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Subject:  
2012 Groundwater Monitoring Report  
AVX Corporation, Myrtle Beach Facility  
801 17<sup>th</sup> Avenue South  
Horry County, Myrtle Beach, South Carolina  
SCD 062 690 557

Date:  
August 22, 2012

Dear Ms. Minsk:

On behalf of AVX Corporation, ARCADIS respectfully submits five copies of the 2012 *Groundwater Monitoring Report* for the above-referenced site. If you have any questions, please contact me at 724.742.9180, ext. 518.

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Respectfully,

ARCADIS

  
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Our ref:  
B0007394.0000

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Imagine the result

**AVX Corporation**

## **2012 Groundwater Monitoring Report**

Myrtle Beach, South Carolina

August 2012

**ARCADIS**

*M.B.H.*

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Mark B. Hanish  
Project Manager

*William B. Popham*

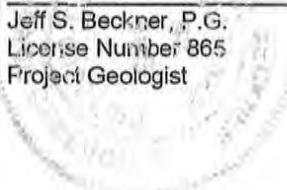
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**2012 Groundwater Monitoring  
Report**

Myrtle Beach, South Carolina

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<b>Acronyms and Abbreviations</b>	<b>ii</b>
<b>1. Introduction</b>	<b>1</b>
<b>2. Groundwater Monitoring Activities</b>	<b>2</b>
<b>3. Monitoring Results</b>	<b>3</b>
3.1    Site Hydrogeology	3
3.2    Groundwater Analytical Results	3
3.2.1    Upper Terrace Deposits	4
3.2.2    Lower Terrace Deposits	6
3.2.3    Peedee Formation	8
<b>4. Conclusions and Recommendations</b>	<b>9</b>
<b>5. References</b>	<b>11</b>

**Tables**

- |   |  |
|---|--|
| 1 | Summary of Monitoring Well and Pumping Well Water-Level Data |
| 2 | Detected Constituents in Groundwater                         |

**Figures**

- |    |  |
|----|--|
| 1A | Site Location Map  |
| 1B | Site Plan  |
| 2  | Potentiometric Surface – Upper Terrace Deposits – April 16, 2012 |
| 3  | Potentiometric Surface – Lower Terrace Deposits – April 16, 2012 |
| 4  | Detected VOCs in Upper Terrace Deposit Groundwater               |
| 5  | Detected VOCs in Lower Terrace Deposit Groundwater               |

**Appendices**

- |   |  |
|---|--|
| A | Groundwater Sampling Logs  |
| B | Chain of Custody Forms, Data Validation Results, and Laboratory Data Reports |

**Acronyms and Abbreviations**

AVX	AVX Corporation
cis-1,2-DCE	cis-1,2-dichloroethene
MCL	maximum contaminant level
OU-1	Operable Unit 1
OU-2	Operable Unit 2
PDB	passive diffusion bag
SCDHEC	South Carolina Department of Environmental Conservation
TCE	trichloroethene
µg/L	micrograms per liter
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound

## **1. Introduction**

On behalf of AVX Corporation (AVX), ARCADIS respectfully submits this 2012 *Groundwater Monitoring Report*, which describes the results of groundwater monitoring activities performed between April 16 and April 18, 2012 in Operable Unit 1 (OU-1) and Operable Unit 2 (OU-2) in the vicinity of the AVX facility located at 801 17<sup>th</sup> Avenue South in Horry County, Myrtle Beach, South Carolina (site) (Figure 1A). OU-1 is the onsite area, including the older portion of the operations and surrounding land (which has historically been referred to as the “site” area). OU-2 represents the offsite areas to the northeast of 17<sup>th</sup> Avenue South between OU-1 and Withers Swash.

The April 2012 groundwater sampling event included sampling of groundwater from groundwater monitoring wells within the site’s revised monitoring well network, as proposed in ARCADIS’ Proposed Groundwater Monitoring Well Network letter, dated May 21, 2008, and the South Carolina Department of Health and Environmental Control’s (SCDHEC’s) May 28, 2008 conditional approval. As requested by the SCDHEC in its March 13, 2012 letter titled *Supplementary Off-Site Groundwater Investigation Report dated December 31, 2011*, groundwater monitoring wells MW-108D and MW-111D were added to the monitoring well network to be sampled for the April 2012, and foreseeable future, groundwater monitoring events.

The purpose of the groundwater monitoring program is to evaluate the current status and historical trends of the groundwater hydraulics and groundwater quality to assess whether adjustments to the groundwater remedial actions or groundwater monitoring program should be considered.

## **2. Groundwater Monitoring Activities**

On April 16, 2012, ARCADIS personnel gauged the depth to groundwater in the monitoring and pumping wells, as documented in Table 1 (Figure 1B). Following gauging of the depth to groundwater within a broader set of OU-1 and OU-2 monitoring wells, groundwater was sampled on April 17 and April 18, 2012 from the approved groundwater monitoring well network.

In accordance with ARCADIS' May 21, 2008 letter to the SCDHEC, passive diffusion bag samplers (PDBs) were initially installed prior to groundwater sampling in 2008 and have been subsequently replaced, as needed. A PDB cannot be deployed in monitoring well MW-17D due to an apparent slight deviation in the well casing. Prior to the 2012 sampling event, PDBs were not installed in monitoring wells MW-108D, MW-111D, and DPW-3SD. At these four locations, a groundwater sample was collected using low-flow sampling techniques. In addition, a groundwater sample was collected from a sample port at pumping well DPW-4SD. Following sample collection, PDBs were deployed in MW-108D, MW-111, and DPW-3SD for use during future sampling events.

Field parameters (pH, specific conductance, and temperature) of the groundwater from each well were measured using a Horiba U-22 water quality meter with a down-hole probe after sampling. The field parameter data collected during this sampling event are included on the groundwater sampling logs in Appendix A.

All samples were logged on chain of custody forms (Appendix B) and placed in coolers on ice for preservation and shipped via overnight courier to SGS Laboratories, Inc., located in Wilmington, North Carolina. Samples were analyzed for volatile organic compounds (VOCs) by SW-846 Method 8260B. In addition, the groundwater sample data were validated as outlined in the data validation memorandum included in Appendix B.

### **3. Monitoring Results**

This section presents the results of the April 2012 groundwater monitoring event and also includes descriptions of site-specific hydrogeology and the identification and distribution of VOCs present in groundwater. VOCs detected in groundwater were compared to the applicable maximum contaminant levels (MCLs) developed by the United States Environmental Protection Agency (USEPA) and the SCDHEC.

#### **3.1 Site Hydrogeology**

Figure 2 illustrates the interpreted groundwater potentiometric surface within the Upper Terrace Deposits on April 16, 2012. Figure 3 illustrates the interpreted potentiometric surface within the Lower Terrace Deposits on April 16, 2012. Table 1 presents a summary of water-level data from 2002 through 2012.

As depicted on Figure 2, groundwater elevation data from monitoring wells within the Upper Terrace Deposits indicate that the primary groundwater gradient direction is predominantly toward the east. The influence due to pumping well DPW-4SD, screened within the Upper and Lower Terrace Deposits, is evident.

As depicted on Figure 3, groundwater elevation data from monitoring wells within the Lower Terrace Deposits indicated that the primary groundwater gradient direction, in locations outside the influence of pumping well DPW-4SD, is predominantly toward the northeast, towards the stormwater control pond along Withers Swash. Groundwater gradients within the OU-1 Lower Terrace Deposits appear to be strongly influenced by pumping at well DPW-4SD. The pronounced cone of depression surrounding pumping well DPW-4SD is consistent with that observed from interpretations of historical data.

#### **3.2 Groundwater Analytical Results**

Table 2 provides a summary of groundwater analytical data for samples collected from wells within the current and historical monitoring well networks for the last 10 years. For wells that have not been sampled in the last 10 years, data from the last sampling event is included. Where available, the SCDHEC or the USEPA MCLs are listed for each constituent in Table 2. Figures 4 and 5 illustrate the distribution of detected VOC concentrations in groundwater from the Upper and Lower Terrace Deposits, respectively, during this groundwater sampling event. Three prior years of historical data are also provided on Figures 4 and 5 to put the current data into context.

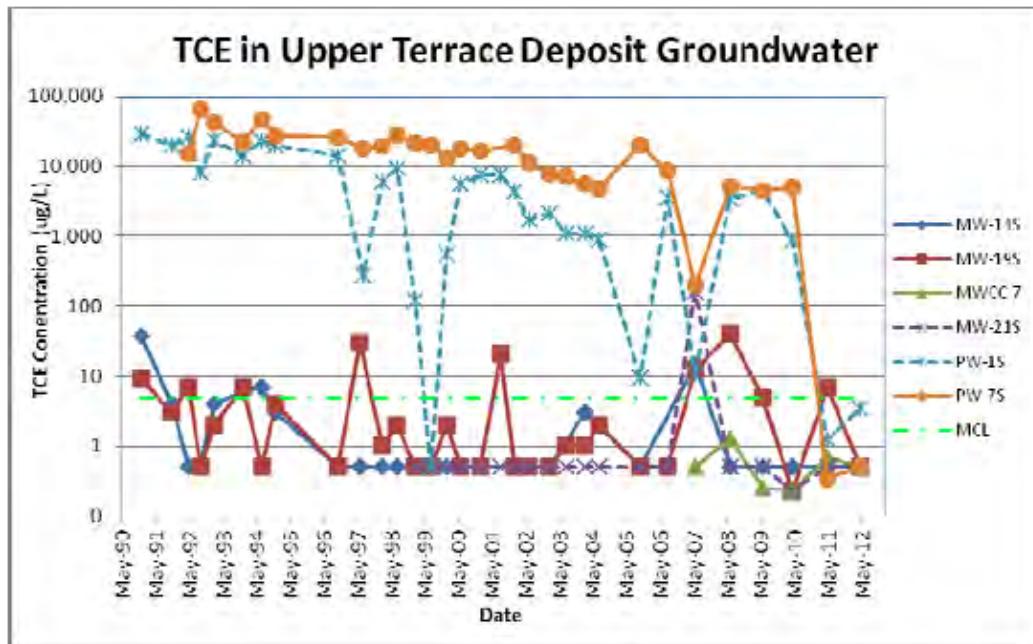
Trend graphs for the primary VOCs, trichloroethene (TCE), and degradation byproduct cis-1,2-dichloroethene (cis-1,2-DCE), are presented later herein. Reporting focuses on

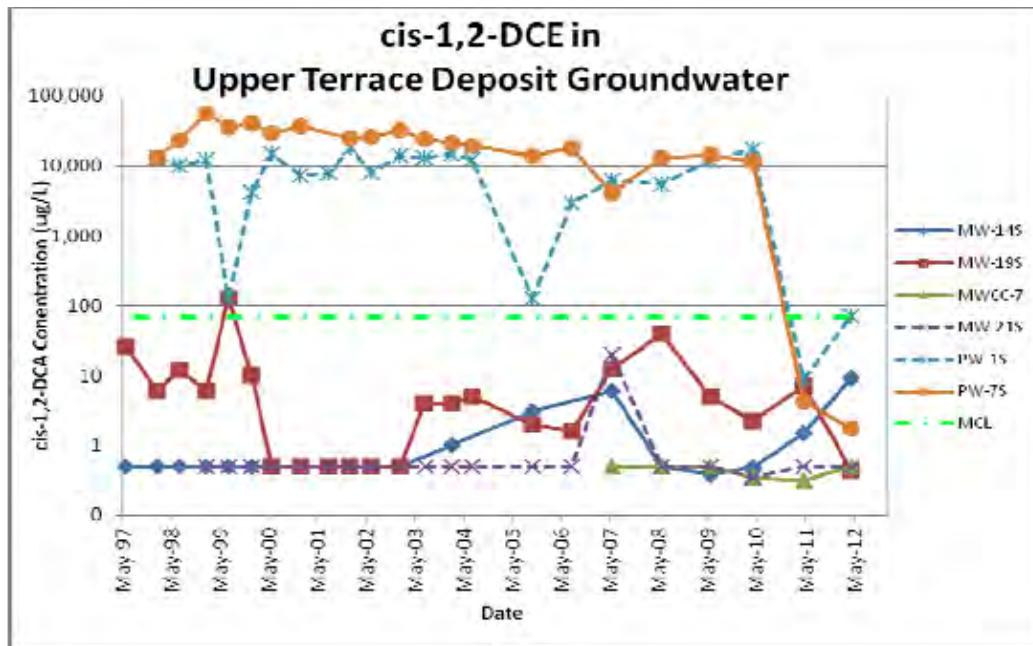
these two compounds because, consistent with the results of the previous monitoring and investigations, TCE and cis-1,2-DCE are detected most frequently and constitute nearly 100% of the chlorinated VOCs detected in groundwater.

The laboratory analytical reports and validation memoranda are provided in Appendix B. There were no significant data quality issues requiring data rejection, and data was found to be acceptable for use as reported and qualified, when necessary.

### 3.2.1 Upper Terrace Deposits

VOCs commonly detected in groundwater in monitoring wells within the Upper Terrace Deposits include TCE and degradation byproducts cis-1,2-DCE and vinyl chloride (VC). The following two graphs present concentration trend plots for TCE and cis-1,2-DCE detected in groundwater samples from the monitoring wells within the Upper Terrace Deposits.





Note: For non-detects, half of the respective detection limit was used as the concentration. If the detection limit is not known, a value of 1 microgram per liter ( $\mu\text{g/L}$ ) was used as the detection limit. Note that prior to October 1996, the 1,2-DCE geometric isomer reported by the laboratory was trans-1,2-DCE. For the purposes of graphing, the pre-October 1996 data for trans-1,2-DCE is plotted as cis-1,2-DCE.

Elevated concentrations of VOCs in groundwater in the Upper Terrace Deposits have historically been common within the western portion of OU-1, primarily in groundwater from pumping wells PW-1S and PW-7S. However, as noted in the *2011 Groundwater Monitoring Report* (ARCADIS, 2011), the extraction pumps were removed from pumping wells PW-1S and PW-7S prior to the 2011 sampling event. As depicted on Figure 4 and the two graphs above, a significant decrease in TCE and cis-1,2-DCE was observed at these two wells during both the 2011 and 2012 sampling events. This decrease in VOC concentrations after the pumps were removed from service indicates that the VOCs that were previously recovered at these wells were most likely pulled into the wells from a source area located east of the wells. VOCs from this potential source area are no longer within the capture zone of PW-1S and PW-7S because they are now being pulled to the southeast by extraction well DPW-4SD, which is screened across both the Upper and Lower Terrace Deposits.

Low concentrations of naphthalene and other aromatic hydrocarbons have been detected in several monitoring and pumping wells located on the westernmost portion of OU-1 since the inception of the monitoring program (Table 2). However, similar to the 2011 sampling results, only groundwater from monitoring well MW-19S indicated a detection of naphthalene. Furthermore, the concentration of naphthalene for

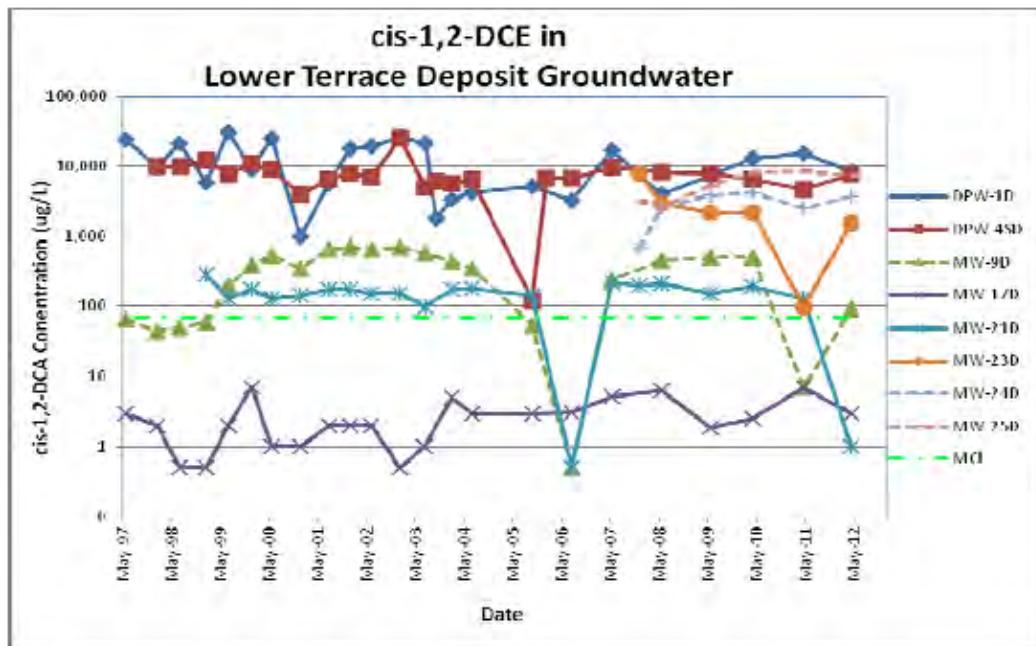
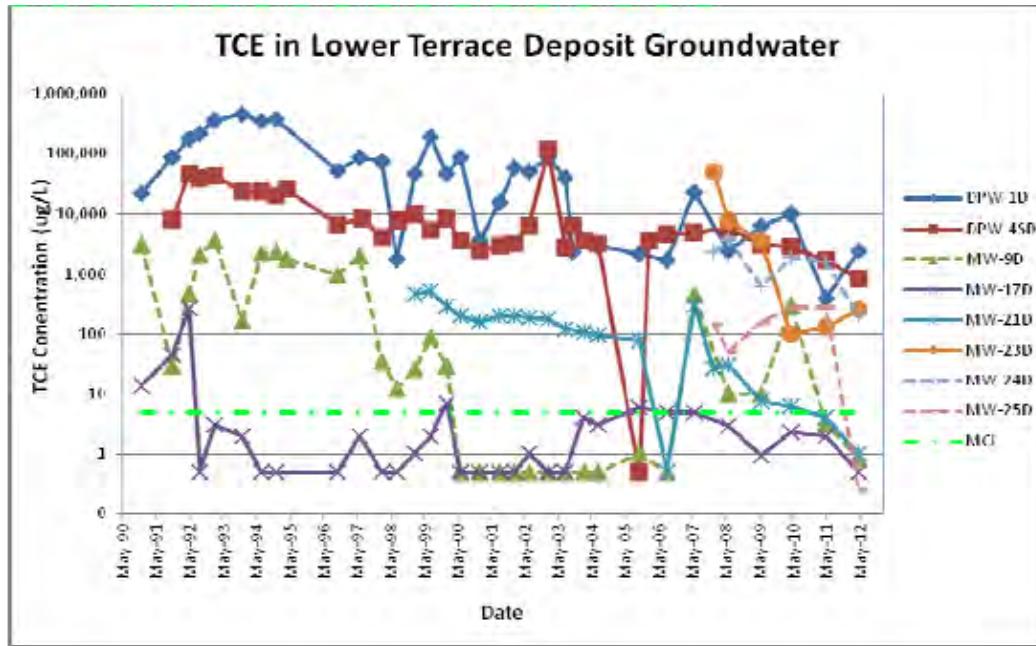
groundwater collected from MW-19S during the 2012 sampling event decreased significantly when compared to the result from the 2011 sampling event. As illustrated in the past, the limited and restricted occurrence of these constituents along the upgradient portion of the site suggests migration from offsite of the property upgradient of these wells.

The text figures also show that long-term concentration trends for TCE and cis-1,2-DCE in groundwater have been commonly stable to decreasing in groundwater from the wells within the monitoring well network within the Upper Terrace Deposits. Even for those locations where concentrations of VOCs in groundwater show greater fluctuation, a best fit trend line commonly shows an overall decreasing concentration trend. In addition, concentrations of VOCs in groundwater within several wells (MW-14S, MW-21S, and MWCC-7) within the Upper Terrace Deposits have remained relatively low to non-detectable.

### 3.2.2 Lower Terrace Deposits

As depicted on Figure 5, elevated concentrations of TCE in groundwater within the Lower Terrace Deposits appear to be localized to the southeastern corner of OU-1 and along a relatively narrow path within OU-2 to the northeast of 17<sup>th</sup> Avenue South. The apparent evidence of offsite attenuation of TCE and cis-1,2-DCE concentrations, particularly near 17<sup>th</sup> Avenue South in the area of monitoring well MW-21D, was again observed during the April 2012 sampling event.

The following two graphs present concentration trend plots for TCE and cis-1,2-DCE detected in sampled monitoring wells within the Lower Terrace Deposits.



Note: For non-detects, half of the respective detection limit was used as the concentration. If the detection limit is not known, a value of 1 µg/L was used as the detection limit. Note that prior to October 1996, the 1,2-DCE geometric isomer reported by the laboratory was trans-1,2-DCE. For the purposes of graphing, the pre-October 1996 data for trans-1,2-DCE is plotted as cis-1,2-DCE.

Long-term concentration trends of VOCs in groundwater, particularly TCE, have been relatively stable to decreasing in all Lower Terrace Deposit wells within the monitoring

well network. Concentrations of VOCs in groundwater have remained relatively low to non-detectable in monitoring well MW-17D. Concentrations of TCE at the eastern edge of the AVX property (at monitoring well MW-21D) continue to exhibit a long observed decreasing trend.

### 3.2.3 Peedee Formation

Groundwater was also sampled from two monitoring wells, MW-23DD and MW-25DD, whose screened intervals are completed within the Peedee Formation. As depicted on Figure 5, relatively small increases of VOCs observed in groundwater from Peedee Formation monitoring well MW-25DD during the April 2010 sampling event appear to have been an isolated occurrence. Subsequent concentrations of VOCs in groundwater samples collected from MW-25DD during the April 2011 and April 2012 sampling events have returned to the relatively low concentrations previously observed at this location.

The relatively elevated concentrations of VOCs in groundwater initially sampled from monitoring well MW-23DD in 2010 (ARCADIS, 2010) were still observed during the 2011 and 2012 sampling events. Specifically, the concentration of cis-1,2-DCE remains somewhat elevated; however, the concentration remains relatively low compared with the initial sampling in April 2010. Based on these results, the water quality in monitoring well MW-23DD will continue to be closely monitored as we expect to see some future beneficial effect of the ERD program following the installation and operation of the next set of injection wells to the northeast of monitoring well MW-23DD.

#### **4. Conclusions and Recommendations**

Data from the 2012 groundwater monitoring event suggests that concentrations of VOCs in groundwater remain largely stable or are decreasing within the Upper Terrace Deposits.

The groundwater hydraulic and quality data from the monitoring wells within the Lower Terrace Deposits provides evidence that groundwater flow and VOC transport is strongly influenced by groundwater pumping at pumping well DPW-4SD. The effect of groundwater extraction at pumping well DPW-4SD has been shown to extend at least as far to the northeast as the location of observation well OW-2D (a distance of over 750 feet as observed in the November 2008 tracer test), thereby causing a flattening of the gradient to the northeast of the site. In addition, concentrations of TCE in groundwater from monitoring wells MW-9D, MW-21D, DPW-1SD, and DPW-3SD have decreased substantially over the history of groundwater monitoring. Based on the above evidence, the groundwater recovery system continues to provide improvements to groundwater quality and maintains a broad area of groundwater capture.

Elevated concentrations of TCE and cis-1,2-DCE in groundwater in offsite monitoring wells MW-23D, MW-24D, and MW-25D suggest that VOCs in the vicinity of these wells have migrated outside the area of hydraulic influence of DPW-4SD. The elevated concentrations of TCE degradation byproducts, cis-1,2-DCE, and to a lesser extent, VC, indicates that TCE is naturally degrading. In addition, ERD pilot testing activities have also greatly reduced concentrations of VOCs in the vicinity of the pilot testing areas.

Concentrations of TCE in groundwater from monitoring well MW-23D have decreased significantly from historical concentrations. The cause of this decrease and the concurrent increase in concentrations of VOCs in groundwater from Peedee Formation monitoring well MW-23DD continue to be evaluated in light of ongoing pilot testing activities being performed and the data from the remedial pre-design investigation, which show much lower concentrations of VOCs in the deeper monitoring well MW-23DDD.

The groundwater treatment system and monitoring well network will continue to be evaluated in light of any new monitoring, investigation, or remedial action data, and recommendations will be made based on that information as appropriate. At this time, the following recommendations are offered:

- Continue operation of the groundwater extraction well DPW-4SD and the associated groundwater treatment system as its operation appears to be successful in capturing groundwater VOCs within OU-1 and portions of OU-2.
- Continue expansion of the ERD system and operation of that system to remediate groundwater in OU-2.
- Continue annual groundwater sampling of the current groundwater monitoring well network.

## **5. References**

ARCADIS. 2008. Proposed Groundwater Monitoring Well Network letter to the South Carolina Department of Health and Environmental Control. May 21.

ARCADIS. 2010. *2010 Groundwater Monitoring Report*. Myrtle Beach, South Carolina. July 23.

ARCADIS. 2011. *2011 Groundwater Monitoring Report*. Myrtle Beach, South Carolina.

South Carolina Department of Health and Environmental Control. 2008. Conditional Approval Letter of ARCADIS' Proposed Groundwater Monitoring Well Network letter, dated May 21, 2008. May 28.

**Tables**

**Table 1**  
Summary of Monitoring Well and Pumping Well Water-Level Data

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

Measuring Point I.D.	Ground Surface Elevation (ft amsl)	Reference Point (RP) Elevation (ft amsl)	January 7, 2002		June 17, 2002		January 20, 2003		July 22, 2003	
			Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)
MW-1S	20.50	20.49	5.91	14.58	4.65	15.84	3.35	17.14	2.74	17.75
MW-2S	19.00	18.55	6.41	12.14	7.35	11.20	4.33	14.22	4.03	14.52
MW-5S	19.50	19.30	6.09	13.21	7.18	12.12	3.88	15.42	3.70	15.60
MW-14S	20.50	20.18	5.51	14.67	6.48	13.70	3.34	16.84	3.42	16.76
MW-15S	20.80	20.42	8.10	12.32	8.81	11.61	5.77	14.65	5.62	14.80
MW-16S	20.00	19.53	8.10	11.43	8.58	10.95	5.91	13.62	5.41	14.12
MW-19S	19.00	18.34	6.12	12.22	6.79	11.55	3.92	14.42	3.75	14.59
MW-20S	19.00	18.18	7.56	10.62	8.38	9.80	5.27	12.91	4.92	13.26
MW-21S	20.50	20.35	11.25	9.10	11.93	8.42	9.41	10.94	8.44	11.91
MW-22S	19.32	18.98	NA	--	NA	--	NA	--	NA	--
MW-101S	21.01	20.55	NA	--	NA	--	NA	--	NA	--
MW-102S	21.70	21.45	NA	--	NA	--	NA	--	NA	--
MW-103S	22.03	21.65	NA	--	NA	--	NA	--	NA	--
MW-104S	21.05	20.81	NA	--	NA	--	NA	--	NA	--
MW-105S	19.71	19.25	NA	--	NA	--	NA	--	NA	--
MW-106S	NA	19.97	NA	--	NA	--	NA	--	NA	--
MW-7D	21.00	20.91	7.12	13.79	7.89	13.02	4.91	16.00	4.94	15.97
MW-8D	20.00	19.55	6.47	13.08	7.55	12.00	4.18	15.37	4.07	15.48
MW-9D	20.50	20.20	10.31	9.89	10.93	9.27	8.51	11.69	7.72	12.48
MW-10D	21.85	21.65	11.10	10.55	11.66	9.99	8.68	12.97	7.95	13.70
MW-11D	21.90	21.79	9.36	12.43	10.06	11.73	NA	--	7.47	14.32
MW-17D	20.00	19.47	7.02	12.45	7.74	11.73	4.81	14.66	4.82	14.65
MW-21D	20.50	20.16	11.14	9.02	11.82	8.34	9.33	10.83	8.54	11.62
MW-23D	20.47	20.17	NA	--	NA	--	NA	--	NA	--
MW-24D	18.17	17.99	NA	--	NA	--	NA	--	NA	--
MW-25D	12.93	12.62	NA	--	NA	--	NA	--	NA	--
MW-26D	23.68	23.23	NA	--	NA	--	NA	--	NA	--
MW-27D	19.49	19.11	NA	--	NA	--	NA	--	NA	--
MW-28D	24.05	23.23	NA	--	NA	--	NA	--	NA	--
MW-29D	18.11	17.69	NA	--	NA	--	NA	--	NA	--
MW-101D	20.97	20.68	NA	--	NA	--	NA	--	NA	--
MW-102D	21.73	21.27	NA	--	NA	--	NA	--	NA	--
MW-103D	22.03	21.65	NA	--	NA	--	NA	--	NA	--
MW-104D	20.94	20.60	NA	--	NA	--	NA	--	NA	--
MW-105D	19.75	19.51	NA	--	NA	--	NA	--	NA	--
MW-107D	18.83	21.53	NA	--	NA	--	NA	--	NA	--
MW-108D	17.67	20.03	NA	--	NA	--	NA	--	NA	--
MW-109D	19.42	21.98	NA	--	NA	--	NA	--	NA	--
MW-110D	18.58	18.55	NA	--	NA	--	NA	--	NA	--
MW-111D	21.09	20.91	NA	--	NA	--	NA	--	NA	--
DPW-1SD	20.50	20.23	15.18	5.05	16.03	4.20	12.76	7.47	12.03	8.20
DPW-2SD	21.00	20.69	13.18	7.51	13.91	6.78	10.99	9.70	10.21	10.48
DPW-3SD	19.00	18.23	9.55	8.68	10.23	8.00	7.74	10.49	6.99	11.24
DPW-4SD	20.50	20.24	17.53	2.71	18.43	1.81	14.62	5.62	13.93	6.31
MW-22DD	19.16	18.74	NA	--	NA	--	NA	--	NA	--
MW-23DD	20.56	20.10	NA	--	NA	--	NA	--	NA	--
MW-25DD	12.92	12.63	NA	--	NA	--	NA	--	NA	--
P-1D	20.02	19.65	NA	--	NA	--	NA	--	NA	--
P-2D	20.13	19.84	NA	--	NA	--	NA	--	NA	--
P-3D	19.29	18.95	NA	--	NA	--	NA	--	NA	--
P-4D	20.28	19.98	NA	--	NA	--	NA	--	NA	--
P-5D	19.61	19.27	NA	--	NA	--	NA	--	NA	--
PW-1S	19.00	18.82	12.45	6.37	14.98	3.84	15.27	3.55	13.61	5.21
PW-6S	20.00	19.18	7.95	11.23	8.57	10.61	5.60	13.58	5.16	14.02
PW-7S	19.00	18.49	14.85	3.64	14.84	3.65	13.27	5.22	12.77	5.72
SVE-1	18.33	20.71	NA	--	NA	--	NA	--	NA	--
<b>Injection Wells</b>										
IW-1D	20.75	20.23	NA	--	NA	--	NA	--	NA	--
IW-2D	19.65	19.45	NA	--	NA	--	NA	--	NA	--
IW-3D	19.90	19.65	NA	--	NA	--	NA	--	NA	--
IW-4D	20.20	19.90	NA	--	NA	--	NA	--	NA	--
IW-5D	20.54	20.19	NA	--	NA	--	NA	--	NA	--
IW-6D	20.25	19.60	NA	--	NA	--	NA	--	NA	--
<b>Observation Wells</b>										
OW-1D	20.67	20.40	NA	--	NA	--	NA	--	NA	--
OW-2D	20.77	20.55	NA	--	NA	--	NA	--	NA	--
OW-3D	20.87	20.67	NA	--	NA	--	NA	--	NA	--
OW-4D	20.77	20.52	NA	--	NA	--	NA	--	NA	--
OW-5D	20.67	20.43	NA	--	NA	--	NA	--	NA	--
OW-6D	20.65	20.35	NA	--	NA	--	NA	--	NA	--
OW-7D	20.05	19.71	NA	--	NA	--	NA	--	NA	--
OW-8D	19.95	19.66	NA	--	NA	--	NA	--	NA	--
OW-9D	20.26	20.03	NA	--	NA	--	NA	--	NA	--
OW-10D	20.00	19.69	NA	--	NA	--	NA	--	NA	--
<b>Carmike Wells</b>										
TW-1	NA	26.10	NA	--	NA	--	NA	--	NA	--
TW-2	NA	25.30	NA	--	NA	--	NA	--	NA	--
TW-3	NA	25.80	NA	--	NA	--	NA	--	NA	--
TW-4	NA	23.41	NA	--	NA	--	NA	--	NA	--
MWCC-5	NA	20.94	10.62	10.32	11.29	9.65	8.90	12.04	12.90	8.04
MWCC-6	NA	21.43	10.81	10.62	11.34	10.09	9.28	12.15	13.18	8.25
MWCC-7	NA	21.51	10.74	10.77	11.17	10.34	8.64	12.87	13.91	7.60
MWCC-8	NA	21.14	11.02	10.12	11.66	9.48	9.27	11.87	12.76	8.38

