.1		
Sulfate	mg/L	17		80				80.0	80	
Sulfide	mg/L			1				1.6		
TDS								0.7		
Temperature	C							17.52	19.4	
Turbidity	NTUs							45.9	49.5	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.6 (JB)		2 (JB)		0.3 (J)				
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L	0.2 (JB)		0.1 (JB)						
Di-n-butylphthalate	ug/L	2 (JB)		0.1 (J)						
Di-n-octylphthalate	ug/L			0.1 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
4-Methyl-2-Pentanone	ug/L					0.9 (JB)				
Carbon disulfide	ug/L								6	
Methylene chloride	ug/L					0.9 (J)			2 (J)	

Well ID: WVA-SA-MW-77

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	257		323				211	132	
Carbon Dioxide	PPB	5200								
Carbon Dioxide	ug/L					1200				
Chloride	mg/L	158		33				100	15	
Conductivity	mohm/cm							0.921	0.483	
Dissolved Oxygen	mg/L	1.05		6.40		3.09		2..35	6.3	
DOC	mg/L	6.88		4.36		4.41		6.45		
DOC (Dup)	mg/L					3.65				
DOC Average Quads	mg/L								3.6	
Ferrous Iron	mg/L	0.12		0				0.02	0.15	
Methane	PPB	250								
Methane	ug/L					5.2				
Nitrate	mg/L	0.2		1.54				0.17	0.12	
Nitrite	mg/L	0.76		0.026				0.043	0.009	
pH		6.32		6.60		6.90		6.93	6.3	
Redox	mV	84.1		262		198		123	90	
Salinity								0.0		
Sulfate	mg/L	80		80				80	50	
Sulfide	mg/L			2.3				1.2		
TDS								0.58		
Temperature	C							14.17	13.39	
Turbidity	NTUs							12.6	36.4	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)		0.2 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L	0.3 (JB)		0.08 (J)						
Di-n-butylphthalate	ug/L	1 (JB)		0.1 (JB)						
Di-n-octylphthalate	ug/L	0.2 (JB)		0.05 (J)						
Phenanthrene	ug/L			0.05 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L	2 (JB)								
4-Methyl-2-Pentanone	ug/L	1 (JB)								
cis-1,2-Dichloroethene	ug/L			8						
Methylene Chloride	ug/L							.5 (JB)		

Well ID: WVA-SA-MW-EA-6

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L			116				66	93	
Carbon Dioxide	PPB	3600								
Chloride	mg/L			214.2				246	248	
Conductivity	mohm/cm							1.11	1.35	
Dissolved Oxygen	mg/L			0		2.65		0.0	1.29	
DOC	mg/L			3.15		13		3.63		
DOC Average Quads	mg/L								2.8	
Ferrous Iron	mg/L			0.01				0.0	0.03	
Methane	ug/L			110		5.1			2.5	
Nitrate	mg/L			1.83				1.7	0.006	
Nitrite	mg/L			0				0.026	0.022	
pH				6.08		6.15		6.21	6.21	
Redox	mV			231		157		306	158	
Salinity								0.0		
Sulfate	mg/L			50				55	68	
Sulfide	mg/L			1				1		
TDS								0.7		
Temperature	C							11.66	12.7	
Turbidity	NTUs							64.9	20.7	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzo(a)pyrene	ug/L			0.04 (J)						
bis(2-Ethylhexyl)phthalate	ug/L	1 (JB)		1 (JB)						
Butylbenzylphthalate	ug/L			0.5 (JB)						
Diethylphthalate	ug/L			0.2 (JB)						
Di-n-butylphthalate	ug/L	0.6 (JB)		0.4 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)		0.2 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
1,1,2,2-Tetrachloroethane	ug/L			0.3 (JB)						
2-Butanone	ug/L					4 (J)				
Chlorobenzene	ug/L	4 (J)								
cis-1,2-Dichloroethene	ug/L	0.8 (J)		0.6 (J)		1 (J)		.5 (J)		
Methylene chloride	ug/L	0.4 (J)		0.7 (J)		0.7 (J)		.5 (JB)	2 (JB)	
Toluene	ug/L			0.1 (J)						
Trichloroethene	ug/L	5		7		3 (J)			8	

Well ID: WVA-SA-MW-ESE-1

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	550		582				436	506	
Chloride	mg/L	27		95.2				8.0	16	
Conductivity	mohm/cm							1.32	1.42	
Dissolved Oxygen	mg/L	1.17		0.00		8.33		1.03	0.88	
DOC	mg/L	3.13		21		10		2.73		
DOC Average Quads	mg/L								8.2	
Ethene	ug/L			8.9				6.1		
Ferrous Iron	mg/L			0				0.0	0.14	
Methane	PPB	30000 (DE)								
Methane	ug/L			27300 (D)		4800		18000 (D)	3700 (D)	
Nitrate	mg/L	0.09		0.5				0.06	0.24	
Nitrite	mg/L	0.023		4				0.019	0.008	
pH		8.00		8.19		8.25		8.15	8.01	
Redox	mV	196		-168		-159		-192	-196	
Salinity								0.1		
Sulfate	mg/L			0				0.0	0	
Sulfide	mg/L			1				1		
TDS								0.8		
Temperature	C							12.83	11.46	
Turbidity	NTUs							63.5	1.4	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L			0.3 (JB)		0.4 (J)				
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	1 (JB)		0.3 (JB)		0.2 (J)				
Phenanthrene	ug/L					0.2 (J)				

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
cis-1,2-Dichloroethene	ug/L					1 (J)				
Methylene Chloride	ug/L	0.3 (J)		4 (J)		2 (J)				
Trichloroethene	ug/L					0.4 (J)				
Vinyl Chloride	ug/L					3				

Well ID: WVA-SA-MW-ESE-2

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	220		210				202	128	
Chloride	mg/L	387		402				423	358	
Conductivity	mohm/cm							1.73	2.07	
Dissolved Oxygen	mg/L	1.12		0.50		3.14		0.0	1.57	
DOC	mg/L	1.25		2.93		2.86		2.42		
DOC Average Quads	mg/L								0.4 (B)	
Ferrous Iron	mg/L	2.59		3.3				2.18	3.29	
Methane	PPB	850								
Methane	ug/L			1500		58		6.5	2.2	
Nitrate	mg/L	0.02		0				0.07	0.08	
Nitrite	mg/L	0.001		0				0.0	0.015	
pH		6.81		6.80		6.93		6.88	6.85	
Redox	mV	107		-78		-69		197	-97	
Salinity								0.1		
Sulfate	mg/L	26		21				31	32	
Sulfide	mg/L			1				1		
TDS								1.1		
Temperature	C							12.8	11.91	
Turbidity	NTUs							24.5	22.5	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzo(a)pyrene	ug/L			0.03 (J)						
bis(2-Ethylhexyl)phthalate	ug/L	1 (JB)		0.4 (JB)						
Butylbenzylphthalate	ug/L			0.1 (JB)						
Diethylphthalate	ug/L	0.3 (J)		0.1 (JB)						
Di-n-butylphthalate	ug/L	0.6 (JB)		0.1 (JB)						
Di-n-octylphthalate	ug/L			0.06 (JB)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Benzene	ug/L	4								
Carbon disulfide	ug/L								9	
Chloromethane	ug/L	.8 (J)								
Methylene chloride	ug/L	0.9 (J)		0.4 (J)		0.7 (J)			0.6 (J)	