**Table 1**  
Summary of Monitoring Well and Pumping Well Water-Level Data

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

Measuring Point I.D.	Ground Surface Elevation (ft amsl)	Reference Point (RP) Elevation (ft amsl)	February 4, 2004		July 8, 2004		October 26, 2005	
			Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)
MW-1S	20.50	20.49	4.37	16.12	6.16	14.33	1.23	19.26
MW-2S	19.00	18.55	4.85	13.70	6.91	11.64	2.78	15.77
MW-5S	19.50	19.30	4.56	14.74	NA	--	NA	--
MW-14S	20.50	20.18	3.85	16.33	6.35	13.83	2.38	17.80
MW-15S	20.80	20.42	6.84	13.58	8.50	11.92	4.55	15.87
MW-16S	20.00	19.53	8.30	11.23	8.16	11.37	4.18	15.35
MW-19S	19.00	18.34	6.48	11.86	6.36	11.98	2.64	15.70
MW-20S	19.00	18.18	5.74	12.44	7.75	10.43	3.85	14.33
MW-21S	20.50	20.35	11.73	8.62	11.18	9.17	6.27	14.08
MW-22S	19.32	18.98	NA	--	NA	--	NA	--
MW-101S	21.01	20.55	NA	--	NA	--	NA	--
MW-102S	21.70	21.45	NA	--	NA	--	NA	--
MW-103S	22.03	21.65	NA	--	NA	--	NA	--
MW-104S	21.05	20.81	NA	--	NA	--	NA	--
MW-105S	19.71	19.25	NA	--	NA	--	NA	--
MW-106S	NA	19.97	NA	--	NA	--	NA	--
MW-7D	21.00	20.91	5.75	15.16	7.45	13.46	3.01	17.90
MW-8D	20.00	19.55	5.00	14.55	7.05	12.50	3.64	15.91
MW-9D	20.50	20.20	9.13	11.07	10.28	9.92	5.70	14.50
MW-10D	21.85	21.65	9.71	11.94	9.95	11.70	6.44	15.21
MW-11D	21.90	21.79	8.47	13.32	9.82	11.97	NA	--
MW-17D	20.00	19.47	5.74	13.73	7.49	11.98	3.20	16.27
MW-21D	20.50	20.16	10.01	10.15	11.11	9.05	6.31	13.85
MW-23D	20.47	20.17	NA	--	NA	--	NA	--
MW-24D	18.17	17.99	NA	--	NA	--	NA	--
MW-25D	12.93	12.62	NA	--	NA	--	NA	--
MW-26D	23.68	23.23	NA	--	NA	--	NA	--
MW-27D	19.49	19.11	NA	--	NA	--	NA	--
MW-28D	24.05	23.23	NA	--	NA	--	NA	--
MW-29D	18.11	17.69	NA	--	NA	--	NA	--
MW-101D	20.97	20.68	NA	--	NA	--	NA	--
MW-102D	21.73	21.27	NA	--	NA	--	NA	--
MW-103D	22.03	21.65	NA	--	NA	--	NA	--
MW-104D	20.94	20.60	NA	--	NA	--	NA	--
MW-105D	19.75	19.51	NA	--	NA	--	NA	--
MW-107D	18.83	21.53	NA	--	NA	--	NA	--
MW-108D	17.67	20.03	NA	--	NA	--	NA	--
MW-109D	19.42	21.98	NA	--	NA	--	NA	--
MW-110D	18.58	18.55	NA	--	NA	--	NA	--
MW-111D	21.09	20.91	NA	--	NA	--	NA	--
DPW-1SD	20.50	20.23	13.35	6.88	15.10	5.13	5.57	14.66
DPW-2SD	21.00	20.69	11.55	9.14	12.96	7.73	6.18	14.51
DPW-3SD	19.00	18.23	8.32	9.91	9.59	8.64	4.56	13.67
DPW-4SD	20.50	20.24	15.14	5.10	17.32	2.92	NA	--
MW-22DD	19.16	18.74	NA	--	NA	--	NA	--
MW-23DD	20.56	20.10	NA	--	NA	--	NA	--
MW-25DD	12.92	12.63	NA	--	NA	--	NA	--
P-1D	20.02	19.65	NA	--	NA	--	NA	--
P-2D	20.13	19.84	NA	--	NA	--	NA	--
P-3D	19.29	18.95	NA	--	NA	--	NA	--
P-4D	20.28	19.98	NA	--	NA	--	NA	--
P-5D	19.61	19.27	NA	--	NA	--	NA	--
PW-1S	19.00	18.82	11.15	7.67	15.31	3.51	12.80	6.02
PW-6S	20.00	19.18	6.35	12.83	7.95	11.23	3.97	15.21
PW-7S	19.00	18.49	14.17	4.32	13.48	5.01	11.00	7.49
SVE-1	18.33	20.71	NA	--	NA	--	NA	--
<b>Injection Wells</b>								
IW-1D	20.75	20.23	NA	--	NA	--	NA	--
IW-2D	19.65	19.45	NA	--	NA	--	NA	--
IW-3D	19.90	19.65	NA	--	NA	--	NA	--
IW-4D	20.20	19.90	NA	--	NA	--	NA	--
IW-5D	20.54	20.19	NA	--	NA	--	NA	--
IW-6D	20.25	19.60	NA	--	NA	--	NA	--
<b>Observation Wells</b>								
OW-1D	20.67	20.40	NA	--	NA	--	NA	--
OW-2D	20.77	20.55	NA	--	NA	--	NA	--
OW-3D	20.87	20.67	NA	--	NA	--	NA	--
OW-4D	20.77	20.52	NA	--	NA	--	NA	--
OW-5D	20.67	20.43	NA	--	NA	--	NA	--
OW-6D	20.65	20.35	NA	--	NA	--	NA	--
OW-7D	20.05	19.71	NA	--	NA	--	NA	--
OW-8D	19.95	19.66	NA	--	NA	--	NA	--
OW-9D	20.26	20.03	NA	--	NA	--	NA	--
OW-10D	20.00	19.69	NA	--	NA	--	NA	--
<b>Carmike Wells</b>								
TW-1	NA	26.10	NA	--	NA	--	NA	--
TW-2	NA	25.30	NA	--	NA	--	NA	--
TW-3	NA	25.80	NA	--	NA	--	NA	--
TW-4	NA	23.41	NA	--	NA	--	NA	--
MWCC-5	NA	20.94	10.94	10.00	10.29	10.65	14.10	6.84
MWCC-6	NA	21.43	11.81	9.62	10.50	10.93	NA	--
MWCC-7	NA	21.51	12.78	8.73	10.91	10.60	15.41	6.10
MWCC-8	NA	21.14	10.56	10.58	10.14	11.00	14.61	6.53

**Table 1**  
Summary of Monitoring Well and Pumping Well Water-Level Data

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

Measuring Point I.D.	Ground Surface Elevation (ft amsl)	Reference Point (RP) Elevation (ft amsl)	January 12, 2006		July 26, 2006		February 15, 2007 <sup>1</sup>	
			Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)
MW-1S	20.50	20.49	2.50	17.99	1.23	19.26	NA	--
MW-2S	19.00	18.55	3.02	15.53	5.60	12.95	NA	--
MW-5S	19.50	19.30	NA	--	NA	--	NA	--
MW-14S	20.50	20.18	2.11	18.07	3.44	16.74	NA	--
MW-15S	20.80	20.42	4.85	15.57	7.36	13.06	NA	--
MW-16S	20.00	19.53	4.37	15.16	6.77	12.76	NA	--
MW-19S	19.00	18.34	2.61	15.73	5.10	13.24	NA	--
MW-20S	19.00	18.18	3.70	14.48	NA	--	NA	--
MW-21S	20.50	20.35	7.02	13.33	9.55	10.80	NA	--
MW-22S	19.32	18.98	NA	--	NA	--	NA	--
MW-101S	21.01	20.55	NA	--	NA	--	NA	--
MW-102S	21.70	21.45	NA	--	NA	--	NA	--
MW-103S	22.03	21.65	NA	--	NA	--	NA	--
MW-104S	21.05	20.81	NA	--	NA	--	NA	--
MW-105S	19.71	19.25	NA	--	NA	--	NA	--
MW-106S	NA	19.97	NA	--	NA	--	NA	--
MW-7D	21.00	20.91	3.27	17.64	6.21	14.70	NA	--
MW-8D	20.00	19.55	3.51	16.04	5.81	13.74	4.13	15.42
MW-9D	20.50	20.20	6.48	13.72	8.87	11.33	6.77	13.43
MW-10D	21.85	21.65	7.16	14.49	9.49	12.16	7.45	14.20
MW-11D	21.90	21.79	NA	--	NA	--	6.56	15.23
MW-17D	20.00	19.47	3.34	16.13	6.30	13.17	3.75	15.72
MW-21D	20.50	20.16	7.34	12.82	9.77	10.39	7.53	12.63
MW-23D	20.47	20.17	NA	--	NA	--	NA	--
MW-24D	18.17	17.99	NA	--	NA	--	NA	--
MW-25D	12.93	12.62	NA	--	NA	--	NA	--
MW-26D	23.68	23.23	NA	--	NA	--	NA	--
MW-27D	19.49	19.11	NA	--	NA	--	NA	--
MW-28D	24.05	23.23	NA	--	NA	--	NA	--
MW-29D	18.11	17.69	NA	--	NA	--	NA	--
MW-101D	20.97	20.68	NA	--	NA	--	NA	--
MW-102D	21.73	21.27	NA	--	NA	--	NA	--
MW-103D	22.03	21.65	NA	--	NA	--	NA	--
MW-104D	20.94	20.60	NA	--	NA	--	NA	--
MW-105D	19.75	19.51	NA	--	NA	--	NA	--
MW-107D	18.83	21.53	NA	--	NA	--	NA	--
MW-108D	17.67	20.03	NA	--	NA	--	NA	--
MW-109D	19.42	21.98	NA	--	NA	--	NA	--
MW-110D	18.58	18.55	NA	--	NA	--	NA	--
MW-111D	21.09	20.91	NA	--	NA	--	NA	--
DPW-1SD	20.50	20.23	11.31	8.92	11.81	8.42	8.92	11.31
DPW-2SD	21.00	20.69	9.29	11.40	10.51	10.18	8.32	12.37
DPW-3SD	19.00	18.23	5.50	12.73	7.81	10.42	5.76	12.47
DPW-4SD	20.50	20.24	13.23	7.01	13.04	7.20	NA	--
MW-22DD	19.16	18.74	NA	--	NA	--	NA	--
MW-23DD	20.56	20.10	NA	--	NA	--	NA	--
MW-25DD	12.92	12.63	NA	--	NA	--	NA	--
P-1D	20.02	19.65	NA	--	NA	--	NA	--
P-2D	20.13	19.84	NA	--	NA	--	NA	--
P-3D	19.29	18.95	NA	--	NA	--	NA	--
P-4D	20.28	19.98	NA	--	NA	--	NA	--
P-5D	19.61	19.27	NA	--	NA	--	NA	--
PW-1S	19.00	18.82	14.51	4.31	NA	--	NA	--
PW-6S	20.00	19.18	3.95	15.23	6.60	12.58	NA	--
PW-7S	19.00	18.49	9.72	8.77	11.85	6.64	NA	--
SVE-1	18.33	20.71	NA	--	NA	--	NA	--
<b>Injection Wells</b>								
IW-1D	20.75	20.23	NA	--	NA	--	NA	--
IW-2D	19.65	19.45	NA	--	NA	--	NA	--
IW-3D	19.90	19.65	NA	--	NA	--	NA	--
IW-4D	20.20	19.90	NA	--	NA	--	NA	--
IW-5D	20.54	20.19	NA	--	NA	--	NA	--
IW-6D	20.25	19.60	NA	--	NA	--	NA	--
<b>Observation Wells</b>								
OW-1D	20.67	20.40	NA	--	NA	--	NA	--
OW-2D	20.77	20.55	NA	--	NA	--	NA	--
OW-3D	20.87	20.67	NA	--	NA	--	NA	--
OW-4D	20.77	20.52	NA	--	NA	--	NA	--
OW-5D	20.67	20.43	NA	--	NA	--	NA	--
OW-6D	20.65	20.35	NA	--	NA	--	NA	--
OW-7D	20.05	19.71	NA	--	NA	--	NA	--
OW-8D	19.95	19.66	NA	--	NA	--	NA	--
OW-9D	20.26	20.03	NA	--	NA	--	NA	--
OW-10D	20.00	19.69	NA	--	NA	--	NA	--
<b>Carmike Wells</b>								
TW-1	NA	26.10	NA	--	NA	--	NA	--
TW-2	NA	25.30	NA	--	NA	--	NA	--
TW-3	NA	25.80	NA	--	NA	--	NA	--
TW-4	NA	23.41	NA	--	NA	--	NA	--
MWCC-5	NA	20.94	14.37	6.57	11.95	8.99	NA	--
MWCC-6	NA	21.43	NA	--	NA	--	NA	--
MWCC-7	NA	21.51	15.14	6.37	12.90	8.61	NA	--
MWCC-8	NA	21.14	14.87	6.27	12.47	8.67	NA	--

**Table 1**  
Summary of Monitoring Well and Pumping Well Water-Level Data

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

Measuring Point I.D.	Ground Surface Elevation (ft amsl)	Reference Point (RP) Elevation (ft amsl)	March 9, 2007 <sup>1</sup>		May 21, 2007		May 27, 2008	
			Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)
MW-1S	20.50	20.49	NA	--	4.37	16.12	4.33	16.16
MW-2S	19.00	18.55	NA	--	5.79	12.76	6.43	12.12
MW-5S	19.50	19.30	NA	--	NA	--	NA	--
MW-14S	20.50	20.18	NA	--	5.50	14.68	6.30	13.88
MW-15S	20.80	20.42	NA	--	8.23	12.19	8.53	11.89
MW-16S	20.00	19.53	NA	--	6.91	12.62	7.31	12.22
MW-19S	19.00	18.34	NA	--	5.29	13.05	5.72	12.62
MW-20S	19.00	18.18	NA	--	NA	--	6.56	11.62
MW-21S	20.50	20.35	NA	--	9.93	10.42	10.84	9.51
MW-22S	19.32	18.98	NA	--	NA	--	NA	--
MW-101S	21.01	20.55	NA	--	NA	--	NA	--
MW-102S	21.70	21.45	NA	--	NA	--	NA	--
MW-103S	22.03	21.65	NA	--	NA	--	NA	--
MW-104S	21.05	20.81	NA	--	NA	--	NA	--
MW-105S	19.71	19.25	NA	--	NA	--	NA	--
MW-106S	NA	19.97	NA	--	NA	--	NA	--
MW-7D	21.00	20.91	NA	--	6.45	14.46	6.78	14.13
MW-8D	20.00	19.55	4.81	14.74	6.74	12.81	7.29	12.26
MW-9D	20.50	20.20	7.75	12.45	9.18	11.02	9.58	10.62
MW-10D	21.85	21.65	8.41	13.24	9.65	12.00	10.47	11.18
MW-11D	21.90	21.79	7.22	14.57	NA	--	NA	--
MW-17D	20.00	19.47	4.58	14.89	6.56	12.91	6.89	12.58
MW-21D	20.50	20.16	8.44	11.72	9.91	10.25	10.91	9.25
MW-23D	20.47	20.17	NA	--	NA	--	10.00	10.17
MW-24D	18.17	17.99	NA	--	NA	--	8.42	9.57
MW-25D	12.93	12.62	NA	--	NA	--	4.81	7.81
MW-26D	23.68	23.23	NA	--	NA	--	12.58	10.65
MW-27D	19.49	19.11	NA	--	NA	--	7.31	11.80
MW-28D	24.05	23.23	NA	--	NA	--	13.11	10.12
MW-29D	18.11	17.69	NA	--	NA	--	4.20	13.49
MW-101D	20.97	20.68	NA	--	NA	--	NA	--
MW-102D	21.73	21.27	NA	--	NA	--	NA	--
MW-103D	22.03	21.65	NA	--	NA	--	NA	--
MW-104D	20.94	20.60	NA	--	NA	--	NA	--
MW-105D	19.75	19.51	NA	--	NA	--	NA	--
MW-107D	18.83	21.53	NA	--	NA	--	NA	--
MW-108D	17.67	20.03	NA	--	NA	--	NA	--
MW-109D	19.42	21.98	NA	--	NA	--	NA	--
MW-110D	18.58	18.55	NA	--	NA	--	NA	--
MW-111D	21.09	20.91	NA	--	NA	--	NA	--
DPW-1SD	20.50	20.23	10.27	9.96	11.65	8.58	14.62	5.61
DPW-2SD	21.00	20.69	NA	--	10.83	9.86	12.85	7.84
DPW-3SD	19.00	18.23	6.69	11.54	8.18	10.05	8.78	9.45
DPW-4SD	20.50	20.24	NA	--	12.80	7.44	17.24	3.00
MW-22DD	19.16	18.74	NA	--	NA	--	NA	--
MW-23DD	20.56	20.10	NA	--	NA	--	NA	--
MW-25DD	12.92	12.63	NA	--	NA	--	NA	--
P-1D	20.02	19.65	NA	--	NA	--	NA	--
P-2D	20.13	19.84	NA	--	NA	--	NA	--
P-3D	19.29	18.95	NA	--	NA	--	NA	--
P-4D	20.28	19.98	NA	--	NA	--	NA	--
P-5D	19.61	19.27	NA	--	NA	--	NA	--
PW-1S	19.00	18.82	NA	--	NA	--	15.12	3.70
PW-6S	20.00	19.18	NA	--	6.50	12.68	6.88	12.30
PW-7S	19.00	18.49	NA	--	10.95	7.54	9.76	8.73
SVE-1	18.33	20.71	NA	--	NA	--	NA	--
<b>Injection Wells</b>								
IW-1D	20.75	20.23	NA	--	NA	--	NA	--
IW-2D	19.65	19.45	NA	--	NA	--	NA	--
IW-3D	19.90	19.65	NA	--	NA	--	NA	--
IW-4D	20.20	19.90	NA	--	NA	--	NA	--
IW-5D	20.54	20.19	NA	--	NA	--	NA	--
IW-6D	20.25	19.60	NA	--	NA	--	NA	--
<b>Observation Wells</b>								
OW-1D	20.67	20.40	NA	--	NA	--	NA	--
OW-2D	20.77	20.55	NA	--	NA	--	NA	--
OW-3D	20.87	20.67	NA	--	NA	--	NA	--
OW-4D	20.77	20.52	NA	--	NA	--	NA	--
OW-5D	20.67	20.43	NA	--	NA	--	NA	--
OW-6D	20.65	20.35	NA	--	NA	--	NA	--
OW-7D	20.05	19.71	NA	--	NA	--	NA	--
OW-8D	19.95	19.66	NA	--	NA	--	NA	--
OW-9D	20.26	20.03	NA	--	NA	--	NA	--
OW-10D	20.00	19.69	NA	--	NA	--	NA	--
<b>Carmike Wells</b>								
TW-1	NA	26.10	NA	--	NA	--	NA	--
TW-2	NA	25.30	NA	--	NA	--	NA	--
TW-3	NA	25.80	NA	--	NA	--	NA	--
TW-4	NA	23.41	NA	--	NA	--	NA	--
MWCC-5	NA	20.94	NA	--	10.26	10.68	10.97	9.97
MWCC-6	NA	21.43	NA	--	NA	--	NA	--
MWCC-7	NA	21.51	NA	--	9.85	11.66	10.68	10.83
MWCC-8	NA	21.14	NA	--	9.92	11.22	10.53	10.61

**Table 1**  
Summary of Monitoring Well and Pumping Well Water-Level Data

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

Measuring Point I.D.	Ground Surface Elevation (ft amsl)	Reference Point (RP) Elevation (ft amsl)	October 7, 2008		May 26, 2009		July 20-21, 2009	
			Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)
MW-1S	20.50	20.49	4.43	16.06	NA <sup>2</sup>	--	NA <sup>2</sup>	--
MW-2S	19.00	18.55	5.58	12.97	6.01	12.54	6.45	12.10
MW-5S	19.50	19.30	NA	--	NA	--	5.84	13.46
MW-14S	20.50	20.18	5.34	14.84	5.61	14.57	6.21	13.97
MW-15S	20.80	20.42	NA	--	8.38	12.04	8.73	11.69
MW-16S	20.00	19.53	6.90	12.63	6.55	12.98	7.47	12.06
MW-19S	19.00	18.34	NA	--	5.34	13.00	5.93	12.41
MW-20S	19.00	18.18	NA	--	6.20	11.98	6.48	11.70
MW-21S	20.50	20.35	10.20	10.15	10.44	9.91	10.94	9.41
MW-22S	19.32	18.98	8.85	10.13	NA	--	9.74	9.24
MW-101S	21.01	20.55	10.83	9.72	NA	--	11.71	8.84
MW-102S	21.70	21.45	10.00	11.45	NA	--	10.74	10.71
MW-103S	22.03	21.65	10.24	11.41	NA	--	9.87	11.78
MW-104S	21.05	20.81	9.30	11.51	NA	--	10.20	10.61
MW-105S	19.71	19.25	8.48	10.77	NA	--	9.16	10.09
MW-106S	NA	19.97	12.11	7.86	12.08	7.89	13.08	6.89
MW-7D	21.00	20.91	NA	--	NA	--	NA	--
MW-8D	20.00	19.55	6.58	12.97	6.80	12.75	7.40	12.15
MW-9D	20.50	20.20	9.29	10.91	9.61	10.59	10.15	10.05
MW-10D	21.85	21.65	9.47	12.18	10.55	11.10	11.20	10.45
MW-11D	21.90	21.79	NA	--	NA	--	9.60	12.19
MW-17D	20.00	19.47	6.38	13.09	6.76	12.71	7.43	12.04
MW-21D	20.50	20.16	10.01	10.15	10.35	9.81	10.89	9.27
MW-23D	20.47	20.17	9.28	10.89	9.66	10.51	9.97	10.20
MW-24D	18.17	17.99	7.80	10.19	8.22	9.77	NA	--
MW-25D	12.93	12.62	4.63	7.99	4.78	7.84	NA	--
MW-26D	23.68	23.23	NA	--	12.01	11.22	12.07	11.16
MW-27D	19.49	19.11	6.02	13.09	NA	--	6.93	12.18
MW-28D	24.05	23.23	12.19	11.04	NA	--	13.22	10.01
MW-29D	18.11	17.69	3.40	14.29	NA	--	4.67	13.02
MW-101D	20.97	20.68	10.36	10.32	NA	--	11.51	9.17
MW-102D	21.73	21.27	8.89	12.38	NA	--	9.91	11.36
MW-103D	22.03	21.65	9.01	12.64	NA	--	9.80	11.85
MW-104D	20.94	20.60	9.45	11.15	NA	--	10.21	10.39
MW-105D	19.75	19.51	8.22	11.29	NA	--	9.26	10.25
MW-107D	18.83	21.53	NA	--	NA	--	NA	--
MW-108D	17.67	20.03	NA	--	NA	--	NA	--
MW-109D	19.42	21.98	NA	--	NA	--	NA	--
MW-110D	18.58	18.55	NA	--	NA	--	NA	--
MW-111D	21.09	20.91	NA	--	NA	--	NA	--
DPW-1SD	20.50	20.23	14.14	6.09	14.06	6.17	15.61	4.62
DPW-2SD	21.00	20.69	11.91	8.78	11.96	8.73	12.79	7.90
DPW-3SD	19.00	18.23	8.51	9.72	8.78	9.45	9.18	9.05
DPW-4SD	20.50	20.24	17.69	2.55	14.60	5.64	17.35	2.89
MW-22DD	19.16	18.74	12.05	6.69	NA	--	9.12	9.62
MW-23DD	20.56	20.10	10.50	9.60	9.03	11.07	8.31	11.79
MW-25DD	12.92	12.63	10.40	2.23	3.29	9.34	NA	--
P-1D	20.02	19.65	8.65	11.00	NA	--	9.46	10.19
P-2D	20.13	19.84	8.84	11.00	NA	--	9.71	10.13
P-3D	19.29	18.95	8.81	10.14	NA	--	8.79	10.16
P-4D	20.28	19.98	9.00	10.98	NA	--	NA	--
P-5D	19.61	19.27	8.20	11.07	NA	--	8.94	10.33
PW-1S	19.00	18.82	7.82	11.00	9.97	8.85	NA	--
PW-6S	20.00	19.18	6.21	12.97	6.31	12.87	6.64	12.54
PW-7S	19.00	18.49	5.81	12.68	8.53	9.96	NA	--
SVE-1	18.33	20.71	NA	--	8.29	12.42	8.84	11.87
<b>Injection Wells</b>								
IW-1D	20.75	20.23	NA	--	NA	--	9.94	10.29
IW-2D	19.65	19.45	NA	--	NA	--	9.30	10.15
IW-3D	19.90	19.65	NA	--	NA	--	9.52	10.13
IW-4D	20.20	19.90	NA	--	NA	--	9.79	10.11
IW-5D	20.54	20.19	NA	--	NA	--	10.05	10.14
IW-6D	20.25	19.60	NA	--	NA	--	9.47	10.13
<b>Observation Wells</b>								
OW-1D	20.67	20.40	NA	--	NA	--	10.12	10.28
OW-2D	20.77	20.55	NA	--	NA	--	10.25	10.30
OW-3D	20.87	20.67	NA	--	NA	--	10.39	10.28
OW-4D	20.77	20.52	NA	--	NA	--	10.23	10.29
OW-5D	20.67	20.43	NA	--	NA	--	10.14	10.29
OW-6D	20.65	20.35	NA	--	NA	--	10.09	10.26
OW-7D	20.05	19.71	NA	--	NA	--	9.58	10.13
OW-8D	19.95	19.66	NA	--	NA	--	9.57	10.09
OW-9D	20.26	20.03	NA	--	NA	--	9.95	10.08
OW-10D	20.00	19.69	NA	--	NA	--	9.66	10.03
<b>Carmike Wells</b>								
TW-1	NA	26.10	NA	--	NA	--	NA	--
TW-2	NA	25.30	NA	--	NA	--	NA	--
TW-3	NA	25.80	NA	--	NA	--	NA	--
TW-4	NA	23.41	NA	--	NA	--	NA	--
MWCC-5	NA	20.94	10.57	10.37	10.49	10.45	NA	--
MWCC-6	NA	21.43	NA	--	NA	--	NA	--
MWCC-7	NA	21.51	12.27	9.24	9.89	11.62	NA	--
MWCC-8	NA	21.14	10.13	11.01	10.08	11.06	NA	--

**Table 1**  
Summary of Monitoring Well and Pumping Well Water-Level Data

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

Measuring Point I.D.	Ground Surface Elevation (ft amsl)	Reference Point (RP) Elevation (ft amsl)	April 14, 2010		April 25, 2011		April 16, 2012	
			Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)	Depth to Water from RP (ft)	Groundwater Elevation (ft amsl)
MW-1S	20.50	20.49	NA <sup>2</sup>	--	NA	--	NA	--
MW-2S	19.00	18.55	4.31	14.24	4.36	14.19	6.19	12.36
MW-5S	19.50	19.30	NA	--	4.66	14.64	6.77	12.53
MW-14S	20.50	20.18	3.93	16.25	4.27	15.91	6.30	13.88
MW-15S	20.80	20.42	7.40	13.02	7.37	13.05	8.48	11.94
MW-16S	20.00	19.53	5.55	13.98	5.41	14.12	7.05	12.48
MW-19S	19.00	18.34	3.71	14.63	3.67	14.67	5.70	12.64
MW-20S	19.00	18.18	4.61	13.57	3.84	14.34	5.79	12.39
MW-21S	20.50	20.35	7.46	12.89	9.12	11.23	9.51	10.84
MW-22S	19.32	18.98	7.82	11.16	7.93	11.05	8.26	10.72
MW-101S	21.01	20.55	9.69	10.86	9.77	10.78	10.11	10.44
MW-102S	21.70	21.45	8.88	12.57	9.06	12.39	10.18	11.27
MW-103S	22.03	21.65	7.76	13.89	8.71	12.94	9.88	11.77
MW-104S	21.05	20.81	6.79	14.02	8.33	12.48	9.34	11.47
MW-105S	19.71	19.25	6.43	12.82	7.58	11.67	8.06	11.19
MW-106S	NA	19.97	10.68	9.29	10.58	9.39	10.38	9.59
MW-7D	21.00	20.91	NA	--	NA	--	NA	--
MW-8D	20.00	19.55	5.11	14.44	5.70	13.85	7.61	11.94
MW-9D	20.50	20.20	NA	--	8.36	11.84	12.66	7.54
MW-10D	21.85	21.65	9.07	12.58	9.55	12.10	11.25	10.40
MW-11D	21.90	21.79	NA	--	7.85	13.94	9.51	12.28
MW-17D	20.00	19.47	4.91	14.56	5.52	13.95	7.42	12.05
MW-21D	20.50	20.16	7.15	13.01	NA	--	9.68	10.48
MW-23D	20.47	20.17	7.19	12.98	8.47	11.70	9.11	11.06
MW-24D	18.17	17.99	6.67	11.32	7.09	10.90	7.60	10.39
MW-25D	12.93	12.62	4.08	8.54	4.07	8.55	4.49	8.13
MW-26D	23.68	23.23	10.43	12.80	11.00	12.23	12.50	10.73
MW-27D	19.49	19.11	4.97	14.14	5.61	13.50	7.47	11.64
MW-28D	24.05	23.23	10.43	12.80	11.09	12.14	13.63	9.60
MW-29D	18.11	17.69	1.80	15.89	2.17	15.52	4.75	12.94
MW-101D	20.97	20.68	9.69	10.99	9.97	10.71	11.43	9.25
MW-102D	21.73	21.27	7.45	13.82	8.01	13.26	9.83	11.44
MW-103D	22.03	21.65	7.55	14.10	8.05	13.60	9.59	12.06
MW-104D	20.94	20.60	6.83	13.77	8.63	11.97	9.29	11.31
MW-105D	19.75	19.51	6.89	12.62	7.64	11.87	8.45	11.06
MW-107D	18.83	21.53	NA	--	NA	--	11.42	10.11
MW-108D	17.67	20.03	NA	--	NA	--	10.23	9.80
MW-109D	19.42	21.98	NA	--	NA	--	11.66	10.32
MW-110D	18.58	18.55	NA	--	NA	--	8.47	10.08
MW-111D	21.09	20.91	NA	--	NA	--	10.83	10.08
DPW-1SD	20.50	20.23	13.03	7.20	14.70	5.53	16.24	3.99
DPW-2SD	21.00	20.69	10.72	9.97	10.79	9.90	10.77	9.92
DPW-3SD	19.00	18.23	6.65	11.58	NA	--	8.51	9.72
DPW-4SD	20.50	20.24	14.70	5.54	NA	--	NA	--
MW-22DD	19.16	18.74	7.84	10.90	7.38	11.36	7.61	11.13
MW-23DD	20.56	20.10	7.31	12.79	7.45	12.65	9.66	10.44
MW-25DD	12.92	12.63	5.82	6.81	1.90	10.73	3.20	9.43
P-1D	20.02	19.65	NA	--	7.83	11.82	8.59	11.06
P-2D	20.13	19.84	4.20	15.64	8.22	11.62	8.27	11.57
P-3D	19.29	18.95	NA	--	7.08	11.87	7.35	11.60
P-4D	20.28	19.98	7.13	12.85	NA	--	9.03	10.95
P-5D	19.61	19.27	6.10	13.17	7.43	11.84	7.97	11.30
PW-1S	19.00	18.82	6.80	12.02	3.20	15.62	5.62	13.20
PW-6S	20.00	19.18	4.65	14.53	4.37	14.81	6.26	12.92
PW-7S	19.00	18.49	7.03	11.46	3.62	14.87	6.66	11.83
SVE-1	18.33	20.71	6.55	14.16	6.59	14.12	8.60	12.11
<b>Injection Wells</b>								
IW-1D	20.75	20.23	6.66	13.57	8.43	11.80	8.95	11.28
IW-2D	19.65	19.45	NA	--	7.55	11.90	NA	--
IW-3D	19.90	19.65	NA	--	7.95	11.70	NA	--
IW-4D	20.20	19.90	NA	--	8.40	11.50	NA	--
IW-5D	20.54	20.19	NA	--	8.73	11.46	NA	--
IW-6D	20.25	19.60	NA	--	NA	--	NA	--
<b>Observation Wells</b>								
OW-1D	20.67	20.40	6.90	13.50	8.61	11.79	9.10	11.30
OW-2D	20.77	20.55	7.12	13.43	8.74	11.81	9.28	11.27
OW-3D	20.87	20.67	7.24	13.43	8.89	11.78	9.47	11.20
OW-4D	20.77	20.52	6.95	13.57	8.75	11.77	9.26	11.26
OW-5D	20.67	20.43	6.76	13.67	8.65	11.78	9.11	11.32
OW-6D	20.65	20.35	6.73	13.62	8.59	11.76	9.02	11.33
OW-7D	20.05	19.71	2.50	17.21	8.05	11.66	7.81	11.90
OW-8D	19.95	19.66	4.30	15.36	8.02	11.64	8.09	11.57
OW-9D	20.26	20.03	4.90	15.13	8.46	11.57	8.61	11.42
OW-10D	20.00	19.69	4.90	14.79	8.11	11.58	8.33	11.36
<b>Carmike Wells</b>								
TW-1	NA	26.10	NA	--	NA	--	26.10	
TW-2	NA	25.30	NA	--	NA	--	25.30	
TW-3	NA	25.80	NA	--	NA	--	25.80	
TW-4	NA	23.41	NA	--	NA	--	23.41	
MWCC-5	NA	20.94	8.35	12.59	9.33	11.61	10.55	10.39
MWCC-6	NA	21.43	NA	--	9.68	11.75	10.89	10.54
MWCC-7	NA	21.51	7.86	13.65	8.27	13.24	9.91	11.60
MWCC-8	NA	21.14	8.16	12.98	8.92	12.22	10.27	10.87

**Table 1 (Notes)**  
**Summary of Monitoring Well and Pumping Well Water-Level Data**

**2012 Groundwater Monitoring Report**  
**AVX Corporation**  
**Myrtle Beach, South Carolina**

**Notes:**

1. This gauging event was conducted as part of the offsite groundwater investigation (ARCADIS, 2007).
2. MW-1S was abandoned between the 2008 and 2009 monitoring events.

P-1D through P-5D, MW-101S/D through MW-106S, MW-22S, and observation wells OW-1D through OW-6D were installed in the fall of 2008.

Observation wells OW-7D through OW-10D and injection wells IW-2D through IW-6D were installed in June 2009.