Well ID: WVA-SA-MW-ESE-3

METHOD: NAT

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
Alkalinity	mg/L	199		3948				153	203	
Carbon Dioxide	PPB	4000								
Carbon Dioxide	ug/L			2500						
Chloride	mg/L	50		936				25	21	
Conductivity	mohm/cm							0.633	0.578	
Dissolved Oxygen	mg/L	0.22		1.55		0.00		1.45	1.18	
DOC	mg/L	1.75		6.81		2.29		2.24		
DOC Average Quads	mg/L								4.2	
Ferrous Iron	mg/L	3.3		3.2				3.30	1.9	
Methane	PPB	46								
Methane	ug/L			82.0				30	7.4	
Nitrate	mg/L	0.02		0.11				0.0	0	
Nitrite	mg/L	0.014		0.006				0.003	0.001	
pH		6.18		6.71		6.86		6.57	6.4	
Redox	mV	-55.4		-58		-80		-78	-94	
Salinity								0.0		
Sulfate	mg/L	46		57				47	57	
Sulfide	mg/L			1						
TDS								0.41		
Temperature	C							10.01	11.03	
Turbidity	NTUs							10.2	19.1	

METHOD: SVOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
bis(2-Ethylhexyl)phthalate	ug/L	0.4 (JB)		0.3 (JB)		0.08 (J)		.4 (JB)		
Diethylphthalate	ug/L	0.2 (JB)								
Di-n-butylphthalate	ug/L	1 (JB)						.1 (JB)		
Di-n-octylphthalate	ug/L			0.3 (J)						

METHOD: VOC

Analyte	Units	Aug-99	Sept-99	Apr-00	May-00	Oct-00	Apr-01	May-01	May-02	Nov-02
2-Butanone	ug/L			8 (J)		6 (J)				
4-Methyl-2-Pentanone	ug/L			5 (J)						
Chloromethane	ug/L					1 (J)				
Methylene Chloride	ug/L			4 (J)		1 (J)		.6 (J)		

Well ID: WVA-SA-MW-ESE-6

METHOD: *NAT*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	360		338				369	301	
Carbon Dioxide	PPB	3300								
Chloride	mg/L	47		20				45	15	
Conductivity	mohm/cm							0.754	0.729	
Dissolved Oxygen	mg/L	0.17		0.50		0.00		0.0	0.53	
DOC	mg/L	7.23		12.2		10.7		1		
DOC (Dup)	mg/L					11.5				
DOC Average Quads	mg/L								8.6	
Ferrous Iron	mg/L	0.62		2.5				3.3	2.26	
Methane	PPB	16000 (D)								
Methane	ug/L			12600		5200 (E)		6600	2500 (D)	
Methane (Dup)	ug/L					4500 (E)				
Nitrate	mg/L	0.03		0				0.14	0.07	
Nitrite	mg/L			0				0.0	0.004	
pH		6.50		7.10		7.19		7.11	6.51	
Redox	mV	-96.1		-72		-123		-129	-149	
Salinity								0.0		
Sulfate	mg/L			0				0.0	0	
Sulfide	mg/L			1				1		
TDS								0.49		
Temperature	C							12.35	11.28	
Turbidity	NTUs							0.0	1	

METHOD: *SVOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
bis(2-Ethylhexyl)phthalate	ug/L	1 (JB)		0.6 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Diethylphthalate	ug/L			0.1 (JB)						
Di-n-butylphthalate	ug/L	0.6 (JB)		0.2 (JB)						
Di-n-octylphthalate	ug/L			0.09 (JB)						

METHOD: *VOC*

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	2 (JB)		5 (JB)		6 (J)				
2-Butanone (Dup)	ug/L					6 (J)				
Benzene	ug/L	0.5 (J)								
Carbon Disulfide	ug/L					0.6 (J)				
Chlorobenzene	ug/L	0.6 (J)								
Chloromethane	ug/L	.5 (J)				0.9 (J)				
Chloromethane (Dup)	ug/L					1 (J)				
Methylene Chloride	ug/L	0.4 (J)		0.3 (J)		0.8 (J)				
Methylene Chloride (Dup)	ug/L					1 (J)				
Trichloroethene	ug/L	0.6 (J)								