NA = not available

ft = feet

amsl = above mean sea level





Table 2  
Detected Constituents in Groundwater  
2012 Groundwater Monitoring Report  
AVX Corporation  
Myrtle Beach, South Carolina

Location ID: Date Collected:	USEPA/ SCDHEC MCL	Units	MW-15S										MW-16S											
			01/07/02	06/17/02	01/20/03	07/22/03	02/07/04	07/08/04	10/05/05	07/26/06	05/21/07	01/07/02	06/17/02	01/20/03	07/22/03	02/07/04	07/08/04	10/05/05	07/26/06	05/21/07				
<b>Detected Volatile Organics</b>																								
1,1,1-Trichloroethane	200	µg/L	ND	1.00 U	5.00	ND	ND	73.0	1.00 J	ND	5.00	ND	8.80 [1.00 U]											
1,1-Dichloroethane	--	µg/L	ND	11.0	8.00	14.0	9.00	99.0	11.0	12.0	5.00	1.80	14.0 [1.00 U]											
1,1,2-Dichloroethene	7	µg/L	ND	1.00 U	ND	ND	ND	ND	4.00	NA	ND	ND	ND	1.00 U [1.00 U]										
1,2,4-Trichlorobenzene	70	µg/L	ND	NA	NA	NA	NA	NA																
1,2,4-Trichloroethene	--	µg/L	ND	NA	NA	NA	NA	NA																
1,2-Dichloroethane	5	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
1,3,5-Trimethylbenzene	--	µg/L	ND	NA	NA	NA	NA	NA																
2-Butanone	--	µg/L	ND	10.0 U	ND	10.0 U [10.0 U]																		
2-Hexanone	--	µg/L	ND	10.0	ND	10.0 U [10.0 U]																		
Acetone	--	µg/L	ND	25.0 U	ND	25.0 U [25.0 U]																		
Benzene	5	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
Bromodichloromethane	81	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
Carbon Disulfide	--	µg/L	ND	2.00 U	ND	2.00 U [2.00 U]																		
Chlorobenzene	100	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
Chloroethane	--	µg/L	ND	1.00 U	ND	9.00	3.00	7.00	ND	ND	ND	ND	ND	1.00 U [1.00 U]										
Chloroform	86	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
Chloromethane	--	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
cis-1,2-Dichloroethene	70	µg/L	1,400	7,400	7,300	1,300	1,000	1,200	16.0	28.0	6.70	6.00	47.0	56.0	40.0	17.0	13.0	13.0 B	28.0	39.0 [5.20]				
Ethylbenzene	700	µg/L	ND	1.00	ND	1.00 U	ND	1.00 U [1.00 U]																
Isopropylbenzene	--	µg/L	NA	NA	NA	NA	NA																	
m,p-Xylene	--	µg/L	NA	NA	NA	NA	NA																	
Methylene Chloride	5	µg/L	ND	5.00 U	ND	5.00 U [5.00 U]																		
Naphthalene	--	µg/L	ND	NA	NA	NA	NA	NA																
n-Propylbenzene	--	µg/L	NA	NA	NA	NA	NA																	
o-Xylene	--	µg/L	NA	NA	NA	NA	NA																	
p-Isopropyltoluene	--	µg/L	NA	NA	NA	NA	NA																	
Styrene	100	µg/L	ND	0.500	ND	25.0 U	ND	ND	ND	ND	ND													
tert-Butylbenzene	--	µg/L	ND	NA	NA	NA	NA	NA																
Tetrachloroethene	5	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
Toluene	1,000	µg/L	ND	1.00	2.10	1.00 U	ND	1.00 U [1.00 U]																
trans-1,2-Dichloroethene	100	µg/L	ND	1.00 U	ND	1.00 U [1.00 U]																		
Trichloroethene	5	µg/L	ND	15.0	1.00 J	1.00 J	1.00 J	3.00	6.00	2.00 J	ND	1.00 J	2.30	1.90 [5.40]										
Vinyl Chloride	2	µg/L	2,000	1,500	6,600	1,100	690	560	37.0	160	10.0	ND	12.0	7.00	4.00	1.00 J	4.00	ND	3.10	5.00 [1.00 U]				
Xylenes (total)	10,000	µg/L	12.0 J	ND	2.00	ND	2.00 U [2.00 U]																	

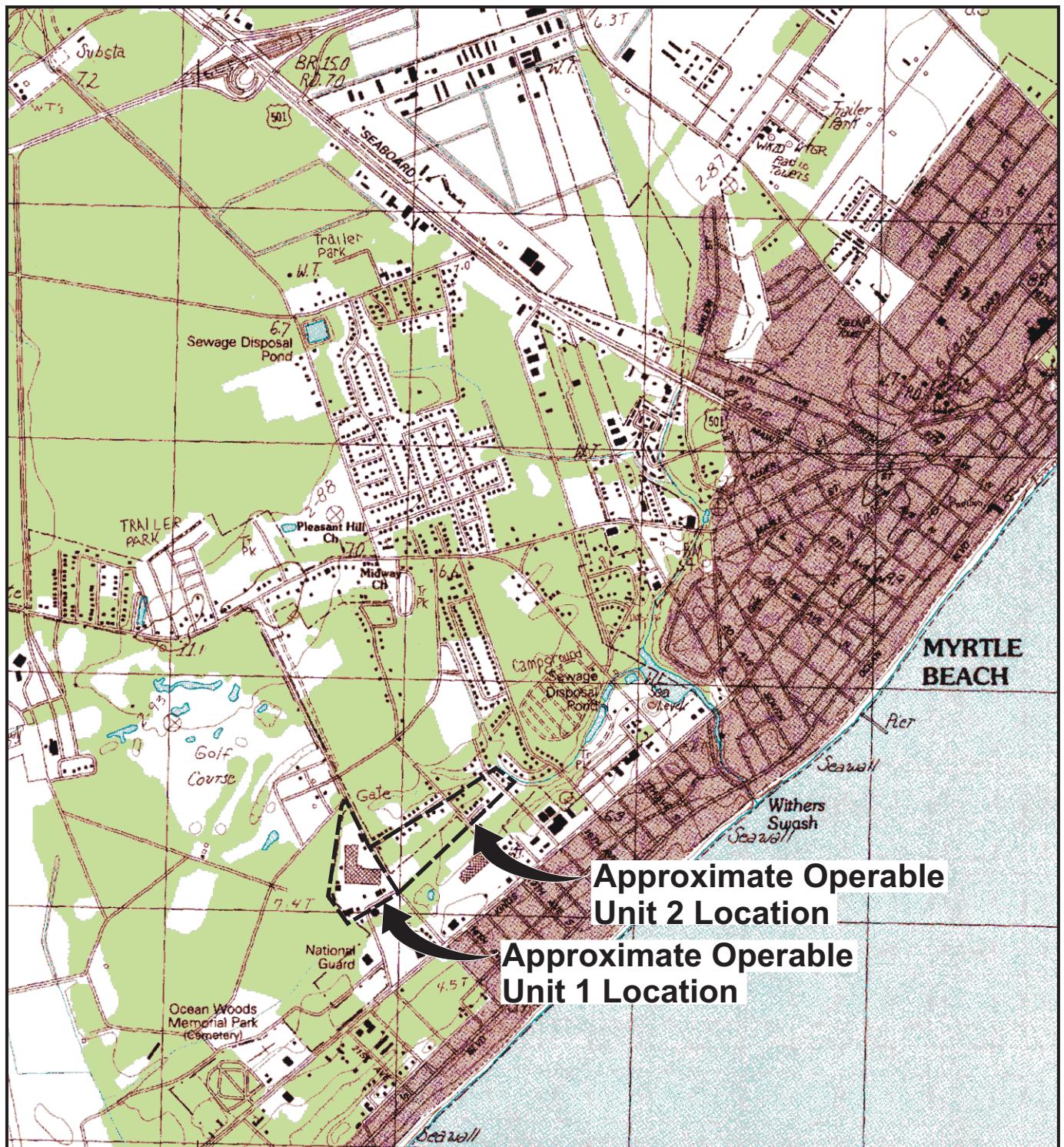
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Table 2  
Detected Constituents in Groundwater  
2012 Groundwater Monitoring Report  
AVX Corporation  
Myrtle Beach, South Carolina

Location ID: Date Collected:	USEPA/ SCDHEC MCL	Units	MW-24D												PW-1S												
			12/17/07	05/27/08	05/26/09	04/14/10	04/28/11	04/17/12	01/07/02	06/17/02	01/20/03	07/22/03	02/07/04	07/08/04	10/05/05	07/26/06	05/21/07	05/27/08	05/26/09	04/13/10	04/26/11	04/17/12					
<b>Detected Volatile Organics</b>																											
1,1,1-Trichloroethane	200	µg/L	100 U	200 U	200 U	0.0940 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
1,1-Dichloroethane	--	µg/L	100 U	200 U	200 U	1.80 J	100 U	100 U	350	120 J	80.0 J	93.0 J	380	400	1.00	27.0	32.0	400 U	400 U	400 U	400 U	0.540 J	2.92 J				
1,1-Dichloroethene	7	µg/L	100 U	200 U	200 U	<b>20.0</b>	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>36.0</b>	<b>25.0</b>	400 U	400 U	400 U	400 U	1.00 U	1.12 J	
1,2,4-Trichlorobenzene	70	µg/L	100 U	200 U	200 U	0.460 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
1,2,4-Trimethylbenzene	--	µg/L	100 U	200 U	200 U	0.340 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
1,2-Dichloroethane	5	µg/L	100 U	200 U	200 U	0.160 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
1,3,5-Trimethylbenzene	--	µg/L	100 U	200 U	200 U	0.180 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
2-Butanone	--	µg/L	2,500 U	5,000 U	5,000 U	1.70 U	2,500 U	2,500 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100 U	10,000 U	10,000 U	10,000 U	25.0 U	100 U			
2-Hexanone	--	µg/L	500 U	1,000 U	1,000 U	0.610 U	500 U	500 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100 U	2,000 U	2,000 U	2,000 U	5.00 U	20.0 U			
Acetone	--	µg/L	2,500 U	5,000 U	5,000 U	5.00 U	2,500 U	2,500 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250 U	10,000 U	10,000 U	10,000 U	25.0 U	100 U			
Benzene	5	µg/L	100 U	200 U	200 U	0.320 J	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	0.530 J	4.00 U			
Bromodichloromethane	81	µg/L	100 U	200 U	200 U	0.220 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
Carbon Disulfide	--	µg/L	100 U	200 U	200 U	0.410 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
Chlorobenzene	100	µg/L	100 U	200 U	200 U	0.110 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
Chloroethane	--	µg/L	100 U	200 U	200 U	0.390 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
Chloroform	86	µg/L	100 U	200 U	200 U	0.300 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
Chloromethane	--	µg/L	100 U	200 U	200 U	0.410 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
cis-1,2-Dichloroethene	70	µg/L	<b>674</b>	<b>2,620</b>	<b>3,880</b>	<b>4,200</b>	<b>2,930</b>	<b>3,670</b>	<b>18,000</b>	<b>8,100</b>	<b>14,000</b>	<b>13,000</b>	<b>15,000</b>	<b>12,000</b>	<b>130</b>	<b>2,900</b>	<b>6,100 D</b>	<b>5,370</b>	<b>11,900</b>	<b>17,400</b>	8.79	<b>71.0</b>					
Ethylbenzene	700	µg/L	100 U	200 U	200 U	0.190 U	100 U	100 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0 U	400 U	400 U	400 U	1.00 U	4.00 U			
Isopropylbenzene	--	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
m,p-Xylene	--	µg/L	200	400	400	0.250 U	200	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	800 U	800 U	2,000 U	8.00 U	2,000 U	8.00 U	1.00 U	4.00 U	
Methylene Chloride	5	µg/L	500 U	1,000 U	1,000 U	0.360 U	500 U	500 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50.0 U	2,000 U	2,000 U	2,000 U	5.00 U	8.40 B			
Naphthalene	--	µg/L	100	200	200	200	8.60	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
n-Propylbenzene	--	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
o-Xylene	--	µg/L	100	200	200	0.110 U	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
p-Isopropyltoluene	--	µg/L	100	200	200	0.260 U	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
Syrene	--	µg/L	100	200	200	0.260 U	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	400 U	400 U	400 U	400 U	1.00 U	4.00 U		
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethene	5	µg/L	<b>27.0</b>	<b>61.0</b>	<b>72.0</b>	<b>7.00</b>	<b>28.0</b>	ND	5.00	3.40	<b>66.0</b>	<b></b>															

**Figures**



REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., MYRTLE BEACH, SOUTH CAROLINA, PHOTOREVISED 1984.

2000' 0 2000'  
Approximate Scale: 1" = 2000'

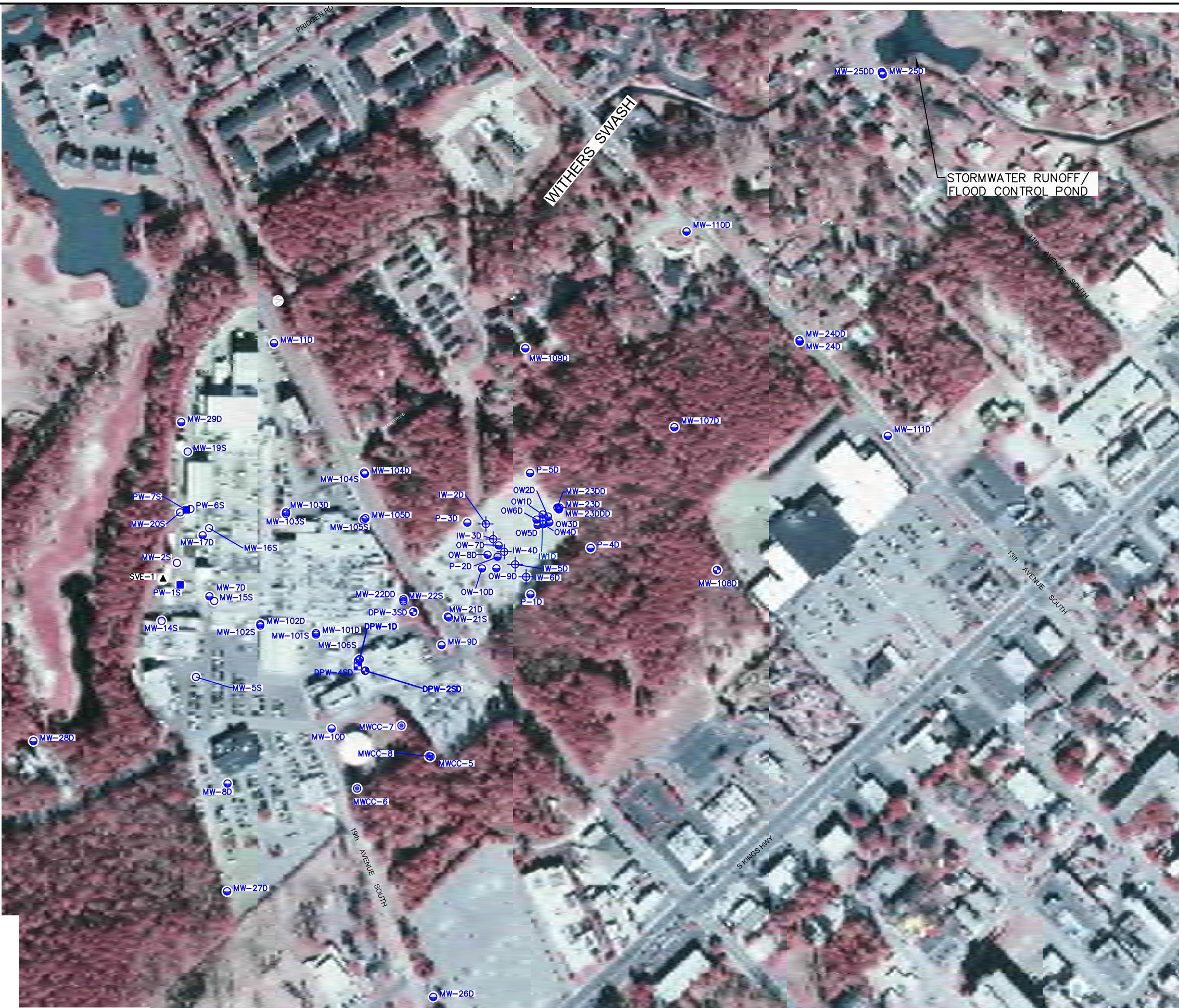


AVX CORPORATION  
MYRTLE BEACH FACILITY  
MYRTLE BEACH, SOUTH CAROLINA

#### SITE LOCATION MAP

 ARCADIS

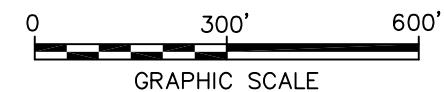
FIGURE  
**1A**



## **LEGEND:**

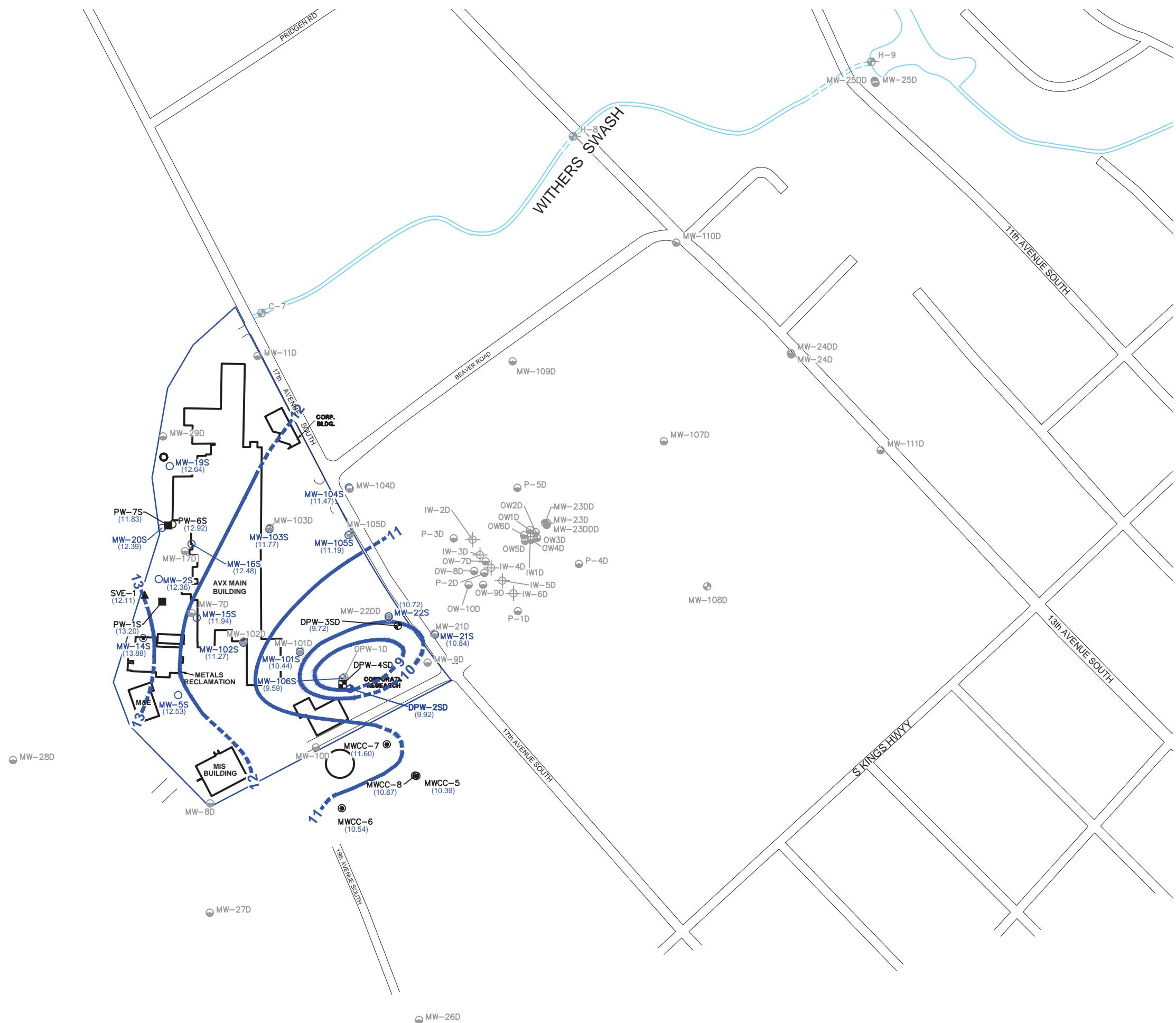
- LOCATION OF MONITORING WELL SCREENED IN THE UPPER TERRACE DEPOSITS
  - LOCATION OF MONITORING WELL SCREENED IN THE LOWER TERRACE DEPOSITS
  - LOCATION OF MONITORING WELL SCREENED IN THE PEEDEE FORMATION
  - LOCATION OF MONITORING WELL SCREENED IN THE UPPER & LOWER TERRACE DEPOSITS
  - LOCATIONS OF FORMER PUMPING WELL SCREENED IN THE UPPER TERRACE DEPOSITS
  - LOCATION OF PRODUCTION WELL SCREENED IN THE UPPER & LOWER TERRACE DEPOSITS
  - LOCATION OF INJECTION WELL SCREENED IN THE LOWER TERRACE DEPOSITS
  - CARMIKE WELL
  - ▲ LOCATION OF SOIL VAPOR EXTRACTION WELL  
(CURRENTLY USED FOR GROUNDWATER ELEVATION MONITORING)

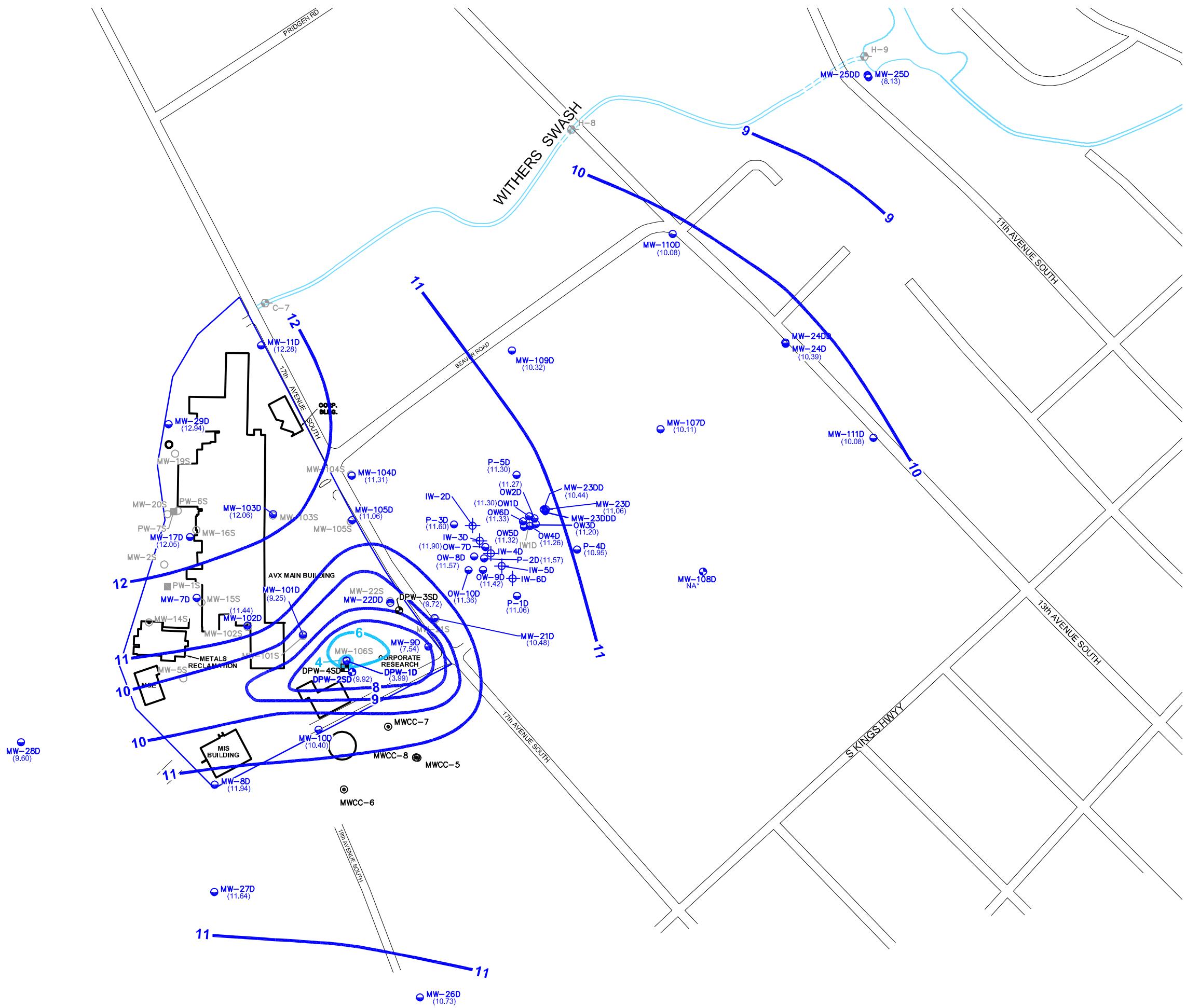
**NOTE:** AERIAL PHOTOGRAPH OBTAINED FROM THE SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES WEBSITE (2007).



AVX CORPORATION  
MYRTLE BEACH FACILITY  
MYRTLE BEACH, SOUTH CAROLINA  
**2012 GROUNDWATER MONITORING REPORT**

SITE PLAN





AVX CORPORATION  
MYRTLE BEACH FACILITY  
MYRTLE BEACH, SOUTH CAROLINA  
**2012 GROUNDWATER MONITORING REPORT**  
**POTENIOMETRIC SURFACE  
LOWER TERRACE DEPOSITS**  
APRIL 16, 2012

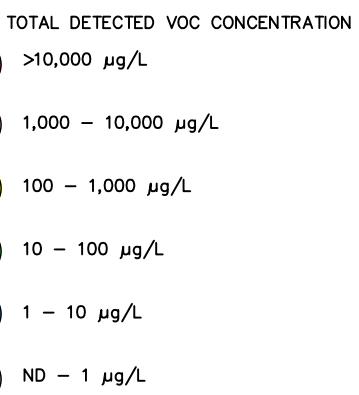
PW-1S				
Date	5/26/2009	4/13/2010	4/26/2011	4/17/2012
1,1-Dichloroethane	400 U	400 U	0.540 J	2.92 J
1,1-Dichloroethene	400 U	400 U	1.00 U	1.12 J
1,2,4-Trimethylbenzene	400 U	400 U	1.00 U	4.00 U
Acetone	10,000 U	10,000 U	25.0 U	100 U
Benzene	400 U	400 U	0.530 J	4.00 U
cis-1,2-Dichloroethene	<b>11,900</b>	<b>17,400</b>	8.79	<b>71.0</b>
Ethylbenzene	400 U	400 U	1.00 U	4.00 U
Isopropylbenzene	400 U	400 U	1.00 U	4.00 U
m-,p-Xylene	800 U	800 U	2.00 U	8.00 U
Methylene Chloride	2,000 U	2,000 U	5.00 U	0.840 J
Naphthalene	400 U	400 U	1.00 U	4.00 U
n-Propylbenzene	400 U	400 U	1.00 U	4.00 U
o-Xylene	400 U	400 U	1.00 U	4.00 U
tert-Butylbenzene	400 U	400 U	0.160 J	4.00 U
Toluene	400 U	400 U	1.00 U	4.00 U
trans-1,2-Dichloroethene	84.0 J	80.0 J	1.00 U	4.00 U
Trichloroethene	<b>4,560</b>	<b>872</b>	1.22	3.48 J
Vinyl Chloride	<b>456</b>	<b>688</b>	<b>10.3</b>	<b>68.6</b>
Total VOCs	17,000	19,000	21.5	147.96

MW-19S				
Date	5/26/2009	4/14/2010	4/28/2011	4/17/2012
1,1-Dichloroethane	10.0 U	0.290 U	16.0 U	0.310 J
1,1-Dichloroethene	10.0 U	0.300 U	16.0 U	1.00 U
1,2,4-Trimethylbenzene	10.0 U	0.340 U	16.0 U	1.00 U
Acetone	250 U	5.00 U	400 U	25.0 U
Benzene	10.0 U	4.20 J	4.16 J	0.250 J
cis-1,2-Dichloroethene	10.0 U	2.20 J	7.04 J	0.430 J
Ethylbenzene	2.20 J	1.30 J	3.20 J	1.00 U
Isopropylbenzene	10.0 U	0.190 U	16.0 U	1.00 U
m-,p-Xylene	20.0 U	0.750 J	32.0 U	2.00 U
Methylene Chloride	50.0 U	0.360 U	<b>5.76 J</b>	5.00 U
Naphthalene	208	330	181	0.860 J
n-Propylbenzene	10.0 U	0.230 U	16.0 U	1.00 U
o-Xylene	10.0 U	4.00 J	1.76 J	0.110 J
tert-Butylbenzene	10.0 U	0.240 U	16.0 U	1.00 U
Toluene	3.30 J	2.40 J	4.96 J	1.00 U
trans-1,2-Dichloroethene	10.0 U	0.430 U	16.0 U	1.00 U
Trichloroethene	10.0 U	0.230 U	<b>7.04 J</b>	1.00 U
Vinyl Chloride	10.0 U	0.380 U	16.0 U	1.00 U
Total VOCs	214	345	215	1.96

PW-7S				
Date	5/26/2009	4/13/2010	4/26/2011	4/17/2012
1,1-Dichloroethane	800 U	800 U	0.220 J	0.990 J
1,1-Dichloroethene	800 U	800 U	1.00 U	1.00 U
1,2,4-Trimethylbenzene	800 U	800 U	0.280 J	0.150 J
Acetone	20,000 U	20,000 U	25.0 U	25.0 U
Benzene	800 U	800 U	1.00 U	1.00 U
cis-1,2-Dichloroethene	<b>14,400</b>	<b>11,500</b>	4.2	1.73
Ethylbenzene	800 U	800 U	2.95	0.920 J
Isopropylbenzene	800 U	800 U	0.140 J	0.110 J
m-,p-Xylene	1,600 U	1,600 U	1.20 J	1.02 J
Methylene Chloride	4,000 U	4,000 U	5.00 U	5.00 U
Naphthalene	800 U	800 U	1.00 U	1.00 U
n-Propylbenzene	800 U	800 U	0.250 J	0.170 J
o-Xylene	800 U	800 U	2.51	0.470 J
tert-Butylbenzene	800 U	800 U	1.00 U	1.00 U
Toluene	800 U	144 J	0.900 J	1.00 U
trans-1,2-Dichloroethene	800 U	800 U	1.00 U	1.00 U
Trichloroethene	<b>4,570</b>	<b>5,020</b>	0.350 J	1.00 U
Vinyl Chloride	<b>1,060</b>	<b>1,070</b>	<b>5.11</b>	1.43
Total VOCs	20,000	17,700	18.1	6.99

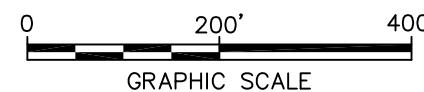
**LEGEND:**

- LOCATION OF MONITORING WELL SCREENED IN THE UPPER TERRACE DEPOSITS
  - LOCATION OF MONITORING WELL SCREENED IN THE LOWER TERRACE DEPOSITS
  - LOCATION OF MONITORING WELL SCREENED IN THE PEEDEE FORMATION
  - LOCATION OF MONITORING WELL SCREENED IN THE UPPER & LOWER TERRACE DEPOSITS
  - LOCATIONS OF FORMER PUMPING WELL SCREENED IN THE UPPER TERRACE DEPOSITS
  - LOCATION OF PRODUCTION WELL SCREENED IN THE UPPER & LOWER TERRACE DEPOSITS
  - LOCATION OF INJECTION WELL SCREENED IN THE LOWER TERRACE DEPOSITS
  - CARMIKE WELL
  - LOCATION OF SOIL VAPOR EXTRACTION WELL (CURRENTLY USED FOR GROUNDWATER ELEVATION MONITORING)



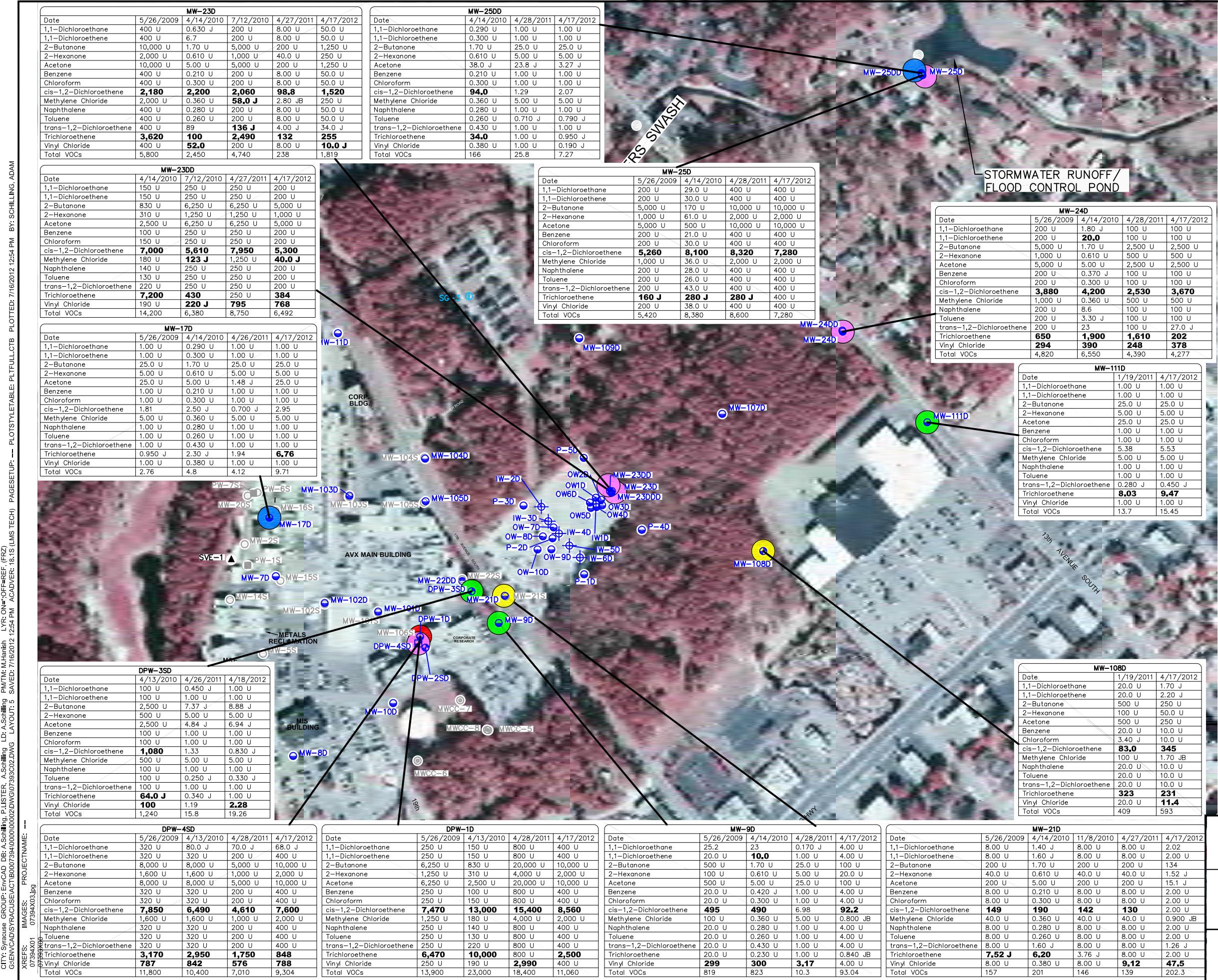
## **NOTES:**

1. AERIAL PHOTOGRAPH OBTAINED FROM THE SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES WEBSITE (2007).
  2. DATA PRESENTED IN MICROGRAMS PER LITER ( $\mu\text{g}/\text{L}$ ).
  3. VOC – VOLATILE ORGANIC COMPOUNDS
  4. BOLD VALUES INDICATE DETECTED CONCENTRATION EXCEEDS DRINKING WATER MAXIMUM CONTAMINANT LEVEL (MCL).
  5. J – INDICATES AN ESTIMATED VALUE.
  6. U – COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
  7. ND – VOCs WERE NOT DETECTED IN SAMPLE



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MYRTLE BEACH, SOUTH CAROLINA  
**2012 GROUNDWATER MONITORING REPORT**

# DETECTED VOCs IN UPPER TERRACE DEPOSIT GROUNDWATER





## **Appendix A**

Groundwater Sampling Logs



## In-Situ Groundwater Parameter Log

Client: AVX Myrtle Beach  
 Location: Myrtle Beach, SC  
 Location #: \_\_\_\_\_  
 Technician: R. Shealy

Project #: B0007393.0000.00005  
 City: Myrtle Beach  
 Instrument: YSI 556 MPS  
 Project Mngr: Mark Hanish

Date: 4/17/12  
 State: SC

WELL	TIME	DTW (ft b.m.p)	DO%	DO (mg/L)	REDOX (ORP) (mV)	pH	SC ( $\mu$ S/cm)	TEMP ( $^{\circ}$ C)
MW-19S	0900		3.3	0.30	-65.5	6.61	0.361	19.28
PW-7S	0918		8.5	0.81	-56.0	5.98	0.276	19.36
MW-2S	1035		5.5	0.50	34.3	5.66	0.174	18.55
MWCC-7	1108		18.1	1.69	25.3	4.96	0.179	18.68
MW-24D	1251		31.4	2.97	-16.5	6.52	0.469	18.16
MW-25DD	1307		19.0	1.76	-15.8	10.87	1.444	18.75
MW-25D	1315		25.6	2.44	13.0	9.21	0.435	18.98
MW-23D	1442		52.1	4.69	-12.9	7.66	0.183	20.53
MW-23DD	1451		54.2	4.90	10.5	7.35	0.797	20.27
MW-21S	1509		3.2	0.31	41.7	6.50	0.203	19.59
MW-21D	1517		2.0	0.18	-87.5	6.64	1.001	19.84
PW-1S	1548		2.2	0.21	-103.9	6.77	0.578	19.20
MW-14S	1602		3.6	0.34	-32.5	6.40	0.724	17.65
DPW-1P	1653	16.24	30.1	2.62	-30.0	7.03	0.815	20.98
MW-9D	1705		15.8	1.45	-35.9	7.01	0.636	19.29
DPW4SD	1728		54.1	4.74	-48.8	7.09	0.907	21.78
DPW-3SD	4/18/12		8.51					

NOTES:

Bailed water  
to get PP?

From Sample  
Port





 ARCADIS  
Groundwater Sample Log

Project No. B0007393.0000.00005

Well ID MW-108D

Page 1 of 1

4/17/12

Sunny 77°

Project Name/Location	AVX / Myrtle Beach			Weather	Sunny 77°
Measuring Pt.	Screen	Casing	Diameter (in)	Well Material	<input checked="" type="checkbox"/> PVC
Description	Setting (ft b.m.p.)		2		<input type="checkbox"/> SS <input type="checkbox"/> Other
Total Depth (ft-b.m.p.)	Static Water Level (ft-b.m.p.)	10.26	Water Column in Well	Gallons in Well	
Calc Gallons Purged	Pump Intake (ft-b.m.p.)	35' b.g.	Purge Method:	Sample Method	Low Flow
Gallons Purged	MP Elevation		Bladder		
Sample Time: Label	Replicate/ Code No		Submersible		
			Disp. Bailer	Pump On/Off	1344
			Peristaltic <input checked="" type="checkbox"/>	Sampled by	R. Shealy

## Well Information

Well Location: See Map Well Locked at Arrival: Yes / No  
Condition of Well: OK Well Locked at Departure: Yes / No  
Well Completion: Flush Mount / Stick Up Key Number To Well:

NOTES: Installed PDB after sampling  
Used 1/4" OD LDPE tubing to sample water

### Well Casing Volumes

Gallons/Foot	$1'' = 0.04$	$1.5'' = 0.09$	$2.5'' = 0.26$	$3.5'' = 0.60$	$6'' = 1.47$
	$1.25'' = 0.06$	$2'' = 0.16$	$3'' = 0.37$	$4'' = 0.65$	







# Instrument Calibration Log

Project Name: AVX Myrtle Beach

Date: 4/17/12

Project Number: B0007393.0000.00005

Calibrating Personnel: Robby Shealy

Time of Calibration: 0815

Weather Conditions: Sunny 65°

Barometric Pressure: 30.2 inches Hg  $\times 25.4 =$  767.08 mm Hg

CALIBRANT	INSTRUMENT	INITIAL READING	VALUE ENTERED	FINAL READING	TIME	TEMP °C
pH 10.0	<u>451 556mPS</u>		10.0			
pH 7.00		<u>7.30</u>	7.0	<u>7.0</u>	<u>0825</u>	<u>21.19</u>
pH 4.01		<u>3.85</u>	4.0	<u>4.0</u>	<u>0830</u>	<u>21.31</u>
Conductivity (mS/cm)		<u>1,443</u>	<u>1,413</u>	<u>1,413</u>	<u>0834</u>	<u>22.26</u>
DO (mg/L)		<u>9.26</u>		<u>8.59</u>	<u>0855</u>	<u>23.37</u>
DO%						
ORP (mV)		<u>238.1</u>	<u>240</u>	<u>240</u>	<u>0840</u>	<u>21.81</u>

Notes: 451 did not come with pH 10 calibration solution



## **Appendix B**

Chain of Custody Forms, Data  
Validation Results, and Laboratory  
Data Report

**MEMO**To:  
Mark HanishCopies:  
Project File (B007394)From:  
JoAnn Edgar/Keith StangDate:  
May 22 , 2012ARCADIS Project No.:  
B007394Subject:  
Level 2 Validation April 2012  
Groundwater Samples (SGS Environmental Project Nos. 31201139 and 31201159 )  
AVX Myrtle Beach, SC Site

---

The referenced Level 2 data packages (31201139 and 31201159) for the AVX Myrtle Beach, SC Site were validated based on available QA/QC data including surrogates, laboratory control samples (LCS), method and trip blanks. Raw QC data or sample data were not available for review. Quantitation checks were not possible. The following observations were made:

- Methylene chloride was detected in the method blank of data package 31201159 and the trip blank of data package 31201139. Result from sample DPW-35D in data package 31201159 was non-detect; therefore no qualification action was necessary. In data package 31201139, the results in samples MW-108D, MW-21D and PW-1S were less than 10X the blank concentration for methylene chloride and were qualified, "B" due to possible blank contamination.
- Tetrachloroethene was detected in the trip blank of data package 31201139. The result in sample MW-9D was less than 10X the blank concentration for methylene chloride and was qualified, "B" due to possible blank contamination.
- The MS for bromochloromethane in data package 31201139 was above control limits. No qualification was necessary on this alone, as the LCS and LCSD were within control limits.
- The MS and MSD for cis-1,2-dichloroethene were outside of control limits. No qualification was necessary on this alone, as the LCS and LCSD were within control limits.

- The LCSD and the RPD between the LCS and LCSD were outside of control limits. Associated sample results were qualified as estimated, "J/UJ".

All other QC issues were within limits. There were no significant data quality issues requiring data rejection. Data should be acceptable for use as reported.

jle

## Laboratory Report of Analysis

To: Mark Hanish  
ARCADIS  
One Adams Place  
310 Seven Fields Blvd.  
Seven Fields, PA 10604

Report Number: 31201139

Client Project: AVX MB

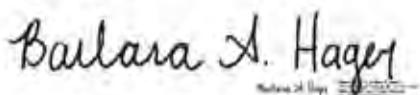
Dear Mark Hanish,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Barbara A. Hager at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.



Barbara A. Hager  
2012.04.30 15:06:05 -05'00'

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Barbara A. Hager  
Project Manager  
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Date

## Results of Trip Blank

Client Sample ID: Trip Blank  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139020-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 00:00  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/25/2012 11:50
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/25/2012 11:50
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/25/2012 11:50
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/25/2012 11:50
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/25/2012 11:50
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/25/2012 11:50
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/25/2012 11:50
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 11:50
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/25/2012 11:50
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/25/2012 11:50
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/25/2012 11:50
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/25/2012 11:50
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/25/2012 11:50
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/25/2012 11:50
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/25/2012 11:50
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/25/2012 11:50
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 11:50
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/25/2012 11:50
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/25/2012 11:50
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/25/2012 11:50
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/25/2012 11:50
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/25/2012 11:50
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/25/2012 11:50
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/25/2012 11:50
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/25/2012 11:50
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 11:50
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/25/2012 11:50
Acetone	ND	U	0.864	25.0	ug/L	1	04/25/2012 11:50
Benzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 11:50
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 11:50
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/25/2012 11:50
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/25/2012 11:50
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/25/2012 11:50
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/25/2012 11:50
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 11:50
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/25/2012 11:50
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/25/2012 11:50
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/25/2012 11:50
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/25/2012 11:50
Chloroform	ND	U	0.139	1.00	ug/L	1	04/25/2012 11:50
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/25/2012 11:50
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/25/2012 11:50
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/25/2012 11:50

Print Date: 04/30/2012

N.C. Certification # 481

**Results of Trip Blank**

Client Sample ID: Trip Blank  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139020-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 00:00  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/25/2012 11:50
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/25/2012 11:50
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/25/2012 11:50
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/25/2012 11:50
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/25/2012 11:50
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/25/2012 11:50
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/25/2012 11:50
Methyl Iodide	ND	U	0.115	1.00	ug/L	1	04/25/2012 11:50
Methylene chloride	0.220	J	0.152	5.00	ug/L	1	04/25/2012 11:50
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 11:50
Styrene	ND	U	0.102	1.00	ug/L	1	04/25/2012 11:50
Tetrachloroethene	0.170	J	0.155	1.00	ug/L	1	04/25/2012 11:50
Toluene	ND	U	0.133	1.00	ug/L	1	04/25/2012 11:50
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/25/2012 11:50
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/25/2012 11:50
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	04/25/2012 11:50
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1	04/25/2012 11:50
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/25/2012 11:50
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 11:50
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/25/2012 11:50
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/25/2012 11:50
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/25/2012 11:50
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 11:50
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/25/2012 11:50
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/25/2012 11:50

**Surrogates**

1,2-Dichloroethane-d4	97.0	64.0-140	%	1	04/25/2012 11:50
4-Bromofluorobenzene	98.0	85.0-115	%	1	04/25/2012 11:50
Toluene d8	99.0	82.0-117	%	1	04/25/2012 11:50

**Batch Information**

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 11:50

Prep Batch: VXX3212  
 Prep Method: SW-IM6 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Prep Batch: VXX3205

Prep Date: 04/24/2012 08:20

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 22862 [VXX/3205]	67946	04/24/2012 09:34	VMS2145	MSD3	BWS
LCSD for HBN 22862 [VXX/3205]	67947	04/24/2012 09:59	VMS2145	MSD3	BWS
MB for HBN 22862 [VXX/3205]	67948	04/24/2012 11:13	VMS2145	MSD3	BWS
PW-7S	31201139002	04/24/2012 16:35	VMS2145	MSD3	BWS
MW-17D	31201139003	04/24/2012 17:00	VMS2145	MSD3	BWS
MWCC-7	31201139005	04/24/2012 17:25	VMS2145	MSD3	BWS
MW-111D	31201139006	04/24/2012 17:49	VMS2145	MSD3	BWS
MW-2S	31201139004	04/24/2012 18:39	VMS2145	MSD3	BWS
MW-24D	31201139007	04/24/2012 19:04	VMS2145	MSD3	BWS
RF-03S MS	31201144004	04/24/2012 19:54	VMS2145	MSD3	BWS
RF-03S MSD	31201144005	04/24/2012 20:18	VMS2145	MSD3	BWS

**Method Blank**

Blank ID: MB for HBN 22862 [VXX/3205]

Matrix: Water

Blank Lab ID: 67948

QC for Samples:

31201139002, 31201139003, 31201139004, 31201139005, 31201139006, 31201139007

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1
Chloromethane	ND	U	0.448	1.00	ug/L	1
Vinyl chloride	ND	U	0.124	1.00	ug/L	1
Bromomethane	ND	U	0.237	1.00	ug/L	1
Chloroethane	ND	U	0.311	1.00	ug/L	1
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1
Acetone	ND	U	0.864	25.0	ug/L	1
Methylene chloride	ND	U	0.152	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1
2-Butanone	ND	U	0.723	25.0	ug/L	1
Bromochloromethane	ND	U	0.211	1.00	ug/L	1
Chloroform	ND	U	0.139	1.00	ug/L	1
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1
Benzene	ND	U	0.113	1.00	ug/L	1
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1
Trichloroethene	ND	U	0.125	1.00	ug/L	1
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1
Dibromomethane	ND	U	0.168	1.00	ug/L	1
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1
Toluene	ND	U	0.133	1.00	ug/L	1
Methyl iodide	ND	U	0.115	1.00	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1
Carbon disulfide	ND	U	0.106	1.00	ug/L	1
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1
2-Hexanone	ND	U	0.728	5.00	ug/L	1
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1
Chlorobenzene	ND	U	0.116	1.00	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1

Print Date: 04/30/2012

N.C. Certification # A8

**Method Blank**

Blank ID: MB for HBN 22862 [VXX/3205]

Matrix: Water

Blank Lab ID: 67948

QC for Samples:

31201139002, 31201139003, 31201139004, 31201139005, 31201139006, 31201139007

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DE</u>
Bromoform	ND	U	0.0974	1.00	ug/L	1
Bromobenzene	ND	U	0.110	1.00	ug/L	1
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1
m,p-Xylene	ND	U	0.182	2.00	ug/L	1
Styrene	ND	U	0.102	1.00	ug/L	1
o-Xylene	ND	U	0.0874	1.00	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1
Naphthalene	ND	U	0.0855	1.00	ug/L	1
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	92.0			64.0-140	%	1
Toluene d8	104			82.0-117	%	1
4-Bromofluorobenzene	102			85.0-115	%	1

**Batch Information**

Analytical Batch: VMS2145

Prep Batch: VXX3205

Analytical Method: SW-846 B260B

Prep Method: SW-846 5030B

Instrument: MSD3

Prep Date/Time: 4/24/2012 8:20:40AM

Analyst: BWS

Prep Initial Wt./Vol.: 40 mL

Analytical Date/Time: 4/24/2012 11:13:00AM

Prep Extract Vol: 40 mL

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22862 [VXX/3205]

Blank Spike Lab ID: 67946

Date Analyzed: 04/24/2012 09:34

Spike Duplicate ID: LCSD for HBN 22862 [VXX/3205]

Spike Duplicate Lab ID: 67947

Date Analyzed: 04/24/2012 09:59

Matrix: Water

QC for Samples: 31201139002, 31201139003, 31201139004, 31201139005, 31201139006, 31201139007

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Dichlorodifluoromethane	5.00	5.34	107	5.00	5.39	108	33.0-170	0.93	30.00
Chloromethane	5.00	5.04	101	5.00	5.08	102	57.0-132	0.79	30.00
Vinyl chloride	5.00	4.83	97	5.00	4.66	93	59.0-138	3.6	30.00
Bromomethane	5.00	4.12	82	5.00	3.89	78	61.0-134	5.7	30.00
Chloroethane	5.00	5.19	104	5.00	5.21	104	64.0-145	0.38	30.00
Trichlorofluoromethane	5.00	4.85	97	5.00	4.79	96	64.0-133	1.2	30.00
1,1-Dichloroethene	5.00	4.98	100	5.00	5.09	102	71.0-128	2.2	30.00
Acetone	25.0	19.0	76	25.0	18.3	73	52.0-140	3.8	30.00
Methylene chloride	5.00	5.34	107	5.00	5.19	104	70.0-113	2.8	30.00
trans-1,2-Dichloroethene	5.00	5.55	111	5.00	5.41	108	57.0-138	2.6	30.00
tert-Butyl methyl ether (MTBE)	5.00	4.93	99	5.00	4.72	94	47.0-142	4.4	30.00
1,1-Dichloroethane	5.00	5.49	110	5.00	5.13	103	58.0-133	6.8	30.00
Diisopropyl Ether	5.00	4.82	96	5.00	4.76	95	68.0-132	1.3	30.00
2,2-Dichloropropane	5.00	4.96	119	5.00	5.87	117	74.0-125	1.5	30.00
cis-1,2-Dichloroethene	5.00	5.45	109	5.00	5.22	104	73.0-128	4.3	30.00
2-Butanone	25.0	19.1	76	25.0	18.4	74	58.0-134	3.7	30.00
Bromochloromethane	5.00	5.80	116	5.00	5.42	108	73.0-128	6.8	30.00
Chloroform	5.00	5.38	108	5.00	5.25	105	74.0-124	2.4	30.00
1,1,1-Trichloroethane	5.00	5.45	109	5.00	5.37	107	76.0-119	1.5	30.00
Carbon tetrachloride	5.00	5.72	114	5.00	5.49	110	75.0-120	4.1	30.00
1,1-Dichloropropene	5.00	5.21	104	5.00	5.23	105	76.0-124	0.38	30.00
Benzene	5.00	5.46	109	5.00	5.24	105	76.0-124	4.1	30.00
1,2-Dichloroethane	5.00	5.29	106	5.00	4.92	98	76.0-119	7.2	30.00
Trichloroethene	5.00	5.10	102	5.00	5.16	103	74.0-121	1.2	30.00
1,2-Dichloropropane	5.00	5.26	105	5.00	5.11	102	74.0-124	2.9	30.00
Dibromomethane	5.00	5.33	107	5.00	5.11	102	71.0-128	4.2	30.00
Bromodichloromethane	5.00	5.62	112	5.00	5.31	106	72.0-120	5.7	30.00
cis-1,3-Dichloropropene	5.00	5.77	115	5.00	5.31	106	73.0-122	8.3	30.00
4-Methyl-2-pentanone	25.0	21.9	88	25.0	20.2	81	65.0-124	8.1	30.00
Toluene	5.00	5.59	112	5.00	5.32	106	75.0-123	4.9	30.00
Methyl iodide	5.00	3.94	79	5.00	3.88	78	55.0-123	1.5	30.00
trans-1,3-Dichloropropene	5.00	5.21	104	5.00	5.08	102	70.0-125	2.5	30.00
Carbon disulfide	5.00	5.08	102	5.00	4.79	96	65.0-132	5.9	30.00
1,1,2-Trichloroethane	5.00	5.51	110	5.00	5.13	103	76.0-121	7.1	30.00

Print Date: 04/30/2012

N.C. Certification #481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22862 [VXX/3205]  
 Blank Spike Lab ID: 67946  
 Date Analyzed: 04/24/2012 09:34

Spike Duplicate ID: LCSD for HBN 22862 [VXX/3205]  
 Spike Duplicate Lab ID: 67947  
 Date Analyzed: 04/24/2012 09:59  
 Matrix: Water

QC for Samples: 31201139002, 31201139003, 31201139004, 31201139005, 31201139006, 31201139007

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	5.00	5.11	102	5.00	5.09	102	59.0-112	0.39	30.00
1,3-Dichloropropane	5.00	4.88	98	5.00	4.62	92	74.0-120	5.5	30.00
2-Hexanone	25.0	16.7	67	25.0	16.7	67	56.0-133	0.0	30.00
Dibromochloromethane	5.00	5.08	102	5.00	5.32	106	87.0-122	4.6	30.00
1,2-Dibromoethane	5.00	4.78	95	5.00	4.84	93	74.0-119	2.6	30.00
Chlorobenzene	5.00	4.95	99	5.00	4.78	96	74.0-120	3.5	30.00
1,1,1,2-Tetrachloroethane	5.00	5.01	100	5.00	5.04	101	73.0-119	0.60	30.00
Bromoform	5.00	5.04	101	5.00	5.60	112	62.0-127	11	30.00
Bromobenzene	5.00	4.92	98	5.00	4.83	97	75.0-120	1.8	30.00
1,1,2,2-Tetrachloroethane	5.00	4.88	98	5.00	4.88	98	68.0-129	0.0	30.00
1,2,3-Trichloropropane	5.00	4.63	91	5.00	4.40	88	67.0-128	2.9	30.00
Ethyl Benzene	5.00	4.69	94	5.00	4.59	92	76.0-123	2.2	30.00
m,p-Xylene	10.0	9.48	95	10.0	9.19	92	76.0-124	3.1	30.00
Styrene	5.00	4.62	92	5.00	4.63	93	76.0-121	0.22	30.00
o-Xylene	5.00	4.78	96	5.00	4.90	98	75.0-124	2.5	30.00
Isopropylbenzene (Cumene)	5.00	4.76	95	5.00	4.62	92	77.0-120	2.8	30.00
n-Propylbenzene	5.00	4.56	92	5.00	4.46	89	77.0-123	2.7	30.00
2-Chlorotoluene	5.00	5.08	102	5.00	4.86	93	74.0-127	8.6	30.00
4-Chlorotoluene	5.00	4.91	98	5.00	4.65	93	77.0-123	5.4	30.00
1,3,5-Trimethylbenzene	5.00	4.84	97	5.00	4.58	92	76.0-122	5.5	30.00
tert-Butylbenzene	5.00	4.71	94	5.00	4.48	90	67.0-122	5.0	30.00
1,2,4-Trimethylbenzene	5.00	4.67	93	5.00	4.54	91	76.0-124	2.8	30.00
sec-Butylbenzene	5.00	4.61	92	5.00	4.50	90	78.0-121	2.4	30.00
1,3-Dichlorobenzene	5.00	4.54	93	5.00	4.52	90	75.0-120	2.6	30.00
4-Isopropyltoluene	5.00	4.73	95	5.00	4.50	90	77.0-120	5.0	30.00
1,4-Dichlorobenzene	5.00	4.88	98	5.00	4.77	95	70.0-125	2.3	30.00
1,2-Dichlorobenzene	5.00	4.65	93	5.00	4.71	94	76.0-118	1.3	30.00
n-Butylbenzene	5.00	4.63	93	5.00	4.52	90	78.0-118	2.4	30.00
1,2-Dibromo-3-chloropropane	30.0	27.1	90	30.0	25.2	84	62.0-130	7.3	30.00
1,2,4-Trichlorobenzene	5.00	4.47	89	5.00	4.31	86	72.0-119	3.6	30.00
Hexachlorobutadiene	5.00	5.34	107	5.00	4.95	99	89.0-121	7.6	30.00
Naphthalene	5.00	4.35	87	5.00	4.31	86	87.0-122	0.92	30.00
trans-1,4-Dichloro-2-butene	25.0	24.5	98	25.0	23.9	95	61.0-132	2.5	30.00
1,2,3-Trichlorobenzene	5.00	4.96	99	5.00	4.77	95	68.0-123	3.9	30.00

Print Date: 04/30/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22862 [VXX/3205]  
Blank Spike Lab ID: 67946  
Date Analyzed: 04/24/2012 09:34

Spike Duplicate ID: LCSD for HBN 22862 [VXX/3205]  
Spike Duplicate Lab ID: 67947  
Date Analyzed: 04/24/2012 09:59  
Matrix: Water

QC for Samples: 31201139002, 31201139003, 31201139004, 31201139005, 31201139006, 31201139007

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			GL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
<b>Surrogates</b>									
1,2-Dichloroethane-d4		96			94		64.0-140		
Toluene d8		106			103		82.0-117		
4-Bromofluorobenzene		106			104		85.0-115		

**Batch Information**

Analytical Batch: VMS2145  
Analytical Method: SW-846 8260B  
Instrument: MSD3  
Analyst: BWS

Prep Batch: VXX3205  
Prep Method: SW-846 5030B  
Prep Date/Time: 04/24/2012 08:20  
Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL  
Dupe Init Wt./Vol.: 40 mL Extract Vol: 40 mL

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Prep Batch: VXX3212

Prep Date: 04/25/2012 08:40

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 22909 [VXX/3212]	68162	04/25/2012 09:50	VMS2149	MSD4	DVO
LCSD for HBN 22909 [VXX/3212]	68163	04/25/2012 10:14	VMS2149	MSD4	DVO
MB for HBN 22909 [VXX/3212]	68164	04/25/2012 11:26	VMS2149	MSD4	DVO
Trip Blank	31201139020	04/25/2012 11:50	VMS2149	MSD4	DVO
MW-19S	31201139001	04/25/2012 14:39	VMS2149	MSD4	DVO
MW-25DD	31201139008	04/25/2012 15:03	VMS2149	MSD4	DVO
MW-21S	31201139013	04/25/2012 15:28	VMS2149	MSD4	DVO
MW-14S	31201139016	04/25/2012 15:52	VMS2149	MSD4	DVO
MW-21D	31201139014	04/25/2012 16:17	VMS2149	MSD4	DVO
MW-9D	31201139018	04/25/2012 16:41	VMS2149	MSD4	DVO
PW-1S	31201139015	04/25/2012 17:05	VMS2149	MSD4	DVO
MW-108D	31201139010	04/25/2012 17:30	VMS2149	MSD4	DVO
MW-23D	31201139011	04/25/2012 17:54	VMS2149	MSD4	DVO
MW-23DD	31201139012	04/25/2012 18:18	VMS2149	MSD4	DVO
MW-25D	31201139009	04/25/2012 18:42	VMS2149	MSD4	DVO
DPW-1D	31201139017	04/25/2012 19:07	VMS2149	MSD4	DVO
DPW-4SD	31201139019	04/25/2012 19:31	VMS2149	MSD4	DVO
DPW-4SD(67421MS)	68421	04/25/2012 19:56	VMS2149	MSD4	DVO
DPW-4SD(67421MSD)	68422	04/25/2012 20:20	VMS2149	MSD4	DVO

**Method Blank**

Blank ID: MB for HBN 22909 [VXX/3212]

Matrix: Water

Blank Lab ID: 68164

QC for Samples:

 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014,  
 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1
Chloromethane	ND	U	0.448	1.00	ug/L	1
Vinyl chloride	ND	U	0.124	1.00	ug/L	1
Bromomethane	ND	U	0.237	1.00	ug/L	1
Chloroethane	ND	U	0.311	1.00	ug/L	1
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1
Acetone	ND	U	0.864	25.0	ug/L	1
Methylene chloride	ND	U	0.152	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1
2-Butanone	ND	U	0.723	25.0	ug/L	1
Bromochloromethane	ND	U	0.211	1.00	ug/L	1
Chloroform	ND	U	0.139	1.00	ug/L	1
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1
Benzene	ND	U	0.113	1.00	ug/L	1
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1
Trichloroethene	ND	U	0.125	1.00	ug/L	1
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1
Dibromomethane	ND	U	0.168	1.00	ug/L	1
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1
Toluene	ND	U	0.133	1.00	ug/L	1
Methyl iodide	ND	U	0.115	1.00	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1
Carbon disulfide	ND	U	0.106	1.00	ug/L	1
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1
2-Hexanone	ND	U	0.728	5.00	ug/L	1
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1
Chlorobenzene	ND	U	0.116	1.00	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1

**Method Blank**

Blank ID: MB for HBN 22909 [VXX/3212]

Matrix: Water

Blank Lab ID: 68164

QC for Samples:

31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Bromoform	ND	U	0.0974	1.00	ug/L	1
Bromobenzene	ND	U	0.110	1.00	ug/L	1
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1
m,p-Xylene	ND	U	0.182	2.00	ug/L	1
Styrene	ND	U	0.102	1.00	ug/L	1
<i>o</i> -Xylene	ND	U	0.0874	1.00	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1
Naphthalene	ND	U	0.0855	1.00	ug/L	1
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	96.0			64.0-140	%	1
Toluene d8	98.0			82.0-117	%	1
4-Bromofluorobenzene	99.0			85.0-115	%	1

**Batch Information**

Analytical Batch: VMS2149

Prep Batch: VXX3212

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Instrument: MSD4

Prep Date/Time: 4/25/2012 8:40:18AM

Analyst: DVO

Prep Initial Vol./Vol.: 40 mL

Analytical Date/Time: 4/25/2012 11:28:00AM

Prep Extract Vol.: 40 mL

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22909 [VXX/3212]

Blank Spike Lab ID: 68162

Date Analyzed: 04/25/2012 09:50

Spike Duplicate ID: LCSD for HBN 22909 [VXX/3212]

Spike Duplicate Lab ID: 68163

Date Analyzed: 04/25/2012 10:14

Matrix: Water

QC for Samples: 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Dichlorodifluoromethane	5.00	4.93	99	5.00	5.22	104	33.0-170	5.7	30.00
Chloromethane	5.00	4.87	99	5.00	4.93	99	57.0-132	0.81	30.00
Vinyl chloride	5.00	4.47	89	5.00	4.63	93	59.0-133	3.5	30.00
Bromomethane	5.00	4.98	100	5.00	7.04	141*	51.0-134	34*	30.00
Chloroethane	5.00	6.02	120	5.00	6.44	129	64.0-145	6.7	30.00
Trichlorofluoromethane	5.00	5.35	107	5.00	5.57	111	64.0-133	4.0	30.00
1,1-Dichloroethene	5.00	4.80	96	5.00	5.36	107	71.0-128	11	30.00
Acetone	25.0	18.3	73	25.0	19.5	78	52.0-140	6.3	30.00
Methylene chloride	5.00	5.01	100	5.00	5.27	105	70.0-113	5.1	30.00
trans-1,2-Dichloroethene	5.00	5.05	101	5.00	5.46	109	57.0-138	7.8	30.00
tert-Butyl methyl ether (MTBE)	5.00	4.76	96	5.00	5.25	105	47.0-142	9.4	30.00
1,1-Dichloroethane	5.00	4.44	89	5.00	5.59	112	68.0-133	23	30.00
Diisopropyl Ether	5.00	4.89	98	5.00	5.15	103	66.0-132	5.2	30.00
2,2-Dichloropropane	5.00	4.65	93	5.00	5.02	100	74.0-125	7.7	30.00
cis-1,2-Dichloroethene	5.00	4.74	95	5.00	5.09	102	73.0-128	7.1	30.00
2-Butanone	25.0	18.2	73	25.0	19.2	77	58.0-134	5.3	30.00
Bromochloromethane	5.00	5.15	103	5.00	5.51	110	73.0-128	6.8	30.00
Chloroform	5.00	4.57	91	5.00	4.88	98	74.0-124	6.6	30.00
1,1,1-Trichloroethane	5.00	4.52	90	5.00	4.90	98	76.0-119	8.1	30.00
Carbon tetrachloride	5.00	4.49	90	5.00	4.82	96	75.0-120	7.1	30.00
1,1-Dichloropropene	5.00	4.50	90	5.00	4.95	99	76.0-124	9.5	30.00
Benzene	5.00	4.63	93	5.00	5.01	100	76.0-124	7.9	30.00
1,2-Dichloroethane	5.00	4.63	93	5.00	4.94	99	76.0-119	6.5	30.00
Trichloroethene	5.00	4.57	91	5.00	4.99	100	74.0-121	8.8	30.00
1,2-Dichloropropane	5.00	4.50	90	5.00	4.83	97	74.0-124	7.1	30.00
Dibromomethane	5.00	4.46	89	5.00	4.80	96	71.0-128	7.3	30.00
Bromodichloromethane	5.00	4.50	90	5.00	4.72	94	72.0-120	4.8	30.00
cis-1,3-Dichloropropene	5.00	4.90	98	5.00	5.40	108	73.0-122	9.7	30.00
4-Methyl-2-pentanone	25.0	21.2	85	25.0	22.3	89	65.0-124	5.1	30.00
Toluene	5.00	4.69	94	5.00	5.05	101	75.0-123	7.4	30.00
Methyl iodide	5.00	3.71	74	5.00	4.76	95	55.0-123	25	30.00
trans-1,3-Dichloropropene	5.00	4.34	87	5.00	4.70	94	70.0-125	8.0	30.00
Carbon disulfide	5.00	4.78	96	5.00	5.20	104	65.0-132	8.4	30.00
1,1,2-Trichloroethane	5.00	4.59	92	5.00	5.09	102	76.0-121	10	30.00

Print Date: 04/30/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22909 [VXX/3212]

Blank Spike Lab ID: 68162

Date Analyzed: 04/25/2012 09:50

Spike Duplicate ID: LCSD for HBN 22909 [VXX/3212]

Spike Duplicate Lab ID: 68163

Date Analyzed: 04/25/2012 10:14

Matrix: Water

QC for Samples: 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	5.00	4.49	90	5.00	4.97	99	59.0-112	10	30.00
1,3-Dichloropropane	5.00	4.54	91	5.00	4.78	96	74.0-120	5.2	30.00
2-Hexanone	25.0	18.0	72	25.0	18.9	76	56.0-133	4.9	30.00
Dibromochloromethane	5.00	4.30	86	5.00	4.64	93	87.0-122	7.6	30.00
1,2-Dibromoethane	5.00	4.52	90	5.00	4.91	98	74.0-119	8.3	30.00
Chlorobenzene	5.00	4.62	88	5.00	4.84	97	74.0-120	9.1	30.00
1,1,1,2-Tetrachloroethane	5.00	4.21	84	5.00	4.47	89	73.0-119	6.0	30.00
Bromoform	5.00	4.13	83	5.00	4.45	89	62.0-127	7.5	30.00
Bromobenzene	5.00	4.38	88	5.00	4.73	95	75.0-120	7.7	30.00
1,1,2,2-Tetrachloroethane	5.00	4.60	92	5.00	4.82	96	68.0-129	4.7	30.00
1,2,3-Trichloropropane	5.00	4.77	95	5.00	5.10	102	67.0-126	6.7	30.00
Ethyl Benzene	5.00	4.44	89	5.00	4.88	98	76.0-123	9.4	30.00
m,p-Xylene	10.0	8.93	89	10.0	9.91	99	76.0-124	10	30.00
Styrene	5.00	4.35	87	5.00	4.77	95	76.0-121	9.2	30.00
o-Xylene	5.00	4.42	88	5.00	4.95	99	75.0-124	11	30.00
Isopropylbenzene (Cumene)	5.00	4.51	90	5.00	5.02	100	77.0-120	11	30.00
n-Propylbenzene	5.00	4.17	89	5.00	4.95	99	77.0-123	10	30.00
2-Chlorotoluene	5.00	4.52	90	5.00	4.99	100	74.0-127	9.9	30.00
4-Chlorotoluene	5.00	4.38	88	5.00	4.83	97	77.0-123	9.8	30.00
1,3,5-Trimethylbenzene	5.00	4.45	89	5.00	4.94	99	76.0-122	10	30.00
tert-Butylbenzene	5.00	4.50	90	5.00	4.92	98	67.0-122	8.9	30.00
1,2,4-Trimethylbenzene	5.00	4.47	89	5.00	4.91	98	76.0-124	9.4	30.00
sec-Butylbenzene	5.00	4.43	89	5.00	4.86	97	78.0-121	9.3	30.00
1,3-Dichlorobenzene	5.00	4.49	90	5.00	4.85	98	75.0-120	8.3	30.00
4-Isopropyltoluene	5.00	4.50	90	5.00	5.06	101	77.0-120	12	30.00
1,4-Dichlorobenzene	5.00	4.57	91	5.00	4.99	100	70.0-125	8.8	30.00
1,2-Dichlorobenzene	5.00	4.45	89	5.00	4.86	97	76.0-118	8.8	30.00
n-Butylbenzene	5.00	4.59	92	5.00	4.99	100	78.0-118	8.4	30.00
1,2-Dibromo-3-chloropropane	30.0	26.5	88	30.0	28.2	94	62.0-130	6.2	30.00
1,2,4-Trichlorobenzene	5.00	4.49	90	5.00	4.78	96	72.0-119	6.3	30.00
Hexachlorobutadiene	5.00	4.70	94	5.00	4.94	99	69.0-121	5.0	30.00
Naphthalene	5.00	4.64	93	5.00	4.98	100	67.0-122	7.1	30.00
trans-1,4-Dichloro-2-butene	25.0	21.1	84	25.0	22.8	90	61.0-132	6.9	30.00
1,2,3-Trichlorobenzene	5.00	4.73	95	5.00	4.96	99	68.0-123	4.7	30.00

Print Date: 04/30/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22909 [VXX/3212]

Blank Spike Lab ID: 68162

Date Analyzed: 04/25/2012 09:50

Spike Duplicate ID: LCSD for HBN 22909 [VXX/3212]

Spike Duplicate Lab ID: 68163

Date Analyzed: 04/25/2012 10:14

Matrix: Water

QC for Samples: 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/L)			Spike Duplicate (ug/L)			<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>			
<b>Surrogates</b>									
1,2-Dichloroethane-d4		100			100		84.0-140		
Toluene d8		101			100		82.0-117		
4-Bromofluorobenzene		100			100		85.0-115		

**Batch Information**

Analytical Batch: VMS2149

Prep Batch: VXX3212

Analytical Method: SW-846 B260B

Prep Method: SW-846 5030B

Instrument: MSD4

Prep Date/Time: 04/25/2012 08:40

Analyst: DYC

Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL

Dups Init Wt./Vol.: 40 mL Extract Vol: 40 mL

**Matrix Spike Summary**

Original Sample ID: 31201139019 (DPW-4SD)