Well ID: WVA-SA-MW-ESE-8

METHOD: NAT

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Alkalinity	mg/L	464.0		384				366	273	
Carbon Dioxide	ug/L			7300						
Carbon Dioxide	PPB	9000								
Carbon Dioxide (Dup)	ug/L			7800						
Chloride	mg/L	263.0		669				100	320	
Conductivity	mohm/cm							1.67	2.15	
Dissolved Oxygen	mg/L	1.80		1.40		5.04		5.30	2.29	
DOC	mg/L	7.66		6.27		11.3		11.1		
DOC (Dup)	mg/L			18.3						
DOC Average Quads	mg/L								6.4	
Ethane	PPB	130								
Ethane	ug/L			12.5		110		78 (D)		
Ethane (Dup)	ug/L			15.9						
Ethene	PPB	74								
Ethene	ug/L			26.1		56 (D)		29		
Ethene (Dup)	ug/L			30.2						
Ferrous Iron	mg/L	0.77		2				1.31	1.12	
Methane	ug/L			992		2800 (E)		3400 (D)	13	
Methane	PPB	7900 (D)								
Methane (Dup)	ug/L			1210						
Nitrate	mg/L	0.11		0				0.17	0.09	
Nitrite	mg/L	0.032		0				0.064	0.022	
pH		6.40		6.30		6.69		6.59	6.97	
Redox	mV	5.00		30		4.00		-27	-60	
Salinity								0.1		
Sulfate	mg/L	15.0		44				3.0		
Sulfide	mg/L					1		1		
TDS								1.1		
Temperature	C							15.15	11.8	
Turbidity	NTUs							5.7	14.2	

ell ID: WVA-SA-MW-ESE-8

METHOD: SVOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
Anthracene (Dup)	ug/L			0.04 (J)						
bis(2-Ethylhexyl)phthalate	ug/L	0.7 (JB)		0.3 (JB)		0.6 (JB)				
bis(2-Ethylhexyl)phthalate (Dup)	ug/L			0.2 (JB)						
Butylbenzylphthalate	ug/L			0.2 (JB)						
Butylbenzylphthalate (Dup)	ug/L			0.1 (JB)						
Diethylphthalate	ug/L	0.3 (JB)		0.08 (J)						
Diethylphthalate (Dup)	ug/L			0.1 (J)						
Di-n-butylphthalate	ug/L	2 (JB)		0.1 (JB)		0.2 (J)				
Di-n-butylphthalate (Dup)	ug/L			0.1 (JB)						
Di-n-octylphthalate	ug/L	0.1 (JB)		0.08 (J)						
Di-n-octylphthalate (Dup)	ug/L			0.07 (J)						
Fluoranthene (Dup)	ug/L			0.04 (J)						
Phenanthrene (Dup)	ug/L			0.03 (J)						
Pyrene (Dup)	ug/L			0.04 (J)						

METHOD: VOC

Analyte	*Units*	*Aug-99*	*Sept-99*	*Apr-00*	*May-00*	*Oct-00*	*Apr-01*	*May-01*	*May-02*	*Nov-02*
2-Butanone	ug/L	44 (JB)								
Chloroform	ug/L			3 (JB)						
Chloroform (Dup)	ug/L			5 (JB)						
cis-1,2-Dichloroethene	ug/L	3,100		850		4900		3900		
cis-1,2-Dichloroethene (Dup)	ug/L			810						
Dibromochloromethane	ug/L	9 (J)								
Methylene Chloride	ug/L	45 (J)		7 (JB)		93 (JB)		54 (JB)		
Methylene Chloride (Dup)	ug/L			14 (JB)						
Tetrachloroethene	ug/L	8 (JB)								
trans-1 2-Dichloroethene	ug/L								1 (J)	
trans-1,2-Dichloroethene	ug/L	11 (J)		5 (J)						
Trichloroethene	ug/L	9 (J)								
Vinyl chloride	ug/L	530		250		870		730	150	
Vinyl Chloride (Dup)	ug/L			240						