Analysis Date: 04/25/2012 19:31

MS Sample ID: 68421

Analysis Date: 04/25/2012 19:56

MSD Sample ID: 68422

Analysis Date: 04/25/2012 20:20

Matrix: Water

QC for Samples: 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

Parameter	Sample	Matrix Spike (ug/L)				Spike Duplicate (ug/L)				RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL			
1,1,1,2-Tetrachloroethane	ND	2000	1580	79	2000	1650	82	69.0-120	4.3	30.00	
1,1,1-Trichloroethane	ND	2000	1680	94	2000	1930	97	78.0-121	2.6	30.00	
1,1,2,2-Tetrachloroethane	ND	2000	2170	109	2000	2150	107	76.0-136	0.93	30.00	
1,1,2-Trichloroethane	ND	2000	2120	106	2000	2140	107	65.0-128	0.94	30.00	
1,1-Dichloroethane	68.0	2000	2190	110	2000	2150	107	76.0-128	1.8	30.00	
1,1-Dichloroethene	ND	2000	2010	101	2000	2160	108	84.0-130	7.2	30.00	
1,1-Dichloropropene	ND	2000	1920	96	2000	1980	99	73.0-120	3.1	30.00	
1,2,3-Trichlorobenzene	ND	2000	1980	99	2000	2080	104	61.0-126	4.9	30.00	
1,2,3-Trichloropropane	ND	2000	2480	124	2000	2240	112	10.0-218	10	30.00	
1,2,4-Trichlorobenzene	ND	2000	1830	92	2000	1960	98	61.0-125	6.9	30.00	
1,2,4-Trimethylbenzene	ND	2000	1960	98	2000	1970	99	31.0-172	0.51	30.00	
1,2-Dibromo-3-chloropropane	ND	12000	11100	93	12000	11400	95	20.0-171	2.7	30.00	
1,2-Dibromoethane	ND	2000	2070	103	2000	2060	103	79.0-123	0.48	30.00	
1,2-Dichlorobenzene	ND	2000	1980	99	2000	2000	100	75.0-120	1.0	30.00	
1,2-Dichloroethane	ND	2000	1990	99	2000	1980	99	71.0-127	0.50	30.00	
1,2-Dichloropropane	ND	2000	1920	96	2000	1920	96	77.0-129	0.0	30.00	
1,3,5-Trimethylbenzene	ND	2000	1980	99	2000	1980	99	68.0-132	0.0	30.00	
1,3-Dichlorobenzene	ND	2000	1920	96	2000	1940	97	73.0-121	1.0	30.00	
1,3-Dichloropropane	ND	2000	2060	103	2000	2050	103	79.0-121	0.49	30.00	
1,4-Dichlorobenzene	ND	2000	1940	97	2000	1960	98	75.0-118	1.0	30.00	
2,2-Dichloropropane	ND	2000	2170	108	2000	1950	98	32.0-157	11	30.00	
2-Butanone	ND	10000	7570	76	10000	7600	76	36.0-107	0.40	30.00	
2-Chlorotoluene	ND	2000	1980	99	2000	1960	98	79.0-118	1.0	30.00	
2-Hexanone	ND	10000	8270	83	10000	8210	82	42.0-111	0.73	30.00	
4-Chlorotoluene	ND	2000	1840	92	2000	1870	94	77.0-120	1.6	30.00	
4-Isopropyltoluene	ND	2000	1980	98	2000	1970	98	75.0-122	0.51	30.00	
4-Methyl-2-pentanone	ND	10000	10300	103	10000	10400	104	6.80-166	0.97	30.00	
Acetone	ND	10000	5710	57	10000	5870	59	18.0-85.0	2.8	30.00	
Benzene	ND	2000	2000	100	2000	2020	101	62.0-135	1.0	30.00	
Bromobenzene	ND	2000	1980	99	2000	1920	96	65.0-125	3.1	30.00	
Bromochloromethane	ND	2000	2690	134 *	2000	2390	119	76.0-126	12	30.00	
Bromodichloromethane	ND	2000	1680	84	2000	1750	88	74.0-123	4.1	30.00	
Bromoform	ND	2000	1500	75	2000	1580	79	52.0-122	5.2	30.00	
Bromomethane	ND	2000	1980	99	2000	2680	134	10.0-284	30	30.00	
n-Butylbenzene	ND	2000	1930	96	2000	1970	98	70.0-124	2.1	30.00	
Carbon disulfide	ND	2000	2070	104	2000	2100	105	69.0-129	1.4	30.00	
Carbon tetrachloride	ND	2000	1730	86	2000	1800	90	72.0-122	4.0	30.00	
Chlorobenzene	ND	2000	1940	97	2000	1950	98	77.0-118	0.51	30.00	

**Matrix Spike Summary**

Original Sample ID: 31201139019 (DPW-4SD)

Analysis Date: 04/25/2012 19:31

MS Sample ID: 68421

Analysis Date: 04/25/2012 19:56

MSD Sample ID: 68422

Analysis Date: 04/25/2012 20:20

Matrix: Water

QC for Samples: 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013, 31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Chloroethane	ND	2000	2240	112	2000	2550	128	10.0-233	13	30.00
Chloroform	ND	2000	2050	103	2000	1980	99	74.0-128	3.5	30.00
Chloromethane	ND	2000	1940	97	2000	2150	107	72.0-138	10	30.00
Dibromochloromethane	ND	2000	1620	81	2000	1700	85	89.0-117	4.8	30.00
Dibromomethane	ND	2000	1920	96	2000	2000	100	71.0-137	4.1	30.00
Dichlorodifluoromethane	ND	2000	2120	106	2000	2290	115	42.0-166	7.7	30.00
cis-1,3-Dichloropropene	ND	2000	1840	92	2000	1890	94	67.0-132	2.7	30.00
trans-1,3-Dichloropropene	ND	2000	1590	80	2000	1680	84	45.0-144	5.5	30.00
Diisopropyl Ether	ND	2000	1990	99	2000	1990	99	79.0-122	0.0	30.00
Ethyl Benzene	ND	2000	1940	97	2000	1940	97	74.0-126	0.0	30.00
Hexachlorobutadiene	ND	2000	1770	88	2000	1880	94	52.0-134	6.0	30.00
Isopropylbenzene (Cumene)	ND	2000	1960	98	2000	1970	98	74.0-123	0.51	30.00
Methyl iodide	ND	2000	2080	104	2000	2140	107	41.0-126	2.8	30.00
Methylene chloride	ND	2000	2210	110	2000	2250	112	49.0-155	1.8	30.00
Naphthalene	ND	2000	2100	105	2000	2190	109	55.0-140	4.2	30.00
Styrene	ND	2000	1910	96	2000	1900	95	73.0-123	0.52	30.00
Tetrachloroethylene	ND	2000	1960	98	2000	1980	99	46.0-153	1.0	30.00
Toluene	ND	2000	1980	99	2000	2020	101	66.0-128	2.0	30.00
Trichloroethylene	848	2000	2730	94	2000	2940	104	85.0-136	7.4	30.00
Trichlorofluoromethane	ND	2000	2170	109	2000	2380	119	77.0-132	9.2	30.00
Vinyl chloride	788	2000	2740	98	2000	2940	108	58.0-137	7.0	30.00
cis-1,2-Dichloroethylene	7600	2000	10600	152 *	2000	10600	152 *	73.0-134	0.0	30.00
m,p-Xylene	ND	4000	3960	99	4000	3940	99	80.0-118	0.51	30.00
n-Propylbenzene	ND	2000	1940	97	2000	1980	98	72.0-128	1.0	30.00
o-Xylene	ND	2000	1940	97	2000	1970	99	80.0-121	1.5	30.00
sec-Butylbenzene	ND	2000	1930	96	2000	1980	98	62.0-133	1.5	30.00
tert-Butyl methyl ether (MTBE)	ND	2000	2120	106	2000	2140	107	67.0-136	0.94	30.00
tert-Butylbenzene	ND	2000	1950	97	2000	1960	98	74.0-121	0.51	30.00
trans-1,2-Dichloroethylene	ND	2000	2090	104	2000	2200	110	75.0-124	5.1	30.00
trans-1,4-Dichloro-2-butene	ND	10000	8470	85	10000	8940	89	26.0-140	5.4	30.00

**Surrogates**

1,2-Dichloroethane-d4	99	100	64.0-140
4-Bromofluorobenzene	101	99	85.0-115
Toluene d8	99	100	82.0-117

**Matrix Spike Summary**

Original Sample ID: 31201139019 (DPW-4SD)  
MS Sample ID: 68421  
MSD Sample ID: 68422

Analysis Date: 04/25/2012 19:31  
Analysis Date: 04/25/2012 19:56  
Analysis Date: 04/25/2012 20:20  
Matrix: Water

QC for Samples: 31201139001, 31201139008, 31201139009, 31201139010, 31201139011, 31201139012, 31201139013,  
31201139014, 31201139015, 31201139016, 31201139017, 31201139018, 31201139019, 31201139020

**Results by SW-846 8260B**

Parameter	Sample	Matrix Spike (%)		Spike Duplicate (%)				RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)		

**Batch Information**

Analytical Batch: VMS2149  
Analytical Method: SW-846 8260B  
Instrument: MSDI  
Analyst: DVO

Prep Batch: VXX3212  
Prep Method: SW-846 5030B  
Prep Date/Time: 04/25/2012 08:00  
MS Init Wt./Vol.: 40 mL Extract Vol.: 40 mL  
MSD Init Wt./Vol.: 40 mL Extract Vol.: 40 mL

# SGS

**CHAIN OF CUSTODY RECORD**  
**SGS North America Inc.**

Locations Nationwide  
 • Alaska      • Maryland  
 • New Jersey      • New York  
 • North Carolina      • Ohio

www.us.sgs.com

104197

1	CLIENT: <b>ARCADIS</b>	CONTACT: <b>Aaron Richardson</b>	PHONE NO: <b>585) 202 4393</b>
PROJECT: <b>AVX MB</b>	SITE/PWSID#:		
REPORTS TO: <b>Aaron Richardson</b>	FAX NO.:()		
INVOICE TO: <b>Aaron Richardson</b>	QUOTE #:		
2	P.O. NUMBER: <b>B00073930000</b>		

No	CONTAINERS	SAMPLE TYPE C= COMP G= GRAB	Preservatives Used HCl	Analysis Required								REMARKS
				③	④ VOC	⑤	⑥	⑦	⑧	⑨	⑩	
MW-19S	4/17/12	0845	GW	3	G	R	R	R	R	R	R	
PW-7S	4/17/12	0915	GW	3	G	R	R	R	R	R	R	
MW-17D	4/17/12	1017	GW	3	G	R	R	R	R	R	R	
MW-2S	4/17/12	1030	GW	3	G	R	R	R	R	R	R	
MWCC-7	4/17/12	1100	GW	3	G	R	R	R	R	R	R	
MW-11ID	4/17/12	1227	GW	3	G	R	R	R	R	R	R	
MW-24D	4/17/12	1247	GW	3	G	R	R	R	R	R	R	
MW-25DD	4/17/12	1305	GW	3	G	R	R	R	R	R	R	
MW-25D	4/17/12	1313	GW	3	G	R	R	R	R	R	R	
MW-108D	4/17/12	1417	GW	3	G	R	R	R	R	R	R	

Collected/Relinquished By: (1) <i>Roberto B. Soto</i> <i>2/17/12</i>	Date 4/17/12	Time 1840	Received By: <i>Fed Ex</i>	④ Shipping Carrier: <i>Fed Ex</i>	Samples Received Cold? (Circle) YES <input checked="" type="checkbox"/> NO		
Relinquished By: (2)	Date 4/18/12	Time 0930	Received By: <i>Judy Flum</i>	Shipping Ticket No:	Temperature °C: <i>3-2</i>		
Relinquished By: (3)	Date	Time	Received By:	Special Deliverable Requirements:	Chain of Custody Seal: (Circle)		
Relinquished By: (4)	Date	Time	Received By:	Special Instructions:	<input checked="" type="radio"/> INTACT	<input type="radio"/> BROKEN	<input type="radio"/> ABSENT
				Requested Turnaround Time:	<input type="checkbox"/> RUSH _____ <input checked="" type="checkbox"/> STD <small>Date Needed</small>		

**CHAIN OF CUSTODY RECORD**  
**SGS North America Inc.**

Locations Nationwide

- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio

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104196

1 CLIENT: <b>ARCADIS</b>					SGS Reference: <b>3/20/139</b>					PAGE <b>2 OF 2</b>																																																																																																														
CONTACT: <b>Aaron Richardson</b> PHONE NO: <b>585 202 4393</b>					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>No</td> <td>SAMPLE TYPE</td> <td>Preservatives Used</td> <td>HCl</td> <td></td> </tr> <tr> <td rowspan="10" style="text-align: center; vertical-align: middle;">CONTAINERS</td> <td>C= COMP</td> <td>Analysis Required</td> <td rowspan="10" style="text-align: center; vertical-align: middle;">③ VOC</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>G= GRAB</td> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> </table>	No	SAMPLE TYPE	Preservatives Used	HCl											CONTAINERS	C= COMP	Analysis Required	③ VOC										G= GRAB																																																																																							
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MW-23D		4/17/12 1439		GW	3	G	X																																																																																																																	
MW-23DD		4/17/12 1448		GW	3	G	X																																																																																																																	
MW-21S		4/17/12 1505		GW	3	G	X																																																																																																																	
MW-21D		4/17/12 1513		GW	3	G	X																																																																																																																	
PW-1S		4/17/12 1545		GW	3	G	X																																																																																																																	
MW-14S		4/17/12 1555		GW	3	G	X																																																																																																																	
DPW-1D		4/17/12 1650		GW	3	G	X																																																																																																																	
MW-9D		4/17/12 1702		GW	3	G	X																																																																																																																	
DPW-4SD		4/17/12 1720		GW	3	G	X																																																																																																																	
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5 Collected/Relinquished By:(1)		Date	Time	Received By:		④		Shipping Carrier: <b>Fed Ex</b>		Samples Received Cold? (Circle) YES NO																																																																																																														
<i>Robert B. Sheek</i> <i>July 1st</i>		4/17/12	1840	<i>Fed Ex</i>						Temperature°C: <b>3.2°C</b>																																																																																																														
Relinquished By: (2)		Date	Time	Received By:				Special Deliverable Requirements:		Chain of Custody Seal: (Circle)																																																																																																														
		4/18/12	0930	<i>July 1st</i>						<input checked="" type="radio"/> INTACT <input type="radio"/> BROKEN <input type="radio"/> ABSENT																																																																																																														
Relinquished By: (3)		Date	Time	Received By:				Special Instructions:																																																																																																																
Relinquished By: (4)		Date	Time	Received By:				Requested Turnaround Time:																																																																																																																
								<input type="checkbox"/> RUSH _____		Date Needed <b>STD</b>																																																																																																														

# SGS North America Inc.

## Sample Receipt Checklist (SRC)

Client: Arcadis Work Order No.: 31201139

1.  Shipped  
 Hand Delivered  
Notes: \_\_\_\_\_  
\_\_\_\_\_
2.  COC Present on Receipt  
 No COC  
 Additional Transmittal Forms  
\_\_\_\_\_  
\_\_\_\_\_
3.  Custody Tape on Container  
 No Custody Tape  
\_\_\_\_\_  
\_\_\_\_\_
4.  Samples Intact  
 Samples Broken / Leaking  
\_\_\_\_\_  
\_\_\_\_\_
5.  Chilled on Receipt      Actual Temp.(s) in °C: 3.2  
 Ambient on Receipt  
 Walk-in on Ice; Coming down to temp.  
 Received Outside of Temperature Specifications  
\_\_\_\_\_  
\_\_\_\_\_
6.  Sufficient Sample Submitted  
 Insufficient Sample Submitted  
\_\_\_\_\_  
\_\_\_\_\_
7.  Chlorine absent  
 HNO3 < 2  
 HCL < 2  
 Additional Preservatives verified (see notes)  
\_\_\_\_\_  
\_\_\_\_\_
8.  Received Within Holding Time  
 Not Received Within Holding Time  
\_\_\_\_\_  
\_\_\_\_\_
9.  No Discrepancies Noted  
 Discrepancies Noted  
 NCDENR notified of Discrepancies\*  
\_\_\_\_\_  
\_\_\_\_\_
10.  No Headspace present in VOC vials  
 Headspace present in VOC vials >6mm  
\_\_\_\_\_  
\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inspected and Logged in by: JJ

Date: Wed-4/18/12 00:00

## Laboratory Report of Analysis

To: Mark Hanish  
ARCADIS  
One Adams Place  
310 Seven Fields Blvd.  
Seven Fields, PA 10604

Report Number: 31201159

Client Project: AVX Myrtle Beach

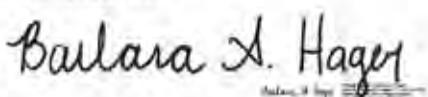
Dear Mark Hanish,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Barbara A. Hager at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.



Barbara A. Hager  
2012.04.30 15:09:57 -05'00'

---

Barbara A. Hager  
Project Manager  
barbara.hager@sgs.com

Date

**Laboratory Qualifiers****Report Definitions**

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

**Qualifier Definitions**

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern Integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note    Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

## Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
DPW-3SD	31201159001	04/18/2012 17:23	04/20/2012 10:00	Water

## Case Narrative

### MB for HBN 22943 [VXX/3217]

8260B The LMB associated with batch VMS2154 has a reported 'J' concentration for Methylene Chloride.

**Detectable Results Summary**Client Sample ID: **DPW-3SD**

Lab Sample ID: 31201159001-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
2-Butanone	8.88	ug/L	J
Acetone	6.94	ug/L	J
Toluene	0.330	ug/L	J
Vinyl chloride	2.28	ug/L	
cis-1,2-Dichloroethene	0.830	ug/L	J

**Quality Control Samples**Client Sample ID: **MB for HBN 22943 [VXX/3217]**

Lab Sample ID: 68372

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	0.210	ug/L	J

## Results of DPW-3SD

Client Sample ID: DPW-3SD  
 Client Project ID: AVX Myrtle Beach  
 Lab Sample ID: 31201159001-A  
 Lab Project ID: 31201159

Collection Date: 04/18/2012 17:23  
 Received Date: 04/20/2012 10:00  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/26/2012 12:29
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/26/2012 12:29
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/26/2012 12:29
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/26/2012 12:29
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/26/2012 12:29
1,1-Dichloroelhene	ND	U	0.212	1.00	ug/L	1	04/26/2012 12:29
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/26/2012 12:29
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/26/2012 12:29
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/26/2012 12:29
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/26/2012 12:29
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/26/2012 12:29
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/26/2012 12:29
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/26/2012 12:29
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/26/2012 12:29
1,2-Dichloroethane	ND	U	0.187	1.00	ug/L	1	04/26/2012 12:29
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/26/2012 12:29
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/26/2012 12:29
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/26/2012 12:29
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/26/2012 12:29
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/26/2012 12:29
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/26/2012 12:29
2-Butanone	8.88	J	0.723	25.0	ug/L	1	04/26/2012 12:29
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/26/2012 12:29
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/26/2012 12:29
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/26/2012 12:29
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/26/2012 12:29
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/26/2012 12:29
Acetone	6.94	J	0.864	25.0	ug/L	1	04/26/2012 12:29
Benzene	ND	U	0.113	1.00	ug/L	1	04/26/2012 12:29
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/26/2012 12:29
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/26/2012 12:29
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/26/2012 12:29
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/26/2012 12:29
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/26/2012 12:29
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/26/2012 12:29
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/26/2012 12:29
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/26/2012 12:29
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/26/2012 12:29
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/26/2012 12:29
Chloroform	ND	U	0.139	1.00	ug/L	1	04/26/2012 12:29
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/26/2012 12:29
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/26/2012 12:29
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/26/2012 12:29

Print Date: 04/30/2012

N.C. Certification #401

## Results of DPW-3SD

Client Sample ID: DPW-3SD  
 Client Project ID: AVX Myrtle Beach  
 Lab Sample ID: 31201159001-A  
 Lab Project ID: 31201159

Collection Date: 04/18/2012 17:23  
 Received Date: 04/20/2012 10:00  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/26/2012 12:29
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/26/2012 12:29
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/26/2012 12:29
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/26/2012 12:29
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/26/2012 12:29
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/26/2012 12:29
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/26/2012 12:29
Methyl Iodide	ND	U	0.115	1.00	ug/L	1	04/26/2012 12:29
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/26/2012 12:29
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/26/2012 12:29
Styrene	ND	U	0.102	1.00	ug/L	1	04/26/2012 12:29
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/26/2012 12:29
Toluene	0.330	J	0.133	1.00	ug/L	1	04/26/2012 12:29
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/26/2012 12:29
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/26/2012 12:29
Vinyl chloride	2.28		0.124	1.00	ug/L	1	04/26/2012 12:29
cis-1,2-Dichloroethene	0.830	J	0.136	1.00	ug/L	1	04/26/2012 12:29
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/26/2012 12:29
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/26/2012 12:29
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/26/2012 12:29
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/26/2012 12:29
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/26/2012 12:29
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/26/2012 12:29
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/26/2012 12:29
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/26/2012 12:29

## Surrogates

1,2-Dichloroethane-d4	99.0	64.0-140	%	1	04/26/2012 12:29
4-Bromofluorobenzene	100	85.0-115	%	1	04/26/2012 12:29
Toluene d8	98.0	82.0-117	%	1	04/26/2012 12:29

## Batch Information

Analytical Batch: VMS2154  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 04/26/2012 12:29

Prep Batch: VXX3217  
 Prep Method: SW-846 6030B  
 Prep Date/Time: 04/26/2012 10:00  
 Prep Initial Wt/Vol: 40 mL  
 Prep Extract Vol: 40 mL

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Prep Batch: VXX3217

Prep Date: 04/26/2012 08:28

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 22943 [VXX/3217]	68370	04/26/2012 09:36	VMS2154	MSD3	BWS
LCSD for HBN 22943 [VXX/3217]	68371	04/26/2012 10:01	VMS2154	MSD3	BWS
MB for HBN 22943 [VXX/3217]	68372	04/26/2012 11:15	VMS2154	MSD3	BWS
DPW-3SD	31201159001	04/26/2012 12:29	VMS2154	MSD3	BWS
A5122(67760MS)	68520	04/26/2012 19:54	VMS2154	MSD3	BWS
A5122(67760MSD)	68521	04/26/2012 20:19	VMS2154	MSD3	BWS

**Method Blank**

Blank ID: MB for HBN 22943 [VXX/3217]

Matrix: Water

Blank Lab ID: 68372

QC for Samples:

31201159001

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1
Chloromethane	ND	U	0.448	1.00	ug/L	1
Vinyl chloride	ND	U	0.124	1.00	ug/L	1
Bromomethane	ND	U	0.237	1.00	ug/L	1
Chloroethane	ND	U	0.311	1.00	ug/L	1
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1
Acetone	ND	U	0.864	25.0	ug/L	1
Methylene chloride	0.210	J	0.152	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1
2-Butanone	ND	U	0.723	25.0	ug/L	1
Bromochloromethane	ND	U	0.211	1.00	ug/L	1
Chloroform	ND	U	0.139	1.00	ug/L	1
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1
Benzene	ND	U	0.113	1.00	ug/L	1
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1
Trichloroethene	ND	U	0.125	1.00	ug/L	1
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1
Dibromomethane	ND	U	0.168	1.00	ug/L	1
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1
Toluene	ND	U	0.133	1.00	ug/L	1
Methyl iodide	ND	U	0.115	1.00	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1
Carbon disulfide	ND	U	0.106	1.00	ug/L	1
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1
2-Hexanone	ND	U	0.728	5.00	ug/L	1
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1
Chlorobenzene	ND	U	0.116	1.00	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1

Print Date: 04/30/2012

N.C. Certification # A81

**Method Blank**

Blank ID: MB for HBN 22943 [VXX/3217]

Matrix: Water

Blank Lab ID: 68372

QC for Samples:

31201159001

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Bromoform	ND	U	0.0974	1.00	ug/L	1
Bromobenzene	ND	U	0.110	1.00	ug/L	1
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1
m,p-Xylene	ND	U	0.182	2.00	ug/L	1
Styrene	ND	U	0.102	1.00	ug/L	1
$\alpha$ -Xylene	ND	U	0.0874	1.00	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1
Naphthalene	ND	U	0.0855	1.00	ug/L	1
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	99.0			64.0-140	%	1
Toluene d8	99.0			82.0-117	%	1
4-Bromofluorobenzene	96.0			85.0-115	%	1

**Batch Information**

Analytical Batch: VMS2154

Prep Batch: VXX3217

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Instrument: MSD3

Prep Date/Time: 4/26/2012 8:28:12AM

Analyst: BWS

Prep Initial Wt./Vol.: 40 mL

Analytical Date/Time: 4/26/2012 11:15:00AM

Prep Extract Vol.: 40 mL

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22943 [VXX/3217]

Blank Spike Lab ID: 68370

Date Analyzed: 04/26/2012 09:36

Spike Duplicate ID: LCSD for HBN 22943 [VXX/3217]

Spike Duplicate Lab ID: 68371

Date Analyzed: 04/26/2012 10:01

Matrix: Water

QC for Samples: 31201159001

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Dichlorodifluoromethane	5.00	6.45	129	5.00	6.28	126	33.0-170	2.5	30.00
Chloromethane	5.00	5.25	105	5.00	5.05	101	57.0-132	3.9	30.00
Vinyl chloride	5.00	6.21	124	5.00	5.93	119	59.0-138	4.6	30.00
Bromomethane	5.00	12.5	251*	5.00	9.48	190*	51.0-134	27	30.00
Chloroethane	5.00	5.61	110	5.00	5.00	100	64.0-145	9.7	30.00
Trichlorofluoromethane	5.00	5.53	111	5.00	5.32	106	64.0-133	3.9	30.00
1,1-Dichloroethene	5.00	4.77	95	5.00	4.45	89	71.0-128	6.9	30.00
Acetone	25.0	24.2	97	25.0	22.2	89	52.0-140	8.6	30.00
Methylene chloride	5.00	5.09	102	5.00	4.70	94	70.0-113	8.0	30.00
trans-1,2-Dichloroethene	5.00	4.87	97	5.00	4.50	90	67.0-138	7.9	30.00
tert-Butyl methyl ether (MTBE)	5.00	4.27	85	5.00	3.97	79	47.0-142	7.3	30.00
1,1-Dichloroethane	5.00	4.60	92	5.00	4.23	85	68.0-133	8.4	30.00
Diisopropyl Ether	5.00	4.48	90	5.00	4.21	84	66.0-132	6.2	30.00
2,2-Dichloropropane	5.00	5.21	104	5.00	4.95	100	74.0-125	4.5	30.00
cis-1,2-Dichloroethene	5.00	4.77	95	5.00	4.40	88	73.0-128	8.1	30.00
2-Butanone	25.0	21.1	84	25.0	19.9	80	58.0-134	5.9	30.00
Bromochloromethane	5.00	4.50	90	5.00	4.15	83	73.0-128	8.1	30.00
Chloroform	5.00	4.70	94	5.00	4.22	84	74.0-124	11	30.00
1,1,1-Trichloroethane	5.00	4.68	94	5.00	4.48	90	76.0-119	4.4	30.00
Carbon tetrachloride	5.00	4.89	98	5.00	4.86	93	75.0-120	4.8	30.00
1,1-Dichloropropene	5.00	4.70	94	5.00	4.50	90	76.0-124	4.3	30.00
Benzene	5.00	4.71	94	5.00	4.34	87	76.0-124	8.2	30.00
1,2-Dichloroethane	5.00	4.55	91	5.00	4.18	84	76.0-119	8.5	30.00
Trichloroethene	5.00	4.53	91	5.00	4.37	87	74.0-121	3.6	30.00
1,2-Dichloropropane	5.00	4.70	94	5.00	4.17	83	74.0-128	12	30.00
Dibromomethane	5.00	4.49	90	5.00	4.50	90	71.0-128	0.22	30.00
Bromodichloromethane	5.00	4.79	96	5.00	4.25	85	72.0-120	12	30.00
cis-1,3-Dichloropropene	5.00	4.86	97	5.00	4.42	88	73.0-122	9.5	30.00
4-Methyl-2-pentanone	25.0	20.7	83	25.0	19.3	77	65.0-124	7.0	30.00
Toluene	5.00	4.80	96	5.00	4.41	88	75.0-123	8.5	30.00
Methyl iodide	5.00	5.18	104	5.00	4.74	95	55.0-123	6.9	30.00
trans-1,3-Dichloropropene	5.00	4.50	90	5.00	4.26	85	70.0-125	5.5	30.00
Carbon disulfide	5.00	4.43	89	5.00	4.18	84	65.0-132	5.8	30.00
1,1,2-Trichloroethane	5.00	4.68	94	5.00	4.59	92	76.0-121	1.9	30.00

Print Date: 04/30/2012

N.C. Certification # 461

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22943 [VXX/3217]

Blank Spike Lab ID: 68370

Date Analyzed: 04/26/2012 09:36

Spike Duplicate ID: LCSD for HBN 22943 [VXX/3217]

Spike Duplicate Lab ID: 68371

Date Analyzed: 04/26/2012 10:01

Matrix: Water

QC for Samples: 31201159001

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)			GL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	5.00	5.13	103	5.00	4.54	91	59.0-112	12	30.00
1,3-Dichloropropane	5.00	4.51	90	5.00	4.24	85	74.0-120	6.2	30.00
2-Hexanone	25.0	20.8	83	25.0	19.0	76	56.0-133	9.0	30.00
Dibromochloromethane	5.00	4.73	95	5.00	4.36	87	67.0-122	8.1	30.00
1,2-Dibromoethane	5.00	4.53	91	5.00	4.35	87	74.0-119	4.1	30.00
Chlorobenzene	5.00	4.67	93	5.00	4.32	86	74.0-120	7.8	30.00
1,1,1,2-Tetrachloroethane	5.00	4.64	93	6.00	4.36	87	73.0-119	6.2	30.00
Bromoform	5.00	4.80	96	5.00	4.51	90	62.0-127	6.2	30.00
Bromobenzene	5.00	4.70	94	5.00	4.29	86	75.0-120	9.1	30.00
1,1,2,2-Tetrachloroethane	5.00	4.35	87	5.00	3.94	79	68.0-129	9.9	30.00
1,2,3-Trichloropropane	5.00	4.08	82	5.00	3.57	71	67.0-126	13	30.00
Ethyl Benzene	5.00	4.78	95	5.00	4.34	87	78.0-123	9.2	30.00
m,p-Xylene	10.0	10.0	100	10.0	9.28	93	78.0-124	7.5	30.00
Styrene	5.00	4.64	97	5.00	4.45	89	76.0-121	8.4	30.00
o-Xylene	5.00	5.03	101	5.00	4.50	90	75.0-124	11	30.00
Isopropylbenzene (Cumene)	5.00	4.98	100	5.00	4.53	91	77.0-120	9.5	30.00
n-Propylbenzene	5.00	4.97	99	5.00	4.91	98	77.0-123	1.2	30.00
2-Chlorotoluene	5.00	4.74	95	5.00	4.52	90	74.0-127	4.8	30.00
4-Chlorotoluene	5.00	5.00	100	5.00	4.25	85	77.0-123	16	30.00
1,3,5-Trimethylbenzene	5.00	4.95	99	5.00	4.55	91	76.0-122	8.4	30.00
tert-Butylbenzene	5.00	4.63	93	5.00	4.43	89	67.0-122	4.4	30.00
1,2,4-Trimethylbenzene	5.00	4.75	95	5.00	4.49	90	76.0-124	5.6	30.00
sec-Butylbenzene	5.00	4.73	95	5.00	4.31	86	78.0-121	9.3	30.00
1,3-Dichlorobenzene	5.00	4.89	98	5.00	4.55	91	75.0-120	7.2	30.00
4-Isopropyltoluene	5.00	4.76	95	5.00	4.34	87	77.0-120	9.2	30.00
1,4-Dichlorobenzene	5.00	4.93	99	5.00	4.42	88	70.0-125	11	30.00
1,2-Dichlorobenzene	5.00	4.91	98	5.00	4.47	89	78.0-118	9.4	30.00
n-Butylbenzene	5.00	4.73	95	5.00	4.50	90	78.0-118	5.0	30.00
1,2-Dibromo-3-chloropropane	30.0	24.8	83	30.0	24.3	81	62.0-130	2.0	30.00
1,2,4-Trichlorobenzene	5.00	4.29	86	5.00	4.10	82	72.0-119	4.5	30.00
Hexachlorobutadiene	5.00	5.08	102	5.00	4.61	92	69.0-121	9.7	30.00
Naphthalene	5.00	4.31	86	5.00	3.98	80	67.0-122	8.0	30.00
trans-1,4-Dichloro-2-butene	25.0	24.0	96	25.0	21.8	87	61.0-132	9.6	30.00
1,2,3-Trichlorobenzene	5.00	4.49	90	5.00	4.27	85	68.0-123	5.0	30.00

Print Date: 04/30/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 22943 [VXX/3217]

Blank Spike Lab ID: 68370

Date Analyzed: 04/26/2012 09:36

Spike Duplicate ID: LCSD for HBN 22943 [VXX/3217]

Spike Duplicate Lab ID: 68371

Date Analyzed: 04/26/2012 10:01

Matrix: Water

QC for Samples: 31201159001

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/L)			Spike Duplicate (ug/L)			<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>			
<b>Surrogates</b>									
1,2-Dichloroethane-d4		98			97		84.0-140		
Toluene d8		99			99		82.0-117		
4-Bromofluorobenzene		98			98		85.0-115		

**Batch Information**

Analytical Batch: VMS2154

Analytical Method: SW-846 8260B

Instrument: MSD3

Analyst: BWS

Prep Batch: VXX3217

Prep Method: SW-846 5030B

Prep Date/Time: 04/26/2012 08:28

Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL

Dupe Init Wt./Vol.: 40 mL Extract Vol: 40 mL

**CHAIN OF CUSTODY RECORD**  
**SGS North America Inc.**

**Locations Nationwide**

Alaska	• Maryland
New Jersey	• New York
North Carolina	• Ohio

[www.us.sgs.com](http://www.us.sgs.com)

104181

1	CLIENT: <b>ARCADIS</b>				SGS Reference: <b>3/20/159</b>				PAGE <b>1</b> OF <b>1</b>	
	CONTACT: <b>Aaron Richardson</b> PHONE NO: <b>585 202 4393</b>									
	PROJECT: <b>AVX Myrt Bead</b> SITE/PWSID#:									
	REPORTS TO: <b>Aaron Richardson</b> FAX NO.: ( )									
	INVOICE TO: <b>Aaron Richardson</b> QUOTE #:									
2	P.O. NUMBER: <b>B0007393.0000</b>									
	LAB NO.	SAMPLE IDENTIFICATION		DATE	TIME	MATRIX	No C O N T A I N E R S	SAMPLE TYPE  C= COMP G= GRAB	Preservatives Used  ③  ④ VOC	REMARKS
	<b>DPW-3SD</b>	<b>4/18/12 1723 GW</b>		<b>3</b>	<b>G</b>	<b>x</b>				<b>Same as AVX Concrete</b>
	<b>Trip Blank</b>	<b>Lab Lab</b>		<b>2</b>		<b>k</b>				
5	Collected/Relinquished By: (1)  <i>Robert B. Shuey</i> <i>RLB</i>	Date <b>4/19/12</b>	Time <b>1330</b>	Received By: <b>Fed Ex</b>		Shipping Carrier: <b>Fed Ex</b>	Samples Received Cold? (Circle) <b>YES</b> NO			
	Relinquished By: (2)	Date <b>4/20/12</b>	Time <b>1000</b>	Received By: <b>Judy Jem</b>		Shipping Ticket No:	Temperature°C: <b>2-7°</b>			
	Relinquished By: (3)	Date	Time	Received By:		Special Deliverable Requirements:	Chain of Custody Seal: (Circle)			
	Relinquished By: (4)	Date	Time	Received By:		Special Instructions:	<b>INTACT</b>	<b>BROKEN</b>	<b>ABSENT</b>	
						Requested Turnaround Time:				
						<input type="checkbox"/> <b>RUSH</b>	<input type="checkbox"/> <b>STD</b>	Date Needed		

# SGS North America Inc.

## Sample Receipt Checklist (SRC)

Client: Arcadis Work Order No.: 31201158

- |   |                            |
|---|----------------------------|
| 1. <input checked="" type="checkbox"/> Shipped                            | Notes: _____               |
| <input type="checkbox"/> Hand Delivered                                   | _____                      |
| 2. <input checked="" type="checkbox"/> COC Present on Receipt             | _____                      |
| <input type="checkbox"/> No COC   | _____                      |
| <input type="checkbox"/> Additional Transmittal Forms                     | _____                      |
| 3. <input checked="" type="checkbox"/> Custody Tape on Container          | _____                      |
| <input type="checkbox"/> No Custody Tape                                  | _____                      |
| 4. <input checked="" type="checkbox"/> Samples Intact                     | _____                      |
| <input type="checkbox"/> Samples Broken / Leaking                         | _____                      |
| 5. <input type="checkbox"/> Chilled on Receipt                            | Actual Temp.(s) in °C: 2.7 |
| <input type="checkbox"/> Ambient on Receipt                               | _____                      |
| <input type="checkbox"/> Walk-in on Ice; Coming down to temp.             | _____                      |
| <input type="checkbox"/> Received Outside of Temperature Specifications   | _____                      |
| 6. <input checked="" type="checkbox"/> Sufficient Sample Submitted        | _____                      |
| <input type="checkbox"/> Insufficient Sample Submitted                    | _____                      |
| 7. <input type="checkbox"/> Chlorine absent                               | _____                      |
| <input type="checkbox"/> HNO <sub>3</sub> < 2                             | _____                      |
| <input type="checkbox"/> HCL < 2  | _____                      |
| <input type="checkbox"/> Additional Preservatives verified (see notes)    | _____                      |
| 8. <input checked="" type="checkbox"/> Received Within Holding Time       | _____                      |
| <input type="checkbox"/> Not Received Within Holding Time                 | _____                      |
| 9. <input checked="" type="checkbox"/> No Discrepancies Noted             | _____                      |
| <input type="checkbox"/> Discrepancies Noted                              | _____                      |
| <input type="checkbox"/> NCDENR notified of Discrepancies*                | _____                      |
| 10. <input checked="" type="checkbox"/> No Headspace present in VOC vials | _____                      |
| <input type="checkbox"/> Headspace present in VOC vials >6mm              | _____                      |

Comments: Trip Blanks logged in with AVX Conway project in the same cooler.

Inspected and Logged in by: JJ

Date: Fri-4/20/12 00:00

**Laboratory Qualifiers****Report Definitions**

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

**Qualifier Definitions**

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note: Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

**Sample Summary**

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
MW-19S	31201139001	04/17/2012 08:45	04/18/2012 09:30	Water
PW-7S	31201139002	04/17/2012 09:15	04/18/2012 09:30	Water
MW-17D	31201139003	04/17/2012 10:17	04/18/2012 09:30	Water
MW-2S	31201139004	04/17/2012 10:30	04/18/2012 09:30	Water
MWCC-7	31201139005	04/17/2012 11:00	04/18/2012 09:30	Water
MW-111D	31201139006	04/17/2012 12:27	04/18/2012 09:30	Water
MW-24D	31201139007	04/17/2012 12:47	04/18/2012 09:30	Water
MW-25DD	31201139008	04/17/2012 13:05	04/18/2012 09:30	Water
MW-25D	31201139009	04/17/2012 13:13	04/18/2012 09:30	Water
MW-108D	31201139010	04/17/2012 14:17	04/18/2012 09:30	Water
MW-23D	31201139011	04/17/2012 14:39	04/18/2012 09:30	Water
MW-23DD	31201139012	04/17/2012 14:48	04/18/2012 09:30	Water
MW-21S	31201139013	04/17/2012 15:05	04/18/2012 09:30	Water
MW-21D	31201139014	04/17/2012 15:13	04/18/2012 09:30	Water
PW-1S	31201139015	04/17/2012 15:45	04/18/2012 09:30	Water
MW-14S	31201139016	04/17/2012 15:55	04/18/2012 09:30	Water
DPW-1D	31201139017	04/17/2012 16:50	04/18/2012 09:30	Water
MW-9D	31201139018	04/17/2012 17:02	04/18/2012 09:30	Water
DPW-4SD	31201139019	04/17/2012 17:20	04/18/2012 09:30	Water
Trip Blank	31201139020	04/17/2012 00:00	04/18/2012 09:30	Water

## Case Narrative

### Trip Blank

8260B - This Trip Blank has reported 'J' concentrations for Methylene Chloride and Tetrachloroethene.

## Detectable Results Summary

Client Sample ID: **MW-19S**

Lab Sample ID: 31201139001-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
1,1-Dichloroethane	0.310	ug/L	J
Benzene	0.250	ug/L	J
Naphthalene	0.860	ug/L	J
cis-1,2-Dichloroethene	0.430	ug/L	J
o-Xylene	0.110	ug/L	J

Client Sample ID: **PW-7S**

Lab Sample ID: 31201139002-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
1,1-Dichloroethane	0.990	ug/L	J
1,2,4-Trimethylbenzene	0.150	ug/L	J
Ethyl Benzene	0.920	ug/L	J
Isopropylbenzene (Cumene)	0.110	ug/L	J
Vinyl chloride	1.43	ug/L	
cis-1,2-Dichloroethene	1.73	ug/L	
m,p-Xylene	1.02	ug/L	J
n-Propylbenzene	0.170	ug/L	J
o-Xylene	0.470	ug/L	J

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

Lab Sample ID: 31201139003-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Trichloroethene	6.76	ug/L	
cis-1,2-Dichloroethene	2.95	ug/L	

Client Sample ID: **MW-2S**

Lab Sample ID: 31201139004-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Trichloroethene	648	ug/L	
cis-1,2-Dichloroethene	1240	ug/L	

Client Sample ID: **MW-111D**

Lab Sample ID: 31201139006-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Trichloroethene	9.47	ug/L	
cis-1,2-Dichloroethene	5.53	ug/L	
trans-1,2-Dichloroethene	0.450	ug/L	J

Client Sample ID: **MW-24D**

Lab Sample ID: 31201139007-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Trichloroethene	202	ug/L	
Vinyl chloride	378	ug/L	
cis-1,2-Dichloroethene	3670	ug/L	
trans-1,2-Dichloroethene	27.0	ug/L	J

Client Sample ID: **MW-25DD**

Lab Sample ID: 31201139008-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	3.27	ug/L	J
Toluene	0.790	ug/L	J
Trichloroethene	0.950	ug/L	J
Vinyl chloride	0.190	ug/L	J
cis-1,2-Dichloroethene	2.07	ug/L	

Client Sample ID: **MW-25D**

Lab Sample ID: 31201139009-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
cis-1,2-Dichloroethene	7280	ug/L	

Print Date: 04/02/2012

N.C. Certification # 431

**Detectable Results Summary**

Client Sample ID: MW-108D

Lab Sample ID: 31201139010-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
1,1-Dichloroethane	1.70	ug/L	J
1,1-Dichloroethene	2.20	ug/L	J
Methylene chloride	1.70	ug/L	J
Trichloroethene	231	ug/L	
Vinyl chloride	11.4	ug/L	
cis-1,2-Dichloroethene	345	ug/L	

Client Sample ID: MW-23D

Lab Sample ID: 31201139011-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Trichloroethene	255	ug/L	
Vinyl chloride	10.0	ug/L	J
cis-1,2-Dichloroethene	1520	ug/L	
trans-1,2-Dichloroethene	34.0	ug/L	J

Client Sample ID: MW-23DD

Lab Sample ID: 31201139012-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	40.0	ug/L	J
Trichloroethene	384	ug/L	
Vinyl chloride	768	ug/L	
cis-1,2-Dichloroethene	5300	ug/L	

Client Sample ID: MW-21D

Lab Sample ID: 31201139014-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
1,1-Dichloroethane	2.02	ug/L	
2-Butanone	134	ug/L	
2-Hexanone	1.52	ug/L	J
Acetone	15.1	ug/L	J
Methylene chloride	0.900	ug/L	
Vinyl chloride	47.5	ug/L	
trans-1,2-Dichloroethene	1.26	ug/L	J

Client Sample ID: PW-1S

Lab Sample ID: 31201139015-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
1,1-Dichloroethane	2.92	ug/L	J
1,1-Dichloroethene	1.12	ug/L	J
Methylene chloride	0.840	ug/L	J
Trichloroethene	3.48	ug/L	J
Vinyl chloride	68.6	ug/L	
cis-1,2-Dichloroethene	71.0	ug/L	

Client Sample ID: MW-14S

Lab Sample ID: 31201139016-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Vinyl chloride	3.22	ug/L	
cis-1,2-Dichloroethene	9.19	ug/L	
tert-Butylbenzene	0.610	ug/L	J

Client Sample ID: DPW-1D

Lab Sample ID: 31201139017-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Trichloroethene	2500	ug/L	
cis-1,2-Dichloroethene	8560	ug/L	

**Detectable Results Summary**Client Sample ID: **MW-9D**

Lab Sample ID: 31201139018-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	0.800	ug/L	J
Trichloroethene	0.840	ug/L	J
cis-1,2-Dichloroethene	92.2	ug/L	

Client Sample ID: **DPW-4SD**

Lab Sample ID: 31201139019-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
1,1-Dichloroethane	68.0	ug/L	J
Trichloroethene	848	ug/L	
Vinyl chloride	788	ug/L	
cis-1,2-Dichloroethene	7600	ug/L	

Client Sample ID: **Trip Blank**

Lab Sample ID: 31201139020-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	0.220	ug/L	J
Tetrachloroethene	0.170	ug/L	J

## Results of MW-19S

Client Sample ID: MW-19S

Client Project ID: AVX MB

Lab Sample ID: 31201139001-B

Lab Project ID: 31201139

Collection Date: 04/17/2012 08:45

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/25/2012 14:39
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/25/2012 14:39
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/25/2012 14:39
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/25/2012 14:39
1,1-Dichloroethane	0.310	J	0.165	1.00	ug/L	1	04/25/2012 14:39
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/25/2012 14:39
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/25/2012 14:39
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 14:39
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/25/2012 14:39
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/25/2012 14:39
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/25/2012 14:39
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/25/2012 14:39
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/25/2012 14:39
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/25/2012 14:39
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/25/2012 14:39
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/25/2012 14:39
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 14:39
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/25/2012 14:39
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/25/2012 14:39
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/25/2012 14:39
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/25/2012 14:39
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/25/2012 14:39
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/25/2012 14:39
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/25/2012 14:39
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/25/2012 14:39
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 14:39
4-Methyl-2-pantanone	ND	U	0.558	5.00	ug/L	1	04/25/2012 14:39
Acetone	ND	U	0.864	25.0	ug/L	1	04/25/2012 14:39
Benzene	0.250	J	0.113	1.00	ug/L	1	04/25/2012 14:39
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 14:39
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/25/2012 14:39
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/25/2012 14:39
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/25/2012 14:39
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/25/2012 14:39
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 14:39
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/25/2012 14:39
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/25/2012 14:39
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/25/2012 14:39
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/25/2012 14:39
Chloroform	ND	U	0.139	1.00	ug/L	1	04/25/2012 14:39
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/25/2012 14:39
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/25/2012 14:39
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/25/2012 14:39

Print Date: 04/30/2012

N.C. Certification # A61

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## Results of MW-19S

Client Sample ID: MW-19S  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139001-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 08:45  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/25/2012 14:39
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/25/2012 14:39
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/25/2012 14:39
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/25/2012 14:39
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/25/2012 14:39
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/25/2012 14:39
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/25/2012 14:39
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/25/2012 14:39
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/25/2012 14:39
Naphthalene	0.860	J	0.0855	1.00	ug/L	1	04/25/2012 14:39
Styrene	ND	U	0.102	1.00	ug/L	1	04/25/2012 14:39
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/25/2012 14:39
Toluene	ND	U	0.133	1.00	ug/L	1	04/25/2012 14:39
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/25/2012 14:39
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/25/2012 14:39
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	04/25/2012 14:39
cis-1,2-Dichloroethene	0.430	J	0.136	1.00	ug/L	1	04/25/2012 14:39
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/25/2012 14:39
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 14:39
o-Xylene	0.110	J	0.0874	1.00	ug/L	1	04/25/2012 14:39
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/25/2012 14:39
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/25/2012 14:39
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 14:39
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/25/2012 14:39
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/25/2012 14:39

## Surrogates

1,2-Dichloroethane-d4	101	64.0-140	%	1	04/25/2012 14:39
4-Bromofluorobenzene	100	85.0-115	%	1	04/25/2012 14:39
Toluene d8	98.0	82.0-117	%	1	04/25/2012 14:39

## Batch Information

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: QVO  
 Analytical Date/Time: 04/25/2012 14:39

Prep Batch: VXX3212  
 Prep Method: SW-846 6030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of PW-7S

Client Sample ID: PW-7S  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139002-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 09:15  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/24/2012 16:35
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/24/2012 16:35
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/24/2012 16:35
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/24/2012 16:35
1,1-Dichloroethane	0.990	J	0.165	1.00	ug/L	1	04/24/2012 16:35
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/24/2012 16:35
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/24/2012 16:35
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 16:35
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/24/2012 16:35
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/24/2012 16:35
1,2,4-Trimethylbenzene	0.150	J	0.0961	1.00	ug/L	1	04/24/2012 16:35
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/24/2012 16:35
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/24/2012 16:35
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/24/2012 16:35
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/24/2012 16:35
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/24/2012 16:35
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 16:35
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/24/2012 16:35
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/24/2012 16:35
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/24/2012 16:35
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/24/2012 16:35
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/24/2012 16:35
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/24/2012 16:35
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/24/2012 16:35
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/24/2012 16:35
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 16:35
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/24/2012 16:35
Acetone	ND	U	0.864	25.0	ug/L	1	04/24/2012 16:35
Benzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 16:35
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 16:35
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/24/2012 16:35
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/24/2012 16:35
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/24/2012 16:35
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/24/2012 16:35
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 16:35
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/24/2012 16:35
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/24/2012 16:35
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/24/2012 16:35
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/24/2012 16:35
Chloroform	ND	U	0.139	1.00	ug/L	1	04/24/2012 16:35
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/24/2012 16:35
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/24/2012 16:35
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/24/2012 16:35

Print Date: 04/30/2012

N.C. Certification # 481

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## Results of PW-7S

Client Sample ID: PW-7S  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139002-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 09:15  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/24/2012 16:35
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/24/2012 16:35
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/24/2012 16:35
Dilisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/24/2012 16:35
Ethyl Benzene	0.920	J	0.0877	1.00	ug/L	1	04/24/2012 16:35
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/24/2012 16:35
Isopropylbenzene (Cumene)	0.110	J	0.0869	1.00	ug/L	1	04/24/2012 16:35
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/24/2012 16:35
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/24/2012 16:35
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 16:35
Styrene	ND	U	0.102	1.00	ug/L	1	04/24/2012 16:35
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/24/2012 16:35
Toluene	ND	U	0.133	1.00	ug/L	1	04/24/2012 16:35
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/24/2012 16:35
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/24/2012 16:35
Vinyl chloride	1.43		0.124	1.00	ug/L	1	04/24/2012 16:35
cis-1,2-Dichloroethene	1.73		0.136	1.00	ug/L	1	04/24/2012 16:35
m,p-Xylene	1.02	J	0.182	2.00	ug/L	1	04/24/2012 16:35
n-Propylbenzene	0.170	J	0.113	1.00	ug/L	1	04/24/2012 16:35
o-Xylene	0.470	J	0.0874	1.00	ug/L	1	04/24/2012 16:35
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/24/2012 16:35
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/24/2012 16:35
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 16:35
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/24/2012 16:35
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/24/2012 16:35

## Surrogates

1,2-Dichloroethane-d4	98.0	64.0-140	%	†	04/24/2012 16:35
4-Bromofluorobenzene	103	85.0-115	%	†	04/24/2012 16:35
Toluene d8	104	82.0-117	%	†	04/24/2012 16:35

## Batch Information

Analytical Batch: VMS2145  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 04/24/2012 16:35

Prep Batch: VXX3205  
 Prep Method: SW-846 6030B  
 Prep Date/Time: 04/24/2012 10:26  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of MW-17D

Client Sample ID: MW-17D

Collection Date: 04/17/2012 10:17

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139003-A

Matrix: Water

Lab Project ID: 31201139

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/24/2012 17:00
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/24/2012 17:00
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/24/2012 17:00
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/24/2012 17:00
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/24/2012 17:00
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/24/2012 17:00
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/24/2012 17:00
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:00
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/24/2012 17:00
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/24/2012 17:00
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/24/2012 17:00
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/24/2012 17:00
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/24/2012 17:00
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/24/2012 17:00
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/24/2012 17:00
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/24/2012 17:00
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:00
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/24/2012 17:00
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/24/2012 17:00
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/24/2012 17:00
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/24/2012 17:00
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/24/2012 17:00
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:00
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/24/2012 17:00
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/24/2012 17:00
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 17:00
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/24/2012 17:00
Acetone	ND	U	0.864	25.0	ug/L	1	04/24/2012 17:00
Benzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:00
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:00
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/24/2012 17:00
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:00
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/24/2012 17:00
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/24/2012 17:00
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 17:00
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/24/2012 17:00
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/24/2012 17:00
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/24/2012 17:00
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/24/2012 17:00
Chloroform	ND	U	0.139	1.00	ug/L	1	04/24/2012 17:00
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/24/2012 17:00
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/24/2012 17:00
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/24/2012 17:00

Print Date: 04/30/2012

N.C. Certification # 48

## Results of MW-17D

Client Sample ID: MW-17D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139003-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 10:17  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/24/2012 17:00
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/24/2012 17:00
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/24/2012 17:00
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/24/2012 17:00
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/24/2012 17:00
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/24/2012 17:00
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/24/2012 17:00
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/24/2012 17:00
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/24/2012 17:00
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 17:00
Styrene	ND	U	0.102	1.00	ug/L	1	04/24/2012 17:00
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/24/2012 17:00
Toluene	ND	U	0.133	1.00	ug/L	1	04/24/2012 17:00
Trichloroethene	6.76		0.125	1.00	ug/L	1	04/24/2012 17:00
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/24/2012 17:00
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	04/24/2012 17:00
cis-1,2-Dichloroethene	2.95		0.136	1.00	ug/L	1	04/24/2012 17:00
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/24/2012 17:00
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:00
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/24/2012 17:00
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/24/2012 17:00
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/24/2012 17:00
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 17:00
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/24/2012 17:00
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/24/2012 17:00

## Surrogates

1,2-Dichloroethane-d4	95.0		64.0-140	%	1	04/24/2012 17:00
4-Bromofluorobenzene	103		85.0-115	%	1	04/24/2012 17:00
Toluene d8	103		82.0-117	%	1	04/24/2012 17:00

## Batch Information

Analytical Batch: VMS2145  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 04/24/2012 17:00

Prep Batch: VXX3205  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/24/2012 10:26  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol.: 40 mL

## Results of MW-2S

Client Sample ID: MW-2S

Client Project ID: AVX MB

Lab Sample ID: 31201139004-A

Lab Project ID: 31201139

Collection Date: 04/17/2012 10:30

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	4.16	40.0	ug/L	40	04/24/2012 18:39
1,1,1-Trichloroethane	ND	U	4.92	40.0	ug/L	40	04/24/2012 18:39
1,1,2,2-Tetrachloroethane	ND	U	6.24	40.0	ug/L	40	04/24/2012 18:39
1,1,2-Trichloroethane	ND	U	5.04	40.0	ug/L	40	04/24/2012 18:39
1,1-Dichloroethane	ND	U	6.60	40.0	ug/L	40	04/24/2012 18:39
1,1-Dichloroethene	ND	U	8.48	40.0	ug/L	40	04/24/2012 18:39
1,1-Dichloropropene	ND	U	3.45	40.0	ug/L	40	04/24/2012 18:39
1,2,3-Trichlorobenzene	ND	U	4.40	40.0	ug/L	40	04/24/2012 18:39
1,2,3-Trichloropropane	ND	U	8.48	40.0	ug/L	40	04/24/2012 18:39
1,2,4-Trichlorobenzene	ND	U	3.65	40.0	ug/L	40	04/24/2012 18:39
1,2,4-Trimethylbenzene	ND	U	3.84	40.0	ug/L	40	04/24/2012 18:39
1,2-Dibromo-3-chloropropane	ND	U	29.9	200	ug/L	40	04/24/2012 18:39
1,2-Dibromoethane	ND	U	4.80	40.0	ug/L	40	04/24/2012 18:39
1,2-Dichlorobenzene	ND	U	5.48	40.0	ug/L	40	04/24/2012 18:39
1,2-Dichloroethane	ND	U	6.68	40.0	ug/L	40	04/24/2012 18:39
1,2-Dichloropropane	ND	U	6.52	40.0	ug/L	40	04/24/2012 18:39
1,3,5-Trimethylbenzene	ND	U	4.52	40.0	ug/L	40	04/24/2012 18:39
1,3-Dichlorobenzene	ND	U	4.12	40.0	ug/L	40	04/24/2012 18:39
1,3-Dichloropropane	ND	U	5.20	40.0	ug/L	40	04/24/2012 18:39
1,4-Dichlorobenzene	ND	U	5.20	40.0	ug/L	40	04/24/2012 18:39
2,2-Dichloropropane	ND	U	15.7	40.0	ug/L	40	04/24/2012 18:39
2-Butanone	ND	U	28.9	1000	ug/L	40	04/24/2012 18:39
2-Chlorotoluene	ND	U	4.52	40.0	ug/L	40	04/24/2012 18:39
2-Hexanone	ND	U	29.1	200	ug/L	40	04/24/2012 18:39
4-Chlorotoluene	ND	U	5.00	40.0	ug/L	40	04/24/2012 18:39
4-Isopropyltoluene	ND	U	3.08	40.0	ug/L	40	04/24/2012 18:39
4-Methyl-2-pentanone	ND	U	22.3	200	ug/L	40	04/24/2012 18:39
Acetone	ND	U	34.6	1000	ug/L	40	04/24/2012 18:39
Benzene	ND	U	4.52	40.0	ug/L	40	04/24/2012 18:39
Bromobenzene	ND	U	4.40	40.0	ug/L	40	04/24/2012 18:39
Bromochloromethane	ND	U	8.44	40.0	ug/L	40	04/24/2012 18:39
Bromodichloromethane	ND	U	4.40	40.0	ug/L	40	04/24/2012 18:39
Bromoform	ND	U	3.90	40.0	ug/L	40	04/24/2012 18:39
Bromomethane	ND	U	9.48	40.0	ug/L	40	04/24/2012 18:39
n-Butylbenzene	ND	U	3.08	40.0	ug/L	40	04/24/2012 18:39
Carbon disulfide	ND	U	4.24	40.0	ug/L	40	04/24/2012 18:39
Carbon tetrachloride	ND	U	4.04	40.0	ug/L	40	04/24/2012 18:39
Chlorobenzene	ND	U	4.64	40.0	ug/L	40	04/24/2012 18:39
Chloroethane	ND	U	12.4	40.0	ug/L	40	04/24/2012 18:39
Chloroform	ND	U	5.56	40.0	ug/L	40	04/24/2012 18:39
Chloromethane	ND	U	17.9	40.0	ug/L	40	04/24/2012 18:39
Dibromochloromethane	ND	U	5.36	40.0	ug/L	40	04/24/2012 18:39
Dibromomethane	ND	U	6.72	40.0	ug/L	40	04/24/2012 18:39

Print Date: 04/30/2012

N.C. Certification # 48

## Results of MW-2S

Client Sample ID: MW-2S  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139004-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 10:30  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dichlorodifluoromethane	ND	U	6.84	200	ug/L	40	04/24/2012 18:39
cis-1,3-Dichloropropene	ND	U	3.07	40.0	ug/L	40	04/24/2012 18:39
trans-1,3-Dichloropropene	ND	U	3.45	40.0	ug/L	40	04/24/2012 18:39
Diisopropyl Ether	ND	U	11.8	40.0	ug/L	40	04/24/2012 18:39
Ethyl Benzene	ND	U	3.51	40.0	ug/L	40	04/24/2012 18:39
Hexachlorobutadiene	ND	U	3.17	40.0	ug/L	40	04/24/2012 18:39
Isopropylbenzene (Cumene)	ND	U	3.48	40.0	ug/L	40	04/24/2012 18:39
Methyl iodide	ND	U	4.60	40.0	ug/L	40	04/24/2012 18:39
Methylene chloride	ND	U	6.08	200	ug/L	40	04/24/2012 18:39
Naphthalene	ND	U	3.42	40.0	ug/L	40	04/24/2012 18:39
Styrene	ND	U	4.08	40.0	ug/L	40	04/24/2012 18:39
Tetrachloroethene	ND	U	6.20	40.0	ug/L	40	04/24/2012 18:39
Toluene	ND	U	5.32	40.0	ug/L	40	04/24/2012 18:39
Trichloroethene	648		5.00	40.0	ug/L	40	04/24/2012 18:39
Trichlorofluoromethane	ND	U	5.48	40.0	ug/L	40	04/24/2012 18:39
Vinyl chloride	ND	U	4.96	40.0	ug/L	40	04/24/2012 18:39
cis-1,2-Dichloroethene	1240		5.44	40.0	ug/L	40	04/24/2012 18:39
m,p-Xylene	ND	U	7.28	80.0	ug/L	40	04/24/2012 18:39
n-Propylbenzene	ND	U	4.52	40.0	ug/L	40	04/24/2012 18:39
o-Xylene	ND	U	3.50	40.0	ug/L	40	04/24/2012 18:39
sec-Butylbenzene	ND	U	4.48	40.0	ug/L	40	04/24/2012 18:39
tert-Butyl methyl ether (MTBE)	ND	U	5.76	40.0	ug/L	40	04/24/2012 18:39
tert-Butylbenzene	ND	U	3.42	40.0	ug/L	40	04/24/2012 18:39
trans-1,2-Dichloroethene	ND	U	8.92	40.0	ug/L	40	04/24/2012 18:39
trans-1,4-Dichloro-2-butene	ND	U	16.6	200	ug/L	40	04/24/2012 18:39
<b>Surrogates</b>							
1,2-Dichloroethane-d4	98.0			64.0-140	%	40	04/24/2012 18:39
4-Bromofluorobenzene	102			85.0-115	%	40	04/24/2012 18:39
Toluene d8	104			82.0-117	%	40	04/24/2012 18:39

## Batch Information

Analytical Batch: VMS2145  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 04/24/2012 18:39

Prep Batch: VXX1205  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/24/2012 10:26  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract/Vol: 40 mL

## Results of MWCC-7

Client Sample ID: MWCC-7

Client Project ID: AVX MB

Lab Sample ID: 31201139005-A

Lab Project ID: 31201139

Collection Date: 04/17/2012 11:00

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/24/2012 17:25
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/24/2012 17:25
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/24/2012 17:25
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/24/2012 17:25
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/24/2012 17:25
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/24/2012 17:25
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/24/2012 17:25
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:25
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/24/2012 17:25
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/24/2012 17:25
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/24/2012 17:25
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/24/2012 17:25
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/24/2012 17:25
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/24/2012 17:25
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/24/2012 17:25
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/24/2012 17:25
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:25
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/24/2012 17:25
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/24/2012 17:25
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/24/2012 17:25
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/24/2012 17:25
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/24/2012 17:25
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:25
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/24/2012 17:25
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/24/2012 17:25
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 17:25
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/24/2012 17:25
Acetone	ND	U	0.864	25.0	ug/L	1	04/24/2012 17:25
Benzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:25
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:25
Bromochlormethane	ND	U	0.211	1.00	ug/L	1	04/24/2012 17:25
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:25
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/24/2012 17:25
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/24/2012 17:25
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 17:25
Carbon disulfide	ND	U	0.105	1.00	ug/L	1	04/24/2012 17:25
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/24/2012 17:25
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/24/2012 17:25
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/24/2012 17:25
Chloroform	ND	U	0.139	1.00	ug/L	1	04/24/2012 17:25
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/24/2012 17:25
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/24/2012 17:25
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/24/2012 17:25

Print Date: 04/30/2012

N.C. Certification # 46

## Results of MWCC-7

Client Sample ID: MWCC-7

Client Project ID: AVX MB

Lab Sample ID: 31201139005-A

Lab Project ID: 31201139

Collection Date: 04/17/2012 11:00

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/24/2012 17:25
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/24/2012 17:25
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/24/2012 17:25
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/24/2012 17:25
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/24/2012 17:25
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/24/2012 17:25
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/24/2012 17:25
Methyl Iodide	ND	U	0.115	1.00	ug/L	1	04/24/2012 17:25
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/24/2012 17:25
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 17:25
Styrene	ND	U	0.102	1.00	ug/L	1	04/24/2012 17:25
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/24/2012 17:25
Toluene	ND	U	0.133	1.00	ug/L	1	04/24/2012 17:25
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/24/2012 17:25
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/24/2012 17:25
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	04/24/2012 17:25
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1	04/24/2012 17:25
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/24/2012 17:25
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:25
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/24/2012 17:25
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/24/2012 17:25
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/24/2012 17:25
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 17:25
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/24/2012 17:25
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/24/2012 17:25

## Surrogates

1,2-Dichloroethane-d4	96.0	64.0-140	%	1	04/24/2012 17:25
4-Bromofluorobenzene	104	85.0-115	%	1	04/24/2012 17:25
Toluene d8	102	82.0-117	%	1	04/24/2012 17:25

## Batch Information

Analytical Batch: VMS2145

Prep Batch: VXX3205

Analytical Method: SW-846 8260B

Prep Method: SW-846-5030B

Instrument: MSD3

Prep Date/Time: 04/24/2012 10:26

Analyst: BWS

Prep Initial Vol./vol.: 40 mL

Analytical Date/Time: 04/24/2012 17:25

Prep Extract Vol.: 40 mL

## Results of MW-111D

Client Sample ID: MW-111D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139006-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 12:27  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/24/2012 17:49
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/24/2012 17:49
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/24/2012 17:49
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/24/2012 17:49
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/24/2012 17:49
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/24/2012 17:49
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/24/2012 17:49
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:49
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/24/2012 17:49
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/24/2012 17:49
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/24/2012 17:49
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/24/2012 17:49
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/24/2012 17:49
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/24/2012 17:49
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/24/2012 17:49
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/24/2012 17:49
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:49
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/24/2012 17:49
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/24/2012 17:49
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/24/2012 17:49
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/24/2012 17:49
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/24/2012 17:49
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:49
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/24/2012 17:49
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/24/2012 17:49
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 17:49
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/24/2012 17:49
Acetone	ND	U	0.864	25.0	ug/L	1	04/24/2012 17:49
Benzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:49
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:49
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/24/2012 17:49
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/24/2012 17:49
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/24/2012 17:49
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/24/2012 17:49
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/24/2012 17:49
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/24/2012 17:49
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/24/2012 17:49
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/24/2012 17:49
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/24/2012 17:49
Chloroform	ND	U	0.139	1.00	ug/L	1	04/24/2012 17:49
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/24/2012 17:49
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/24/2012 17:49
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/24/2012 17:49

Print Date: 04/30/2012

N.C. Certification # 481

**Results of MW-111D**

Client Sample ID: MW-111D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139006-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 12:27  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/24/2012 17:49
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/24/2012 17:49
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/24/2012 17:49
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/24/2012 17:49
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/24/2012 17:49
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/24/2012 17:49
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/24/2012 17:49
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/24/2012 17:49
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/24/2012 17:49
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 17:49
Styrene	ND	U	0.102	1.00	ug/L	1	04/24/2012 17:49
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/24/2012 17:49
Toluene	ND	U	0.133	1.00	ug/L	1	04/24/2012 17:49
Trichloroethene	9.47		0.125	1.00	ug/L	1	04/24/2012 17:49
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/24/2012 17:49
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	04/24/2012 17:49
cis-1,2-Dichloroethene	5.53		0.136	1.00	ug/L	1	04/24/2012 17:49
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/24/2012 17:49
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/24/2012 17:49
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/24/2012 17:49
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/24/2012 17:49
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/24/2012 17:49
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/24/2012 17:49
trans-1,2-Dichloroethene	0.450	J	0.223	1.00	ug/L	1	04/24/2012 17:49
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/24/2012 17:49

**Surrogates**

1,2-Dichloroethane-d4	97.0		64.0-140	%	1	04/24/2012 17:49
4-Bromofluorobenzene	103		85.0-115	%	1	04/24/2012 17:49
Toluene d8	104		82.0-117	%	1	04/24/2012 17:49

**Batch Information**

Analytical Batch: VMS2145  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 04/24/2012 17:49

Prep Batch: VXX3205  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/24/2012 10:26  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of MW-24D

Client Sample ID: MW-24D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139007-A  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 12:47  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	10.4	100	ug/L	100	04/24/2012 19:04
1,1,1-Trichloroethane	ND	U	12.3	100	ug/L	100	04/24/2012 19:04
1,1,2,2-Tetrachloroethane	ND	U	15.6	100	ug/L	100	04/24/2012 19:04
1,1,2-Trichloroethane	ND	U	12.6	100	ug/L	100	04/24/2012 19:04
1,1-Dichloroethane	ND	U	16.5	100	ug/L	100	04/24/2012 19:04
1,1-Dichloroethene	ND	U	21.2	100	ug/L	100	04/24/2012 19:04
1,1-Dichloropropene	ND	U	8.63	100	ug/L	100	04/24/2012 19:04
1,2,3-Trichlorobenzene	ND	U	11.0	100	ug/L	100	04/24/2012 19:04
1,2,3-Trichloropropane	ND	U	21.2	100	ug/L	100	04/24/2012 19:04
1,2,4-Trichlorobenzene	ND	U	9.13	100	ug/L	100	04/24/2012 19:04
1,2,4-Trimethylbenzene	ND	U	9.61	100	ug/L	100	04/24/2012 19:04
1,2-Dibromo-3-chloropropane	ND	U	74.8	500	ug/L	100	04/24/2012 19:04
1,2-Dibromoethane	ND	U	12.0	100	ug/L	100	04/24/2012 19:04
1,2-Dichlorobenzene	ND	U	13.7	100	ug/L	100	04/24/2012 19:04
1,2-Dichloroethane	ND	U	16.7	100	ug/L	100	04/24/2012 19:04
1,2-Dichloropropane	ND	U	16.3	100	ug/L	100	04/24/2012 19:04
1,3,5-Trimethylbenzene	ND	U	11.3	100	ug/L	100	04/24/2012 19:04
1,3-Dichlorobenzene	ND	U	10.3	100	ug/L	100	04/24/2012 19:04
1,3-Dichloropropane	ND	U	13.0	100	ug/L	100	04/24/2012 19:04
1,4-Dichlorobenzene	ND	U	13.0	100	ug/L	100	04/24/2012 19:04
2,2-Dichloropropane	ND	U	39.3	100	ug/L	100	04/24/2012 19:04
2-Butanone	ND	U	72.3	2500	ug/L	100	04/24/2012 19:04
2-Chlorotoluene	ND	U	11.3	100	ug/L	100	04/24/2012 19:04
2-Hexanone	ND	U	72.8	500	ug/L	100	04/24/2012 19:04
4-Chlorotoluene	ND	U	12.5	100	ug/L	100	04/24/2012 19:04
4-Isopropyltoluene	ND	U	7.69	100	ug/L	100	04/24/2012 19:04
4-Methyl-2-pentanone	ND	U	55.8	500	ug/L	100	04/24/2012 19:04
Acetone	ND	U	86.4	2500	ug/L	100	04/24/2012 19:04
Benzene	ND	U	11.3	100	ug/L	100	04/24/2012 19:04
Bromobenzene	ND	U	11.0	100	ug/L	100	04/24/2012 19:04
Bromochloromethane	ND	U	21.1	100	ug/L	100	04/24/2012 19:04
Bromodichloromethane	ND	U	11.0	100	ug/L	100	04/24/2012 19:04
Bromoform	ND	U	9.74	100	ug/L	100	04/24/2012 19:04
Bromomethane	ND	U	23.7	100	ug/L	100	04/24/2012 19:04
n-Butylbenzene	ND	U	7.69	100	ug/L	100	04/24/2012 19:04
Carbon disulfide	ND	U	10.6	100	ug/L	100	04/24/2012 19:04
Carbon tetrachloride	ND	U	10.1	100	ug/L	100	04/24/2012 19:04
Chlorobenzene	ND	U	11.6	100	ug/L	100	04/24/2012 19:04
Chloroethane	ND	U	31.1	100	ug/L	100	04/24/2012 19:04
Chloroform	ND	U	13.9	100	ug/L	100	04/24/2012 19:04
Chloromethane	ND	U	44.8	100	ug/L	100	04/24/2012 19:04
Dibromochloromethane	ND	U	13.4	100	ug/L	100	04/24/2012 19:04
Dibromomethane	ND	U	16.8	100	ug/L	100	04/24/2012 19:04

Print Date: 04/30/2012

N.C. Certification # 461

## Results of MW-24D

Client Sample ID: MW-24D

Client Project ID: AVX MB

Lab Sample ID: 31201139007-A

Lab Project ID: 31201139

Collection Date: 04/17/2012 12:47

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	17.1	500	ug/L	100	04/24/2012 19:04
cis-1,3-Dichloropropene	ND	U	7.67	100	ug/L	100	04/24/2012 19:04
trans-1,3-Dichloropropene	ND	U	8.62	100	ug/L	100	04/24/2012 19:04
Diisopropyl Ether	ND	U	29.4	100	ug/L	100	04/24/2012 19:04
Ethyl Benzene	ND	U	8.77	100	ug/L	100	04/24/2012 19:04
Hexachlorobutadiene	ND	U	7.92	100	ug/L	100	04/24/2012 19:04
Isopropylbenzene (Cumene)	ND	U	8.69	100	ug/L	100	04/24/2012 19:04
Methyl Iodide	ND	U	11.5	100	ug/L	100	04/24/2012 19:04
Methylene chloride	ND	U	15.2	500	ug/L	100	04/24/2012 19:04
Naphthalene	ND	U	8.55	100	ug/L	100	04/24/2012 19:04
Styrene	ND	U	10.2	100	ug/L	100	04/24/2012 19:04
Tetrachloroethene	ND	U	15.5	100	ug/L	100	04/24/2012 19:04
Toluene	ND	U	13.3	100	ug/L	100	04/24/2012 19:04
Trichloroethene	202		12.5	100	ug/L	100	04/24/2012 19:04
Trichlorofluoromethane	ND	U	13.7	100	ug/L	100	04/24/2012 19:04
Vinyl chloride	378		12.4	100	ug/L	100	04/24/2012 19:04
cis-1,2-Dichloroethene	3670		13.6	100	ug/L	100	04/24/2012 19:04
m,p-Xylene	ND	U	18.2	200	ug/L	100	04/24/2012 19:04
n-Propylbenzene	ND	U	11.3	100	ug/L	100	04/24/2012 19:04
o-Xylene	ND	U	8.74	100	ug/L	100	04/24/2012 19:04
sec-Butylbenzene	ND	U	11.2	100	ug/L	100	04/24/2012 19:04
tert-Butyl methyl ether (MTBE)	ND	U	14.4	100	ug/L	100	04/24/2012 19:04
tert-Butylbenzene	ND	U	8.55	100	ug/L	100	04/24/2012 19:04
trans-1,2-Dichloroethene	27.0	J	22.3	100	ug/L	100	04/24/2012 19:04
trans-1,4-Dichloro-2-butene	ND	U	41.4	500	ug/L	100	04/24/2012 19:04

## Surrogates

1,2-Dichloroethane-d4	98.0	64.0-140	%	100	04/24/2012 19:04
4-Bromofluorobenzene	105	85.0-115	%	100	04/24/2012 19:04
Toluene d8	103	82.0-117	%	100	04/24/2012 19:04

## Batch Information

Analytical Batch: VMS2145

Analytical Method: SW-846 8260B

Instrument: MSD3

Analyst: BWS

Analytical Date/Time: 04/24/2012 19:04

Prep Batch: VXX3205

Prep Method: SW-846 5030B

Prep Date/Time: 04/24/2012 10:26

Prep Initial Wt./Vol.: 40 mL

Prep Extract Vol.: 40 mL

**Results of MW-25DD**

Client Sample ID: MW-25DD  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139008-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 13:05  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/25/2012 15:03
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/25/2012 15:03
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/25/2012 15:03
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/25/2012 15:03
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/25/2012 15:03
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/25/2012 15:03
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/25/2012 15:03
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:03
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/25/2012 15:03
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/25/2012 15:03
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/25/2012 15:03
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/25/2012 15:03
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/25/2012 15:03
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/25/2012 15:03
1,2-Dichloroethane	ND	U	0.187	1.00	ug/L	1	04/25/2012 15:03
1,2-Dichloropropane	ND	U	0.183	1.00	ug/L	1	04/25/2012 15:03
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:03
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/25/2012 15:03
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/25/2012 15:03
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/25/2012 15:03
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/25/2012 15:03
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/25/2012 15:03
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:03
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/25/2012 15:03
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/25/2012 15:03
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 15:03
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/25/2012 15:03
Acetone	3.27	J	0.864	25.0	ug/L	1	04/25/2012 15:03
Benzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:03
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:03
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/25/2012 15:03
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:03
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/25/2012 15:03
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/25/2012 15:03
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 15:03
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/25/2012 15:03
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/25/2012 15:03
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/25/2012 15:03
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/25/2012 15:03
Chloroform	ND	U	0.139	1.00	ug/L	1	04/25/2012 15:03
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/25/2012 15:03
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/25/2012 15:03
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/25/2012 15:03

Print Date: 04/30/2012

N.C. Certification # 48

**Results of MW-25DD**

Client Sample ID: MW-25DD  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139008-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 13:05  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/25/2012 15:03
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/25/2012 15:03
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/25/2012 15:03
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/25/2012 15:03
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/25/2012 15:03
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/25/2012 15:03
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/25/2012 15:03
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/25/2012 15:03
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/25/2012 15:03
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 15:03
Styrene	ND	U	0.102	1.00	ug/L	1	04/25/2012 15:03
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/25/2012 15:03
Toluene	0.790	J	0.133	1.00	ug/L	1	04/25/2012 15:03
Trichloroethene	0.950	J	0.125	1.00	ug/L	1	04/25/2012 15:03
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/25/2012 15:03
Vinyl chloride	0.190	J	0.124	1.00	ug/L	1	04/25/2012 15:03
cis-1,2-Dichloroethene	2.07		0.136	1.00	ug/L	1	04/25/2012 15:03
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/25/2012 15:03
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:03
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/25/2012 15:03
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/25/2012 15:03
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/25/2012 15:03
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 15:03
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/25/2012 15:03
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/25/2012 15:03
<b>Surrogates</b>							
1,2-Dichloroethane-d4	100			64.0-140	%	1	04/25/2012 15:03
4-Bromofluorobenzene	100			85.0-115	%	1	04/25/2012 15:03
Toluene d8	98.0			82.0-117	%	1	04/25/2012 15:03

**Batch Information**

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 15:03

Prep Batch: VXX3212  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of MW-25D

Client Sample ID: MW-25D

Client Project ID: AVX MB

Lab Sample ID: 31201139009-B

Lab Project ID: 31201139

Collection Date: 04/17/2012 13:13

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	41.6	400	ug/L	400	04/25/2012 18:42
1,1,1-Trichloroethane	ND	U	49.2	400	ug/L	400	04/25/2012 18:42
1,1,2,2-Tetrachloroethane	ND	U	62.4	400	ug/L	400	04/25/2012 18:42
1,1,2-Trichloroethane	ND	U	50.4	400	ug/L	400	04/25/2012 18:42
1,1-Dichloroethane	ND	U	66.0	400	ug/L	400	04/25/2012 18:42
1,1-Dichloroethene	ND	U	84.8	400	ug/L	400	04/25/2012 18:42
1,1-Dichloropropene	ND	U	34.5	400	ug/L	400	04/25/2012 18:42
1,2,3-Trichlorobenzene	ND	U	44.0	400	ug/L	400	04/25/2012 18:42
1,2,3-Trichloropropane	ND	U	84.8	400	ug/L	400	04/25/2012 18:42
1,2,4-Trichlorobenzene	ND	U	36.5	400	ug/L	400	04/25/2012 18:42
1,2,4-Trimethylbenzene	ND	U	38.4	400	ug/L	400	04/25/2012 18:42
1,2-Dibromo-3-chloropropane	ND	U	299	2000	ug/L	400	04/25/2012 18:42
1,2-Dibromoethane	ND	U	48.0	400	ug/L	400	04/25/2012 18:42
1,2-Dichlorobenzene	ND	U	54.8	400	ug/L	400	04/25/2012 18:42
1,2-Dichloroethane	ND	U	66.8	400	ug/L	400	04/25/2012 18:42
1,2-Dichloropropane	ND	U	65.2	400	ug/L	400	04/25/2012 18:42
1,3,5-Trimethylbenzene	ND	U	45.2	400	ug/L	400	04/25/2012 18:42
1,3-Dichlorobenzene	ND	U	41.2	400	ug/L	400	04/25/2012 18:42
1,3-Dichloropropane	ND	U	52.0	400	ug/L	400	04/25/2012 18:42
1,4-Dichlorobenzene	ND	U	52.0	400	ug/L	400	04/25/2012 18:42
2,2-Dichloropropane	ND	U	157	400	ug/L	400	04/25/2012 18:42
2-Butanone	ND	U	289	10000	ug/L	400	04/25/2012 18:42
2-Chlorotoluene	ND	U	45.2	400	ug/L	400	04/25/2012 18:42
2-Hexanone	ND	U	291	2000	ug/L	400	04/25/2012 18:42
4-Chlorotoluene	ND	U	50.0	400	ug/L	400	04/25/2012 18:42
4-Isopropyltoluene	ND	U	30.8	400	ug/L	400	04/25/2012 18:42
4-Methyl-2-pentanone	ND	U	223	2000	ug/L	400	04/25/2012 18:42
Acetone	ND	U	346	10000	ug/L	400	04/25/2012 18:42
Benzene	ND	U	45.2	400	ug/L	400	04/25/2012 18:42
Bromobenzene	ND	U	44.0	400	ug/L	400	04/25/2012 18:42
Bromochloromethane	ND	U	84.4	400	ug/L	400	04/25/2012 18:42
Bromodichloromethane	ND	U	44.0	400	ug/L	400	04/25/2012 18:42
Bromoform	ND	U	39.0	400	ug/L	400	04/25/2012 18:42
Bromomethane	ND	U	94.8	400	ug/L	400	04/25/2012 18:42
n-Butylbenzene	ND	U	30.8	400	ug/L	400	04/25/2012 18:42
Carbon disulfide	ND	U	42.4	400	ug/L	400	04/25/2012 18:42
Carbon tetrachloride	ND	U	40.4	400	ug/L	400	04/25/2012 18:42
Chlorobenzene	ND	U	46.4	400	ug/L	400	04/25/2012 18:42
Chloroethane	ND	U	124	400	ug/L	400	04/25/2012 18:42
Chloroform	ND	U	55.6	400	ug/L	400	04/25/2012 18:42
Chloromethane	ND	U	179	400	ug/L	400	04/25/2012 18:42
Dibromochloromethane	ND	U	53.6	400	ug/L	400	04/25/2012 18:42
Dibromomethane	ND	U	67.2	400	ug/L	400	04/25/2012 18:42

Print Date: 04/30/2012

N.C. Certification # 48 |

**Results of MW-25D**

Client Sample ID: MW-25D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139009-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 13:13  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Dual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dichlorodifluoromethane	ND	U	68.4	2000	ug/L	400	04/25/2012 18:42
cis-1,3-Dichloropropene	ND	U	30.7	400	ug/L	400	04/25/2012 18:42
trans-1,3-Dichloropropene	ND	U	34.5	400	ug/L	400	04/25/2012 18:42
Diisopropyl Ether	ND	U	118	400	ug/L	400	04/25/2012 18:42
Ethyl Benzene	ND	U	35.1	400	ug/L	400	04/25/2012 18:42
Hexachlorobutadiene	ND	U	31.7	400	ug/L	400	04/25/2012 18:42
Isopropylbenzene (Cumene)	ND	U	34.8	400	ug/L	400	04/25/2012 18:42
Methyl iodide	ND	U	46.0	400	ug/L	400	04/25/2012 18:42
Methylene chloride	ND	U	60.8	2000	ug/L	400	04/25/2012 18:42
Naphthalene	ND	U	34.2	400	ug/L	400	04/25/2012 18:42
Styrene	ND	U	40.8	400	ug/L	400	04/25/2012 18:42
Tetrachloroethene	ND	U	62.0	400	ug/L	400	04/25/2012 18:42
Toluene	ND	U	53.2	400	ug/L	400	04/25/2012 18:42
Trichloroethene	ND	U	50.0	400	ug/L	400	04/25/2012 18:42
Trichlorofluoromethane	ND	U	54.8	400	ug/L	400	04/25/2012 18:42
Vinyl chloride	ND	U	49.6	400	ug/L	400	04/25/2012 18:42
cis-1,2-Dichloroethene	7280		54.4	400	ug/L	400	04/25/2012 18:42
m,p-Xylene	ND	U	72.8	800	ug/L	400	04/25/2012 18:42
n-Propylbenzene	ND	U	45.2	400	ug/L	400	04/25/2012 18:42
o-Xylene	ND	U	35.0	400	ug/L	400	04/25/2012 18:42
sec-Butylbenzene	ND	U	44.8	400	ug/L	400	04/25/2012 18:42
tert-Butyl methyl ether (MTBE)	ND	U	57.6	400	ug/L	400	04/25/2012 18:42
tert-Butylbenzene	ND	U	34.2	400	ug/L	400	04/25/2012 18:42
trans-1,2-Dichloroethene	ND	U	89.2	400	ug/L	400	04/25/2012 18:42
trans-1,4-Dichloro-2-butene	ND	U	166	2000	ug/L	400	04/25/2012 18:42
<b>Surrogates</b>							
1,2-Dichloroethane-d4	99.0			64.0-140	%	400	04/25/2012 18:42
4-Bromofluorobenzene	101			85.0-115	%	400	04/25/2012 18:42
Toluene d8	99.0			82.0-117	%	400	04/25/2012 18:42

**Batch Information**

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 18:42

Prep Batch: VXX3212  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Vol./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

**Results of MW-108D**

 Client Sample ID: **MW-108D**

 Client Project ID: **AVX MB**

 Lab Sample ID: **31201139010-B**

 Lab Project ID: **31201139**

 Collection Date: **04/17/2012 14:17**

 Received Date: **04/18/2012 09:30**

 Matrix: **Water**
**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	1.04	10.0	ug/L	10	04/25/2012 17:30
1,1,1-Trichloroethane	ND	U	1.23	10.0	ug/L	10	04/25/2012 17:30
1,1,2,2-Tetrachloroethane	ND	U	1.56	10.0	ug/L	10	04/25/2012 17:30
1,1,2-Trichloroethane	ND	U	1.26	10.0	ug/L	10	04/25/2012 17:30
1,1-Dichloroethane	<b>1.70</b>	J	1.65	10.0	ug/L	10	04/25/2012 17:30
1,1-Dichloroethene	<b>2.20</b>	J	2.12	10.0	ug/L	10	04/25/2012 17:30
1,1-Dichloropropene	ND	U	0.863	10.0	ug/L	10	04/25/2012 17:30
1,2,3-Trichlorobenzene	ND	U	1.10	10.0	ug/L	10	04/25/2012 17:30
1,2,3-Trichloropropane	ND	U	2.12	10.0	ug/L	10	04/25/2012 17:30
1,2,4-Trichlorobenzene	ND	U	0.913	10.0	ug/L	10	04/25/2012 17:30
1,2,4-Trimethylbenzene	ND	U	0.961	10.0	ug/L	10	04/25/2012 17:30
1,2-Dibromo-3-chloropropane	ND	U	7.48	50.0	ug/L	10	04/25/2012 17:30
1,2-Dibromoethane	ND	U	1.20	10.0	ug/L	10	04/25/2012 17:30
1,2-Dichlorobenzene	ND	U	1.37	10.0	ug/L	10	04/25/2012 17:30
1,2-Dichloroethane	ND	U	1.67	10.0	ug/L	10	04/25/2012 17:30
1,2-Dichloropropane	ND	U	1.63	10.0	ug/L	10	04/25/2012 17:30
1,3,5-Trimethylbenzene	ND	U	1.13	10.0	ug/L	10	04/25/2012 17:30
1,3-Dichlorobenzene	ND	U	1.03	10.0	ug/L	10	04/25/2012 17:30
1,3-Dichloropropane	ND	U	1.30	10.0	ug/L	10	04/25/2012 17:30
1,4-Dichlorobenzene	ND	U	1.30	10.0	ug/L	10	04/25/2012 17:30
2,2-Dichloropropane	ND	U	3.93	10.0	ug/L	10	04/25/2012 17:30
2-Butanone	ND	U	7.23	250	ug/L	10	04/25/2012 17:30
2-Chlorotoluene	ND	U	1.13	10.0	ug/L	10	04/25/2012 17:30
2-Hexanone	ND	U	7.28	50.0	ug/L	10	04/25/2012 17:30
4-Chlorotoluene	ND	U	1.25	10.0	ug/L	10	04/25/2012 17:30
4-Isopropyltoluene	ND	U	0.769	10.0	ug/L	10	04/25/2012 17:30
4-Methyl-2-pentanone	ND	U	5.58	50.0	ug/L	10	04/25/2012 17:30
Acetone	ND	U	8.64	250	ug/L	10	04/25/2012 17:30
Benzene	ND	U	1.13	10.0	ug/L	10	04/25/2012 17:30
Bromobenzene	ND	U	1.10	10.0	ug/L	10	04/25/2012 17:30
Bromochloromethane	ND	U	2.11	10.0	ug/L	10	04/25/2012 17:30
Bromodichloromethane	ND	U	1.10	10.0	ug/L	10	04/25/2012 17:30
Bromoform	ND	U	0.974	10.0	ug/L	10	04/25/2012 17:30
Bromomethane	ND	U	2.37	10.0	ug/L	10	04/25/2012 17:30
n-Butylbenzene	ND	U	0.769	10.0	ug/L	10	04/25/2012 17:30
Carbon disulfide	ND	U	1.06	10.0	ug/L	10	04/25/2012 17:30
Carbon tetrachloride	ND	U	1.01	10.0	ug/L	10	04/25/2012 17:30
Chlorobenzene	ND	U	1.16	10.0	ug/L	10	04/25/2012 17:30
Chloroethane	ND	U	3.11	10.0	ug/L	10	04/25/2012 17:30
Chloroform	ND	U	1.39	10.0	ug/L	10	04/25/2012 17:30
Chloromethane	ND	U	4.48	10.0	ug/L	10	04/25/2012 17:30
Dibromochloromethane	ND	U	1.34	10.0	ug/L	10	04/25/2012 17:30
Dibromomethane	ND	U	1.68	10.0	ug/L	10	04/25/2012 17:30

Print Date: 04/30/2012

N.C. Certification # 48

## Results of MW-108D

Client Sample ID: MW-108D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139010-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 14:17  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	1.71	50.0	ug/L	10	04/25/2012 17:30
cis-1,3-Dichloropropene	ND	U	0.767	10.0	ug/L	10	04/25/2012 17:30
trans-1,3-Dichloropropene	ND	U	0.862	10.0	ug/L	10	04/25/2012 17:30
Diisopropyl Ether	ND	U	2.94	10.0	ug/L	10	04/25/2012 17:30
Ethyl Benzene	ND	U	0.877	10.0	ug/L	10	04/25/2012 17:30
Hexachlorobutadiene	ND	U	0.792	10.0	ug/L	10	04/25/2012 17:30
Isopropylbenzene (Cumene)	ND	U	0.869	10.0	ug/L	10	04/25/2012 17:30
Methyl iodide	ND	U	1.15	10.0	ug/L	10	04/25/2012 17:30
Methylene chloride	1.70	✓/G	1.52	50.0	ug/L	10	04/25/2012 17:30
Naphthalene	ND	U	0.855	10.0	ug/L	10	04/25/2012 17:30
Styrene	ND	U	1.02	10.0	ug/L	10	04/25/2012 17:30
Tetrachloroethene	ND	U	1.55	10.0	ug/L	10	04/25/2012 17:30
Toluene	ND	U	1.33	10.0	ug/L	10	04/25/2012 17:30
Trichloroethene	231		1.25	10.0	ug/L	10	04/25/2012 17:30
Trichlorofluoromethane	ND	U	1.37	10.0	ug/L	10	04/25/2012 17:30
Vinyl chloride	11.4		1.24	10.0	ug/L	10	04/25/2012 17:30
cis-1,2-Dichloroethene	345		1.36	10.0	ug/L	10	04/25/2012 17:30
m,p-Xylene	ND	U	1.82	20.0	ug/L	10	04/25/2012 17:30
n-Propylbenzene	ND	U	1.13	10.0	ug/L	10	04/25/2012 17:30
o-Xylene	ND	U	0.874	10.0	ug/L	10	04/25/2012 17:30
sec-Butylbenzene	ND	U	1.12	10.0	ug/L	10	04/25/2012 17:30
tert-Butyl methyl ether (MTBE)	ND	U	1.44	10.0	ug/L	10	04/25/2012 17:30
tert-Butylbenzene	ND	U	0.855	10.0	ug/L	10	04/25/2012 17:30
trans-1,2-Dichloroethene	ND	U	2.23	10.0	ug/L	10	04/25/2012 17:30
trans-1,4-Dichloro-2-butene	ND	U	4.14	50.0	ug/L	10	04/25/2012 17:30

## Surrogates

1,2-Dichloroethane-d4	99.0	64.0-140	%	10	04/25/2012 17:30
4-Bromoefluorobenzene	100	85.0-115	%	10	04/25/2012 17:30
Toluene d8	97.0	82.0-117	%	10	04/25/2012 17:30

## Batch Information

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/26/2012 17:30

Prep Batch: VXX3212  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol.: 40 mL

## Results of MW-23D

Client Sample ID: MW-23D

Client Project ID: AVX MB

Lab Sample ID: 31201139011-B

Lab Project ID: 31201139

Collection Date: 04/17/2012 14:39

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	5.20	50.0	ug/L	50	04/25/2012 17:54
1,1,1-Trichloroethane	ND	U	6.15	50.0	ug/L	50	04/25/2012 17:54
1,1,2,2-Tetrachloroethane	ND	U	7.80	50.0	ug/L	50	04/25/2012 17:54
1,1,2-Trichloroethane	ND	U	6.30	50.0	ug/L	50	04/25/2012 17:54
1,1-Dichloroethane	ND	U	8.25	50.0	ug/L	50	04/25/2012 17:54
1,1-Dichloroethene	ND	U	10.6	50.0	ug/L	50	04/25/2012 17:54
1,1-Dichloropropene	ND	U	4.32	50.0	ug/L	50	04/25/2012 17:54
1,2,3-Trichlorobenzene	ND	U	5.50	50.0	ug/L	50	04/25/2012 17:54
1,2,3-Trichloropropane	ND	U	10.6	50.0	ug/L	50	04/25/2012 17:54
1,2,4-Trichlorobenzene	ND	U	4.57	50.0	ug/L	50	04/25/2012 17:54
1,2,4-Trimethylbenzene	ND	U	4.81	50.0	ug/L	50	04/25/2012 17:54
1,2-Dibromo-3-chloropropane	ND	U	37.4	250	ug/L	50	04/25/2012 17:54
1,2-Dibromoethane	ND	U	6.00	50.0	ug/L	50	04/25/2012 17:54
1,2-Dichlorobenzene	ND	U	6.85	50.0	ug/L	50	04/25/2012 17:54
1,2-Dichloroethane	ND	U	8.35	50.0	ug/L	50	04/25/2012 17:54
1,2-Dichloropropane	ND	U	8.15	50.0	ug/L	50	04/25/2012 17:54
1,3,5-Trimethylbenzene	ND	U	5.65	50.0	ug/L	50	04/25/2012 17:54
1,3-Dichlorobenzene	ND	U	5.15	50.0	ug/L	50	04/25/2012 17:54
1,3-Dichloropropane	ND	U	6.50	50.0	ug/L	50	04/25/2012 17:54
1,4-Dichlorobenzene	ND	U	6.50	50.0	ug/L	50	04/25/2012 17:54
2,2-Dichloropropane	ND	U	19.7	50.0	ug/L	50	04/25/2012 17:54
2-Butanone	ND	U	36.2	1250	ug/L	50	04/25/2012 17:54
2-Chlorotoluene	ND	U	5.65	50.0	ug/L	50	04/25/2012 17:54
2-Hexanone	ND	U	36.4	250	ug/L	50	04/25/2012 17:54
4-Chlorotoluene	ND	U	6.25	50.0	ug/L	50	04/25/2012 17:54
4-Isopropyltoluene	ND	U	3.85	50.0	ug/L	50	04/25/2012 17:54
4-Methyl-2-pentanone	ND	U	27.9	250	ug/L	50	04/25/2012 17:54
Acetone	ND	U	43.2	1250	ug/L	50	04/25/2012 17:54
Benzene	ND	U	5.65	50.0	ug/L	50	04/25/2012 17:54
Bromobenzene	ND	U	5.50	50.0	ug/L	50	04/25/2012 17:54
Bromochloromethane	ND	U	10.6	50.0	ug/L	50	04/25/2012 17:54
Bromodichloromethane	ND	U	5.50	50.0	ug/L	50	04/25/2012 17:54
Bromoform	ND	U	4.87	50.0	ug/L	50	04/25/2012 17:54
Bromomethane	ND	U	11.9	50.0	ug/L	50	04/25/2012 17:54
n-Butylbenzene	ND	U	3.85	50.0	ug/L	50	04/25/2012 17:54
Carbon disulfide	ND	U	5.30	50.0	ug/L	50	04/25/2012 17:54
Carbon tetrachloride	ND	U	5.05	50.0	ug/L	50	04/25/2012 17:54
Chlorobenzene	ND	U	5.80	50.0	ug/L	50	04/25/2012 17:54
Chloroethane	ND	U	15.6	50.0	ug/L	50	04/25/2012 17:54
Chloroform	ND	U	6.95	50.0	ug/L	50	04/25/2012 17:54
Chloromethane	ND	U	22.4	50.0	ug/L	50	04/25/2012 17:54
Dibromochloromethane	ND	U	6.70	50.0	ug/L	50	04/25/2012 17:54
Dibromomethane	ND	U	8.40	50.0	ug/L	50	04/25/2012 17:54

Print Date: 04/30/2012

N.G. Certification # 48

## Results of MW-23D

Client Sample ID: MW-23D

Collection Date: 04/17/2012 14:39

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139011-B

Matrix: Water

Lab Project ID: 31201139

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	8.55	250	ug/L	50	04/25/2012 17:54
cis-1,3-Dichloropropene	ND	U	3.84	50.0	ug/L	50	04/25/2012 17:54
trans-1,3-Dichloropropene	ND	U	4.31	50.0	ug/L	50	04/25/2012 17:54
Diisopropyl Ether	ND	U	14.7	50.0	ug/L	50	04/25/2012 17:54
Ethyl Benzene	ND	U	4.39	50.0	ug/L	50	04/25/2012 17:54
Hexachlorobutadiene	ND	U	3.96	50.0	ug/L	50	04/25/2012 17:54
Isopropylbenzene (Cumene)	ND	U	4.35	50.0	ug/L	50	04/25/2012 17:54
Methyl Iodide	ND	U	5.75	50.0	ug/L	50	04/25/2012 17:54
Methylene chloride	ND	U	7.60	250	ug/L	50	04/25/2012 17:54
Naphthalene	ND	U	4.28	50.0	ug/L	50	04/25/2012 17:54
Styrene	ND	U	5.10	50.0	ug/L	50	04/25/2012 17:54
Tetrachloroethene	ND	U	7.75	50.0	ug/L	50	04/25/2012 17:54
Toluene	ND	U	6.65	50.0	ug/L	50	04/25/2012 17:54
Trichloroethene	255		6.25	50.0	ug/L	50	04/25/2012 17:54
Trichlorofluoromethane	ND	U	6.85	50.0	ug/L	50	04/25/2012 17:54
Vinyl chloride	10.0	J	6.20	50.0	ug/L	50	04/25/2012 17:54
cis-1,2-Dichloroethene	1520		6.80	50.0	ug/L	50	04/25/2012 17:54
m,p-Xylene	ND	U	9.10	100	ug/L	50	04/25/2012 17:54
n-Propylbenzene	ND	U	5.65	50.0	ug/L	50	04/25/2012 17:54
o-Xylene	ND	U	4.37	50.0	ug/L	50	04/25/2012 17:54
sec-Butylbenzene	ND	U	5.60	50.0	ug/L	50	04/25/2012 17:54
tert-Butyl methyl ether (MTBE)	ND	U	7.20	50.0	ug/L	50	04/25/2012 17:54
tert-Butylbenzene	ND	U	4.28	50.0	ug/L	50	04/25/2012 17:54
trans-1,2-Dichloroethene	34.0	J	11.2	50.0	ug/L	50	04/25/2012 17:54
trans-1,4-Dichloro-2-butene	ND	U	20.7	250	ug/L	50	04/25/2012 17:54
<b>Surrogates</b>							
1,2-Dichloroethane-d4	100			64.0-140	%	50	04/25/2012 17:54
4-Bromofluorobenzene	100			85.0-115	%	50	04/25/2012 17:54
Toluene d8	99.0			82.0-117	%	50	04/25/2012 17:54

## Batch Information

Analytical Batch: VMS2149

Prep Batch: VXX3212

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Instrument: MSD4

Prep Date/Time: 04/25/2012 08:00

Analyst: DVO

Prep Initial Vol./Vol.: 40 mL

Analytical Date/Time: 04/25/2012 17:54

Prep Extract Vol.: 40 mL

**Results of MW-23DD**

Client Sample ID: MW-23DD  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139012-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 14:48  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	20.8	200	ug/L	200	04/25/2012 18:18
1,1,1-Trichloroethane	ND	U	24.6	200	ug/L	200	04/25/2012 18:18
1,1,2,2-Tetrachloroethane	ND	U	31.2	200	ug/L	200	04/25/2012 18:18
1,1,2-Trichloroethane	ND	U	25.2	200	ug/L	200	04/25/2012 18:18
1,1-Dichloroethane	ND	U	33.0	200	ug/L	200	04/25/2012 18:18
1,1-Dichloroethene	ND	U	42.4	200	ug/L	200	04/25/2012 18:18
1,1-Dichloropropene	ND	U	17.3	200	ug/L	200	04/25/2012 18:18
1,2,3-Trichlorobenzene	ND	U	22.0	200	ug/L	200	04/25/2012 18:18
1,2,3-Trichloropropane	ND	U	42.4	200	ug/L	200	04/25/2012 18:18
1,2,4-Trichlorobenzene	ND	U	18.3	200	ug/L	200	04/25/2012 18:18
1,2,4-Trimethylbenzene	ND	U	19.2	200	ug/L	200	04/25/2012 18:18
1,2-Dibromo-3-chloropropane	ND	U	150	1000	ug/L	200	04/25/2012 18:18
1,2-Dibromoethane	ND	U	24.0	200	ug/L	200	04/25/2012 18:18
1,2-Dichlorobenzene	ND	U	27.4	200	ug/L	200	04/25/2012 18:18
1,2-Dichloroethane	ND	U	33.4	200	ug/L	200	04/25/2012 18:18
1,2-Dichloropropane	ND	U	32.6	200	ug/L	200	04/25/2012 18:18
1,3,5-Trimethylbenzene	ND	U	22.6	200	ug/L	200	04/25/2012 18:18
1,3-Dichlorobenzene	ND	U	20.6	200	ug/L	200	04/25/2012 18:18
1,3-Dichloropropane	ND	U	26.0	200	ug/L	200	04/25/2012 18:18
1,4-Dichlorobenzene	ND	U	26.0	200	ug/L	200	04/25/2012 18:18
2,2-Dichloropropane	ND	U	78.6	200	ug/L	200	04/25/2012 18:18
2-Butanone	ND	U	145	5000	ug/L	200	04/25/2012 18:18
2-Chlorotoluene	ND	U	22.6	200	ug/L	200	04/25/2012 18:18
2-Hexanone	ND	U	146	1000	ug/L	200	04/25/2012 18:18
4-Chlorotoluene	ND	U	25.0	200	ug/L	200	04/25/2012 18:18
4-Isopropyltoluene	ND	U	15.4	200	ug/L	200	04/25/2012 18:18
4-Methyl-2-pentanone	ND	U	112	1000	ug/L	200	04/25/2012 18:18
Acetone	ND	U	173	5000	ug/L	200	04/25/2012 18:18
Benzene	ND	U	22.6	200	ug/L	200	04/25/2012 18:18
Bromobenzene	ND	U	22.0	200	ug/L	200	04/25/2012 18:18
Bromochloromethane	ND	U	42.2	200	ug/L	200	04/25/2012 18:18
Bromodichloromethane	ND	U	22.0	200	ug/L	200	04/25/2012 18:18
Bromoform	ND	U	19.5	200	ug/L	200	04/25/2012 18:18
Bromomethane	ND	U	47.4	200	ug/L	200	04/25/2012 18:18
n-Butylbenzene	ND	U	15.4	200	ug/L	200	04/25/2012 18:18
Carbon disulfide	ND	U	21.2	200	ug/L	200	04/25/2012 18:18
Carbon tetrachloride	ND	U	20.2	200	ug/L	200	04/25/2012 18:18
Chlorobenzene	ND	U	23.2	200	ug/L	200	04/25/2012 18:18
Chloroethane	ND	U	62.2	200	ug/L	200	04/25/2012 18:18
Chloroform	ND	U	27.8	200	ug/L	200	04/25/2012 18:18
Chloromethane	ND	U	89.6	200	ug/L	200	04/25/2012 18:18
Dibromochloromethane	ND	U	26.8	200	ug/L	200	04/25/2012 18:18
Dibromomethane	ND	U	33.6	200	ug/L	200	04/25/2012 18:18

Print Date: 04/30/2012

N.C. Certification # 481

## Results of MW-23DD

Client Sample ID: MW-23DD  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139012-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 14:48  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	34.2	1000	ug/L	200	04/25/2012 18:18
cis-1,3-Dichloropropene	ND	U	15.3	200	ug/L	200	04/25/2012 18:18
trans-1,3-Dichloropropene	ND	U	17.2	200	ug/L	200	04/25/2012 18:18
Diisopropyl Ether	ND	U	58.8	200	ug/L	200	04/25/2012 18:18
Ethyl Benzene	ND	U	17.5	200	ug/L	200	04/25/2012 18:18
Hexachlorobutadiene	ND	U	15.8	200	ug/L	200	04/25/2012 18:18
Isopropylbenzene (Cumene)	ND	U	17.4	200	ug/L	200	04/25/2012 18:18
Methyl iodide	ND	U	23.0	200	ug/L	200	04/25/2012 18:18
Methylene chloride	40.0	J	30.4	1000	ug/L	200	04/25/2012 18:18
Naphthalene	ND	U	17.1	200	ug/L	200	04/25/2012 18:18
Styrene	ND	U	20.4	200	ug/L	200	04/25/2012 18:18
Tetrachloroethene	ND	U	31.0	200	ug/L	200	04/25/2012 18:18
Toluene	ND	U	26.6	200	ug/L	200	04/25/2012 18:18
Trichloroethene	384		25.0	200	ug/L	200	04/25/2012 18:18
Trichlorofluoromethane	ND	U	27.4	200	ug/L	200	04/25/2012 18:18
Vinyl chloride	768		24.8	200	ug/L	200	04/25/2012 18:18
cis-1,2-Dichloroethene	5300		27.2	200	ug/L	200	04/25/2012 18:18
m,p-Xylene	ND	U	36.4	400	ug/L	200	04/25/2012 18:18
n-Propylbenzene	ND	U	22.6	200	ug/L	200	04/25/2012 18:18
o-Xylene	ND	U	17.5	200	ug/L	200	04/25/2012 18:18
sec-Butylbenzene	ND	U	22.4	200	ug/L	200	04/25/2012 18:18
tert-Butyl methyl ether (MTBE)	ND	U	28.8	200	ug/L	200	04/25/2012 18:18
tert-Butylbenzene	ND	U	17.1	200	ug/L	200	04/25/2012 18:18
trans-1,2-Dichloroethene	ND	U	44.6	200	ug/L	200	04/25/2012 18:18
trans-1,4-Dichloro-2-butene	ND	U	82.8	1000	ug/L	200	04/25/2012 18:18
<b>Surrogates</b>							
1,2-Dichloroethane-d4	99.0			64.0-140	%	200	04/25/2012 18:18
4-Bromofluorobenzene	100			85.0-115	%	200	04/25/2012 18:18
Toluene d8	98.0			82.0-117	%	200	04/25/2012 18:18

## Batch Information

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 18:18

Prep Batch: VXX3212  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol.: 40 mL

## Results of MW-21S

Client Sample ID: MW-21S

Client Project ID: AVX MB

Lab Sample ID: 31201139013-B

Lab Project ID: 31201139

Collection Date: 04/17/2012 15:05

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/25/2012 15:28
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/25/2012 15:28
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/25/2012 15:28
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/25/2012 15:28
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/25/2012 15:28
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/25/2012 15:28
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/25/2012 15:28
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:28
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/25/2012 15:28
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/25/2012 15:28
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/25/2012 15:28
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/25/2012 15:28
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/25/2012 15:28
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/25/2012 15:28
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/25/2012 15:28
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/25/2012 15:28
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:28
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/25/2012 15:28
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/25/2012 15:28
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/25/2012 15:28
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/25/2012 15:28
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/25/2012 15:28
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:28
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/25/2012 15:28
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/25/2012 15:28
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 15:28
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/25/2012 15:28
Acetone	ND	U	0.864	25.0	ug/L	1	04/25/2012 15:28
Benzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:28
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:28
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/25/2012 15:28
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:28
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/25/2012 15:28
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/25/2012 15:28
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 15:28
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/25/2012 15:28
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/25/2012 15:28
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/25/2012 15:28
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/25/2012 15:28
Chloroform	ND	U	0.139	1.00	ug/L	1	04/25/2012 15:28
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/25/2012 15:28
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/25/2012 15:28
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/25/2012 15:28

Print Date: 04/30/2012

N.C. Certification #481

**Results of MW-21S**

Client Sample ID: MW-21S

Collection Date: 04/17/2012 15:05

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139013-B

Matrix: Water

Lab Project ID: 31201139

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/25/2012 15:28
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/25/2012 15:28
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/25/2012 15:28
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/25/2012 15:28
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/25/2012 15:28
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/25/2012 15:28
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/25/2012 15:28
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/25/2012 15:28
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/25/2012 15:28
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 15:28
Styrene	ND	U	0.102	1.00	ug/L	1	04/25/2012 15:28
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/25/2012 15:28
Toluene	ND	U	0.133	1.00	ug/L	1	04/25/2012 15:28
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/25/2012 15:28
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/25/2012 15:28
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	04/25/2012 15:28
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1	04/25/2012 15:28
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/25/2012 15:28
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:28
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/25/2012 15:28
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/25/2012 15:28
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/25/2012 15:28
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 15:28
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/25/2012 15:28
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/25/2012 15:28

**Surrogates**

1,2-Dichloroethane-d4	100	64.0-140	%	1	04/25/2012 15:28
4-Bromofluorobenzene	101	85.0-115	%	1	04/25/2012 15:28
Toluene d8	98.0	82.0-117	%	1	04/25/2012 15:28

**Batch Information**

Analytical Batch: VMS2149

Prep Batch: VXX3212

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Instrument: MSD4

Prep Date/Time: 04/25/2012 08:00

Analyst: DVO

Prep Initial Wt./Vol.: 40 mL

Analytical Date/Time: 04/25/2012 15:28

Prep Extract Vol.: 40 mL

## Results of MW-21D

Client Sample ID: MW-21D

Collection Date: 04/17/2012 15:13

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139014-B

Matrix: Water

Lab Project ID: 31201139

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.208	2.00	ug/L	2	04/25/2012 16:17
1,1,1-Trichloroethane	ND	U	0.246	2.00	ug/L	2	04/25/2012 16:17
1,1,2,2-Tetrachloroethane	ND	U	0.312	2.00	ug/L	2	04/25/2012 16:17
1,1,2-Trichloroethane	ND	U	0.252	2.00	ug/L	2	04/25/2012 16:17
1,1-Dichloroethane	2.02		0.330	2.00	ug/L	2	04/25/2012 16:17
1,1-Dichloroethene	ND	U	0.424	2.00	ug/L	2	04/25/2012 16:17
1,1-Dichloropropene	ND	U	0.173	2.00	ug/L	2	04/25/2012 16:17
1,2,3-Trichlorobenzene	ND	U	0.220	2.00	ug/L	2	04/25/2012 16:17
1,2,3-Trichloropropane	ND	U	0.424	2.00	ug/L	2	04/25/2012 16:17
1,2,4-Trichlorobenzene	ND	U	0.183	2.00	ug/L	2	04/25/2012 16:17
1,2,4-Trimethylbenzene	ND	U	0.192	2.00	ug/L	2	04/25/2012 16:17
1,2-Dibromo-3-chloropropane	ND	U	1.50	10.0	ug/L	2	04/25/2012 16:17
1,2-Dibromoethane	ND	U	0.240	2.00	ug/L	2	04/25/2012 16:17
1,2-Dichlorobenzene	ND	U	0.274	2.00	ug/L	2	04/25/2012 16:17
1,2-Dichloroethane	ND	U	0.334	2.00	ug/L	2	04/25/2012 16:17
1,2-Dichloropropane	ND	U	0.326	2.00	ug/L	2	04/25/2012 16:17
1,3,5-Trimethylbenzene	ND	U	0.226	2.00	ug/L	2	04/25/2012 16:17
1,3-Dichlorobenzene	ND	U	0.206	2.00	ug/L	2	04/25/2012 16:17
1,3-Dichloropropane	ND	U	0.260	2.00	ug/L	2	04/25/2012 16:17
1,4-Dichlorobenzene	ND	U	0.260	2.00	ug/L	2	04/25/2012 16:17
2,2-Dichloropropane	ND	U	0.786	2.00	ug/L	2	04/25/2012 16:17
2-Butanone	134		1.45	50.0	ug/L	2	04/25/2012 16:17
2-Chlorotoluene	ND	U	0.226	2.00	ug/L	2	04/25/2012 16:17
2-Hexanone	1.52	J	1.46	10.0	ug/L	2	04/25/2012 16:17
4-Chlorotoluene	ND	U	0.250	2.00	ug/L	2	04/25/2012 16:17
4-Isopropyltoluene	ND	U	0.154	2.00	ug/L	2	04/25/2012 16:17
4-Methyl-2-pentanone	ND	U	1.12	10.0	ug/L	2	04/25/2012 16:17
Acetone	15.1	J	1.73	50.0	ug/L	2	04/25/2012 16:17
Benzene	ND	U	0.226	2.00	ug/L	2	04/25/2012 16:17
Bromobenzene	ND	U	0.220	2.00	ug/L	2	04/25/2012 16:17
Bromochloromethane	ND	U	0.422	2.00	ug/L	2	04/25/2012 16:17
Bromodichloromethane	ND	U	0.220	2.00	ug/L	2	04/25/2012 16:17
Bromoform	ND	U	0.195	2.00	ug/L	2	04/25/2012 16:17
Bromomethane	ND	U	0.474	2.00	ug/L	2	04/25/2012 16:17
n-Butylbenzene	ND	U	0.154	2.00	ug/L	2	04/25/2012 16:17
Carbon disulfide	ND	U	0.212	2.00	ug/L	2	04/25/2012 16:17
Carbon tetrachloride	ND	U	0.202	2.00	ug/L	2	04/25/2012 16:17
Chlorobenzene	ND	U	0.232	2.00	ug/L	2	04/25/2012 16:17
Chloroethane	ND	U	0.622	2.00	ug/L	2	04/25/2012 16:17
Chloroform	ND	U	0.278	2.00	ug/L	2	04/25/2012 16:17
Chloromethane	ND	U	0.896	2.00	ug/L	2	04/25/2012 16:17
Dibromochloromethane	ND	U	0.268	2.00	ug/L	2	04/25/2012 16:17
Dibromomethane	ND	U	0.336	2.00	ug/L	2	04/25/2012 16:17

Print Date: 04/30/2012

N.C. Certification # 451

## Results of MW-21D

Client Sample ID: MW-21D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139014-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 15:13  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.342	10.0	ug/L	2	04/25/2012 16:17
cis-1,3-Dichloropropene	ND	U	0.153	2.00	ug/L	2	04/25/2012 16:17
trans-1,3-Dichloropropene	ND	U	0.172	2.00	ug/L	2	04/25/2012 16:17
Diisopropyl Ether	ND	U	0.588	2.00	ug/L	2	04/25/2012 16:17
Ethyl Benzene	ND	U	0.175	2.00	ug/L	2	04/25/2012 16:17
Hexachlorobutadiene	ND	U	0.158	2.00	ug/L	2	04/25/2012 16:17
Isopropylbenzene (Cumene)	ND	U	0.174	2.00	ug/L	2	04/25/2012 16:17
Methyl iodide	ND	U	0.230	2.00	ug/L	2	04/25/2012 16:17
Methylene chloride	0.900	J	0.304	10.0	ug/L	2	04/25/2012 16:17
Naphthalene	ND	U	0.171	2.00	ug/L	2	04/25/2012 16:17
Styrene	ND	U	0.204	2.00	ug/L	2	04/25/2012 16:17
Tetrachloroethene	ND	U	0.310	2.00	ug/L	2	04/25/2012 16:17
Toluene	ND	U	0.266	2.00	ug/L	2	04/25/2012 16:17
Trichloroethene	ND	U	0.250	2.00	ug/L	2	04/25/2012 16:17
Trichlorofluoromethane	ND	U	0.274	2.00	ug/L	2	04/25/2012 16:17
Vinyl chloride	47.5		0.248	2.00	ug/L	2	04/25/2012 16:17
cis-1,2-Dichloroethene	ND	U	0.272	2.00	ug/L	2	04/25/2012 16:17
m,p-Xylene	ND	U	0.364	4.00	ug/L	2	04/25/2012 16:17
n-Propylbenzene	ND	U	0.226	2.00	ug/L	2	04/25/2012 16:17
o-Xylene	ND	U	0.175	2.00	ug/L	2	04/25/2012 16:17
sec-Butylbenzene	ND	U	0.224	2.00	ug/L	2	04/25/2012 16:17
tert-Butyl methyl ether (MTBE)	ND	U	0.288	2.00	ug/L	2	04/25/2012 16:17
tert-Butylbenzene	ND	U	0.171	2.00	ug/L	2	04/25/2012 16:17
trans-1,2-Dichloroethene	1.26	J	0.446	2.00	ug/L	2	04/25/2012 16:17
trans-1,4-Dichloro-2-butene	ND	U	0.828	10.0	ug/L	2	04/25/2012 16:17

## Surrogates

1,2-Dichloroethane-d4	99.0		64.0-140	%	2	04/25/2012 16:17
4-Bromofluorobenzene	100		85.0-115	%	2	04/25/2012 16:17
Toluene d8	99.0		82.0-117	%	2	04/25/2012 16:17

## Batch Information

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 16:17

Prep Batch: VXX3212  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial WL/Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of PW-1S

Client Sample ID: PW-1S  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139015-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 15:45  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.416	4.00	ug/L	4	04/25/2012 17:05
1,1,1-Trichloroethane	ND	U	0.492	4.00	ug/L	4	04/25/2012 17:05
1,1,2,2-Tetrachloroethane	ND	U	0.624	4.00	ug/L	4	04/25/2012 17:05
1,1,2-Trichloroethane	ND	U	0.504	4.00	ug/L	4	04/25/2012 17:05
1,1-Dichloroethane	2.92	J	0.660	4.00	ug/L	4	04/25/2012 17:05
1,1-Dichloroethene	1.12	J	0.848	4.00	ug/L	4	04/25/2012 17:05
1,1-Dichloropropene	ND	U	0.345	4.00	ug/L	4	04/25/2012 17:05
1,2,3-Trichlorobenzene	ND	U	0.440	4.00	ug/L	4	04/25/2012 17:05
1,2,3-Trichloropropane	ND	U	0.848	4.00	ug/L	4	04/25/2012 17:05
1,2,4-Trichlorobenzene	ND	U	0.365	4.00	ug/L	4	04/25/2012 17:05
1,2,4-Trimethylbenzene	ND	U	0.384	4.00	ug/L	4	04/25/2012 17:05
1,2-Dibromo-3-chloropropane	ND	U	2.99	20.0	ug/L	4	04/25/2012 17:05
1,2-Dibromoethane	ND	U	0.480	4.00	ug/L	4	04/25/2012 17:05
1,2-Dichlorobenzene	ND	U	0.548	4.00	ug/L	4	04/25/2012 17:05
1,2-Dichloroethane	ND	U	0.668	4.00	ug/L	4	04/25/2012 17:05
1,2-Dichloropropane	ND	U	0.652	4.00	ug/L	4	04/25/2012 17:05
1,3,5-Trimethylbenzene	ND	U	0.452	4.00	ug/L	4	04/25/2012 17:05
1,3-Dichlorobenzene	ND	U	0.412	4.00	ug/L	4	04/25/2012 17:05
1,3-Dichloropropane	ND	U	0.520	4.00	ug/L	4	04/25/2012 17:05
1,4-Dichlorobenzene	ND	U	0.520	4.00	ug/L	4	04/25/2012 17:05
2,2-Dichloropropane	ND	U	1.57	4.00	ug/L	4	04/25/2012 17:05
2-Butanone	ND	U	2.89	100	ug/L	4	04/25/2012 17:05
2-Chlorotoluene	ND	U	0.452	4.00	ug/L	4	04/25/2012 17:05
2-Hexanone	ND	U	2.91	20.0	ug/L	4	04/25/2012 17:05
4-Chlorotoluene	ND	U	0.500	4.00	ug/L	4	04/25/2012 17:05
4-Isopropyltoluene	ND	U	0.308	4.00	ug/L	4	04/25/2012 17:05
4-Methyl-2-pentanone	ND	U	2.23	20.0	ug/L	4	04/25/2012 17:05
Acetone	ND	U	3.46	100	ug/L	4	04/25/2012 17:05
Benzene	ND	U	0.452	4.00	ug/L	4	04/25/2012 17:05
Bromobenzene	ND	U	0.440	4.00	ug/L	4	04/25/2012 17:05
Bromochloromethane	ND	U	0.844	4.00	ug/L	4	04/25/2012 17:05
Bromodichloromethane	ND	U	0.440	4.00	ug/L	4	04/25/2012 17:05
Bromoform	ND	U	0.390	4.00	ug/L	4	04/25/2012 17:05
Bromomethane	ND	U	0.948	4.00	ug/L	4	04/25/2012 17:05
n-Butylbenzene	ND	U	0.308	4.00	ug/L	4	04/25/2012 17:05
Carbon disulfide	ND	U	0.424	4.00	ug/L	4	04/25/2012 17:05
Carbon tetrachloride	ND	U	0.404	4.00	ug/L	4	04/25/2012 17:05
Chlorobenzene	ND	U	0.464	4.00	ug/L	4	04/25/2012 17:05
Chloroethane	ND	U	1.24	4.00	ug/L	4	04/25/2012 17:05
Chloroform	ND	U	0.556	4.00	ug/L	4	04/25/2012 17:05
Chloromethane	ND	U	1.79	4.00	ug/L	4	04/25/2012 17:05
Dibromochloromethane	ND	U	0.536	4.00	ug/L	4	04/25/2012 17:05
Dibromomethane	ND	U	0.672	4.00	ug/L	4	04/25/2012 17:05

Print Date: 04/30/2012

N.C. Certification # 4

## Results of PW-1S

Client Sample ID: PW-1S  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139015-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 15:45  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.684	20.0	ug/L	4	04/25/2012 17:05
cis-1,3-Dichloropropene	ND	U	0.307	4.00	ug/L	4	04/25/2012 17:05
trans-1,3-Dichloropropene	ND	U	0.345	4.00	ug/L	4	04/25/2012 17:05
Diisopropyl Ether	ND	U	1.18	4.00	ug/L	4	04/25/2012 17:05
Ethyl Benzene	ND	U	0.351	4.00	ug/L	4	04/25/2012 17:05
Hexachlorobutadiene	ND	U	0.317	4.00	ug/L	4	04/25/2012 17:05
Isopropylbenzene (Cumene)	ND	U	0.348	4.00	ug/L	4	04/25/2012 17:05
Methyl iodide	ND	U	0.460	4.00	ug/L	4	04/25/2012 17:05
Methylene chloride	0.840	J/B	0.608	20.0	ug/L	4	04/25/2012 17:05
Naphthalene	ND	U	0.342	4.00	ug/L	4	04/25/2012 17:05
Styrene	ND	U	0.408	4.00	ug/L	4	04/25/2012 17:05
Tetrachloroethene	ND	U	0.620	4.00	ug/L	4	04/25/2012 17:05
Toluene	ND	U	0.532	4.00	ug/L	4	04/25/2012 17:05
Trichloroethene	3.48	J	0.500	4.00	ug/L	4	04/25/2012 17:05
Trichlorofluoromethane	ND	U	0.548	4.00	ug/L	4	04/25/2012 17:05
Vinyl chloride	68.6		0.496	4.00	ug/L	4	04/25/2012 17:05
cis-1,2-Dichloroethene	71.0		0.544	4.00	ug/L	4	04/25/2012 17:05
m,p-Xylene	ND	U	0.728	8.00	ug/L	4	04/25/2012 17:05
n-Propylbenzene	ND	U	0.452	4.00	ug/L	4	04/25/2012 17:05
o-Xylene	ND	U	0.350	4.00	ug/L	4	04/25/2012 17:05
sec-Butylbenzene	ND	U	0.448	4.00	ug/L	4	04/25/2012 17:05
tert-Butyl methyl ether (MTBE)	ND	U	0.576	4.00	ug/L	4	04/25/2012 17:05
tert-Butylbenzene	ND	U	0.342	4.00	ug/L	4	04/25/2012 17:05
trans-1,2-Dichloroethene	ND	U	0.892	4.00	ug/L	4	04/25/2012 17:05
trans-1,4-Dichloro-2-butene	ND	U	1.66	20.0	ug/L	4	04/25/2012 17:05

## Surrogates

1,2-Dichloroethane-d4	100	64.0-140	%	4	04/25/2012 17:05
4-Bromofluorobenzene	99.0	85.0-115	%	4	04/25/2012 17:05
Toluene d8	97.0	82.0-117	%	4	04/25/2012 17:05

## Batch Information

Analytical Batch: VMS2149	Prep Batch: VXX3212
Analytical Method: SW-846 8260B	Prep Method: SW-846 5030B
Instrument: MSD4	Prep Date/Time: 04/25/2012 08:00
Analyst: DVO	Prep Initial Vol./Vol.: 40 mL
Analytical Date/Time: 04/25/2012 17:05	Prep Extract Vol: 40 mL

**Results of MW-14S**

Client Sample ID: MW-14S

Collection Date: 04/17/2012 15:55

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139016-B

Matrix: Water

Lab Project ID: 31201139

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	04/25/2012 15:52
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	04/25/2012 15:52
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	04/25/2012 15:52
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	04/25/2012 15:52
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	04/25/2012 15:52
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	04/25/2012 15:52
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	04/25/2012 15:52
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:52
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	04/25/2012 15:52
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	04/25/2012 15:52
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	04/25/2012 15:52
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	04/25/2012 15:52
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	04/25/2012 15:52
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	04/25/2012 15:52
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	04/25/2012 15:52
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	04/25/2012 15:52
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:52
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	04/25/2012 15:52
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	04/25/2012 15:52
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	04/25/2012 15:52
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	04/25/2012 15:52
2-Butanone	ND	U	0.723	25.0	ug/L	1	04/25/2012 15:52
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:52
2-Hexanone	ND	U	0.728	5.00	ug/L	1	04/25/2012 15:52
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	04/25/2012 15:52
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 15:52
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	04/25/2012 15:52
Acetone	ND	U	0.864	25.0	ug/L	1	04/25/2012 15:52
Benzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:52
Bromobenzene	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:52
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	04/25/2012 15:52
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	04/25/2012 15:52
Bromoform	ND	U	0.0974	1.00	ug/L	1	04/25/2012 15:52
Bromomethane	ND	U	0.237	1.00	ug/L	1	04/25/2012 15:52
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	04/25/2012 15:52
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	04/25/2012 15:52
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	04/25/2012 15:52
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	04/25/2012 15:52
Chloroethane	ND	U	0.311	1.00	ug/L	1	04/25/2012 15:52
Chloroform	ND	U	0.139	1.00	ug/L	1	04/25/2012 15:52
Chloromethane	ND	U	0.448	1.00	ug/L	1	04/25/2012 15:52
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	04/25/2012 15:52
Dibromomethane	ND	U	0.168	1.00	ug/L	1	04/25/2012 15:52

Print Date: 04/30/2012

N.C. Certification # 481

## Results of MW-14S

Client Sample ID: MW-14S

Collection Date: 04/17/2012 15:55

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139016-B

Matrix: Water

Lab Project ID: 31201139

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	04/25/2012 15:52
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	04/25/2012 15:52
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	04/25/2012 15:52
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	04/25/2012 15:52
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	04/25/2012 15:52
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	04/25/2012 15:52
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	04/25/2012 15:52
Methyl iodide	ND	U	0.115	1.00	ug/L	1	04/25/2012 15:52
Methylene chloride	ND	U	0.152	5.00	ug/L	1	04/25/2012 15:52
Naphthalene	ND	U	0.0855	1.00	ug/L	1	04/25/2012 15:52
Styrene	ND	U	0.102	1.00	ug/L	1	04/25/2012 15:52
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	04/25/2012 15:52
Toluene	ND	U	0.133	1.00	ug/L	1	04/25/2012 15:52
Trichloroethene	ND	U	0.125	1.00	ug/L	1	04/25/2012 15:52
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	04/25/2012 15:52
Vinyl chloride	3.22		0.124	1.00	ug/L	1	04/25/2012 15:52
cis-1,2-Dichloroethene	9.19		0.136	1.00	ug/L	1	04/25/2012 15:52
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	04/25/2012 15:52
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	04/25/2012 15:52
o-Xylene	ND	U	0.0874	1.00	ug/L	1	04/25/2012 15:52
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	04/25/2012 15:52
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	04/25/2012 15:52
tert-Butylbenzene	0.610	J	0.0855	1.00	ug/L	1	04/25/2012 15:52
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	04/25/2012 15:52
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	04/25/2012 15:52

## Surrogates

1,2-Dichloroethane-d4	100	64.0-140	%	1	04/25/2012 15:52
4-Bromofluorobenzene	102	85.0-115	%	1	04/25/2012 15:52
Toluene d8	99.0	82.0-117	%	1	04/25/2012 15:52

## Batch Information

Analytical Batch: VMS2149

Prep Batch: VXX3212

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Instrument: MSD4

Prep Date/Time: 04/25/2012 08:00

Analyst: DVO

Prep Initial Vol./Vol.: 40 mL

Analytical Date/Time: 04/25/2012 15:52

Prep Extract Vol: 40 mL

## Results of DPW-1D

Client Sample ID: DPW-1D

Collection Date: 04/17/2012 16:50

Client Project ID: AVX MB

Received Date: 04/18/2012 09:30

Lab Sample ID: 31201139017-B

Matrix: Water

Lab Project ID: 31201139

## Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	41.6	400	ug/L	400	04/25/2012 19:07
1,1,1-Trichloroethane	ND	U	49.2	400	ug/L	400	04/25/2012 19:07
1,1,2,2-Tetrachloroethane	ND	U	62.4	400	ug/L	400	04/25/2012 19:07
1,1,2-Trichloroethane	ND	U	50.4	400	ug/L	400	04/25/2012 19:07
1,1-Dichloroethane	ND	U	66.0	400	ug/L	400	04/25/2012 19:07
1,1-Dichloroethene	ND	U	84.8	400	ug/L	400	04/25/2012 19:07
1,1-Dichloropropene	ND	U	34.5	400	ug/L	400	04/25/2012 19:07
1,2,3-Trichlorobenzene	ND	U	44.0	400	ug/L	400	04/25/2012 19:07
1,2,3-Trichloropropane	ND	U	84.8	400	ug/L	400	04/25/2012 19:07
1,2,4-Trichlorobenzene	ND	U	36.5	400	ug/L	400	04/25/2012 19:07
1,2,4-Trimethylbenzene	ND	U	38.4	400	ug/L	400	04/25/2012 19:07
1,2-Dibromo-3-chloropropane	ND	U	299	2000	ug/L	400	04/25/2012 19:07
1,2-Dibromoethane	ND	U	48.0	400	ug/L	400	04/25/2012 19:07
1,2-Dichlorobenzene	ND	U	54.8	400	ug/L	400	04/25/2012 19:07
1,2-Dichloroethane	ND	U	66.8	400	ug/L	400	04/25/2012 19:07
1,2-Dichloropropane	ND	U	65.2	400	ug/L	400	04/25/2012 19:07
1,3,5-Trimethylbenzene	ND	U	45.2	400	ug/L	400	04/25/2012 19:07
1,3-Dichlorobenzene	ND	U	41.2	400	ug/L	400	04/25/2012 19:07
1,3-Dichloropropane	ND	U	52.0	400	ug/L	400	04/25/2012 19:07
1,4-Dichlorobenzene	ND	U	52.0	400	ug/L	400	04/25/2012 19:07
2,2-Dichloropropane	ND	U	157	400	ug/L	400	04/25/2012 19:07
2-Butanone	ND	U	289	10000	ug/L	400	04/25/2012 19:07
2-Chlorotoluene	ND	U	45.2	400	ug/L	400	04/25/2012 19:07
2-Hexanone	ND	U	291	2000	ug/L	400	04/25/2012 19:07
4-Chlorotoluene	ND	U	50.0	400	ug/L	400	04/25/2012 19:07
4-Isopropyltoluene	ND	U	30.8	400	ug/L	400	04/25/2012 19:07
4-Methyl-2-pentanone	ND	U	223	2000	ug/L	400	04/25/2012 19:07
Acetone	ND	U	346	10000	ug/L	400	04/25/2012 19:07
Benzene	ND	U	45.2	400	ug/L	400	04/25/2012 19:07
Bromobenzene	ND	U	44.0	400	ug/L	400	04/25/2012 19:07
Bromochloromethane	ND	U	84.4	400	ug/L	400	04/25/2012 19:07
Bromodichloromethane	ND	U	44.0	400	ug/L	400	04/25/2012 19:07
Bromoform	ND	U	39.0	400	ug/L	400	04/25/2012 19:07
Bromomethane	ND	U	94.8	400	ug/L	400	04/25/2012 19:07
n-Butylbenzene	ND	U	30.8	400	ug/L	400	04/25/2012 19:07
Carbon disulfide	ND	U	42.4	400	ug/L	400	04/25/2012 19:07
Carbon tetrachloride	ND	U	40.4	400	ug/L	400	04/25/2012 19:07
Chlorobenzene	ND	U	46.4	400	ug/L	400	04/25/2012 19:07
Chloroethane	ND	U	124	400	ug/L	400	04/25/2012 19:07
Chloroform	ND	U	55.6	400	ug/L	400	04/25/2012 19:07
Chloromethane	ND	U	179	400	ug/L	400	04/25/2012 19:07
Dibromochloromethane	ND	U	53.6	400	ug/L	400	04/25/2012 19:07
Dibromomethane	ND	U	67.2	400	ug/L	400	04/25/2012 19:07

Print Date: 04/30/2012

N.C. Certification # 481

## Results of DPW-1D

Client Sample ID: DPW-1D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139017-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 16:50  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	68.4	2000	ug/L	400	04/25/2012 19:07
cis-1,3-Dichloropropene	ND	U	30.7	400	ug/L	400	04/25/2012 19:07
trans-1,3-Dichloropropene	ND	U	34.5	400	ug/L	400	04/25/2012 19:07
Diisopropyl Ether	ND	U	118	400	ug/L	400	04/25/2012 19:07
Ethyl Benzene	ND	U	35.1	400	ug/L	400	04/25/2012 19:07
Hexachlorobutadiene	ND	U	31.7	400	ug/L	400	04/25/2012 19:07
Isopropylbenzene (Cumene)	ND	U	34.8	400	ug/L	400	04/25/2012 19:07
Methyl Iodide	ND	U	46.0	400	ug/L	400	04/25/2012 19:07
Methylene chloride	ND	U	60.8	2000	ug/L	400	04/25/2012 19:07
Naphthalene	ND	U	34.2	400	ug/L	400	04/25/2012 19:07
Styrene	ND	U	40.8	400	ug/L	400	04/25/2012 19:07
Tetrachloroethene	ND	U	62.0	400	ug/L	400	04/25/2012 19:07
Toluene	ND	U	53.2	400	ug/L	400	04/25/2012 19:07
Trichloroethene	2500		50.0	400	ug/L	400	04/25/2012 19:07
Trichlorofluoromethane	ND	U	54.8	400	ug/L	400	04/25/2012 19:07
Vinyl chloride	ND	U	49.6	400	ug/L	400	04/25/2012 19:07
cis-1,2-Dichloroethene	8560		54.4	400	ug/L	400	04/25/2012 19:07
m,p-Xylene	ND	U	72.8	800	ug/L	400	04/25/2012 19:07
n-Propylbenzene	ND	U	45.2	400	ug/L	400	04/25/2012 19:07
o-Xylene	ND	U	35.0	400	ug/L	400	04/25/2012 19:07
sec-Butylbenzene	ND	U	44.8	400	ug/L	400	04/25/2012 19:07
tert-Butyl methyl ether (MTBE)	ND	U	57.6	400	ug/L	400	04/25/2012 19:07
tert-Butylbenzene	ND	U	34.2	400	ug/L	400	04/25/2012 19:07
trans-1,2-Dichloroethene	ND	U	89.2	400	ug/L	400	04/25/2012 19:07
trans-1,4-Dichloro-2-butene	ND	U	166	2000	ug/L	400	04/25/2012 19:07
<b>Surrogates</b>							
1,2-Dichloroethane-d4	100			64.0-140	%	400	04/25/2012 19:07
4-Bromofluorobenzene	100			85.0-115	%	400	04/25/2012 19:07
Toluene d8	98.0			82.0-117	%	400	04/25/2012 19:07

## Batch Information

Analytical Batch: VMS1149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 19:07

Prep Batch: VXX3212  
 Prep Method: SW-846 S030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol: 40 mL  
 Prep Extract Vol: 40 mL

## Results of MW-9D

Client Sample ID: MW-9D

Client Project ID: AVX MB

Lab Sample ID: 31201139018-B

Lab Project ID: 31201139

Collection Date: 04/17/2012 17:02

Received Date: 04/18/2012 09:30

Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.416	4.00	ug/L	4	04/25/2012 16:41
1,1,1-Trichloroethane	ND	U	0.492	4.00	ug/L	4	04/25/2012 16:41
1,1,2,2-Tetrachloroethane	ND	U	0.624	4.00	ug/L	4	04/25/2012 16:41
1,1,2-Trichloroethane	ND	U	0.504	4.00	ug/L	4	04/25/2012 16:41
1,1-Dichloroethane	ND	U	0.660	4.00	ug/L	4	04/25/2012 16:41
1,1-Dichloroethene	ND	U	0.848	4.00	ug/L	4	04/25/2012 16:41
1,1-Dichloropropene	ND	U	0.345	4.00	ug/L	4	04/25/2012 16:41
1,2,3-Trichlorobenzene	ND	U	0.440	4.00	ug/L	4	04/25/2012 16:41
1,2,3-Trichloropropane	ND	U	0.848	4.00	ug/L	4	04/25/2012 16:41
1,2,4-Trichlorobenzene	ND	U	0.365	4.00	ug/L	4	04/25/2012 16:41
1,2,4-Trimethylbenzene	ND	U	0.384	4.00	ug/L	4	04/25/2012 16:41
1,2-Dibromo-3-chloropropane	ND	U	2.99	20.0	ug/L	4	04/25/2012 16:41
1,2-Dibromoethane	ND	U	0.480	4.00	ug/L	4	04/25/2012 16:41
1,2-Dichlorobenzene	ND	U	0.548	4.00	ug/L	4	04/25/2012 16:41
1,2-Dichloroethane	ND	U	0.668	4.00	ug/L	4	04/25/2012 16:41
1,2-Dichloropropane	ND	U	0.652	4.00	ug/L	4	04/25/2012 16:41
1,3,5-Trimethylbenzene	ND	U	0.452	4.00	ug/L	4	04/25/2012 16:41
1,3-Dichlorobenzene	ND	U	0.412	4.00	ug/L	4	04/25/2012 16:41
1,3-Dichloropropane	ND	U	0.520	4.00	ug/L	4	04/25/2012 16:41
1,4-Dichlorobenzene	ND	U	0.520	4.00	ug/L	4	04/25/2012 16:41
2,2-Dichloropropane	ND	U	1.57	4.00	ug/L	4	04/25/2012 16:41
2-Butanone	ND	U	2.89	100	ug/L	4	04/25/2012 16:41
2-Chlorotoluene	ND	U	0.452	4.00	ug/L	4	04/25/2012 16:41
2-Hexanone	ND	U	2.91	20.0	ug/L	4	04/25/2012 16:41
4-Chlorotoluene	ND	U	0.500	4.00	ug/L	4	04/25/2012 16:41
4-Isopropyltoluene	ND	U	0.308	4.00	ug/L	4	04/25/2012 16:41
4-Methyl-2-pentanone	ND	U	2.23	20.0	ug/L	4	04/25/2012 16:41
Acetone	ND	U	3.46	100	ug/L	4	04/25/2012 16:41
Benzene	ND	U	0.452	4.00	ug/L	4	04/25/2012 16:41
Bromobenzene	ND	U	0.440	4.00	ug/L	4	04/25/2012 16:41
Bromochloromethane	ND	U	0.844	4.00	ug/L	4	04/25/2012 16:41
Bromodichloromethane	ND	U	0.440	4.00	ug/L	4	04/25/2012 16:41
Bromoform	ND	U	0.390	4.00	ug/L	4	04/25/2012 16:41
Bromomethane	ND	U	0.948	4.00	ug/L	4	04/25/2012 16:41
n-Butylbenzene	ND	U	0.308	4.00	ug/L	4	04/25/2012 16:41
Carbon disulfide	ND	U	0.424	4.00	ug/L	4	04/25/2012 16:41
Carbon tetrachloride	ND	U	0.404	4.00	ug/L	4	04/25/2012 16:41
Chlorobenzene	ND	U	0.464	4.00	ug/L	4	04/25/2012 16:41
Chloroethane	ND	U	1.24	4.00	ug/L	4	04/25/2012 16:41
Chloroform	ND	U	0.556	4.00	ug/L	4	04/25/2012 16:41
Chloromethane	ND	U	1.79	4.00	ug/L	4	04/25/2012 16:41
Dibromochloromethane	ND	U	0.536	4.00	ug/L	4	04/25/2012 16:41
Dibromomethane	ND	U	0.672	4.00	ug/L	4	04/25/2012 16:41

Print Date: 04/30/2012

N.C. Certification # 4

## Results of MW-9D

Client Sample ID: MW-9D  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139018-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 17:02  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.684	20.0	ug/L	4	04/25/2012 16:41
cis-1,3-Dichloropropene	ND	U	0.307	4.00	ug/L	4	04/25/2012 16:41
trans-1,3-Dichloropropene	ND	U	0.345	4.00	ug/L	4	04/25/2012 16:41
Dilisopropyl Ether	ND	U	1.18	4.00	ug/L	4	04/25/2012 16:41
Ethyl Benzene	ND	U	0.351	4.00	ug/L	4	04/25/2012 16:41
Hexachlorobutadiene	ND	U	0.317	4.00	ug/L	4	04/25/2012 16:41
Isopropylbenzene (Cumene)	ND	U	0.348	4.00	ug/L	4	04/25/2012 16:41
Methyl iodide	ND	U	0.460	4.00	ug/L	4	04/25/2012 16:41
Methylene chloride	0.800	J/B	0.608	20.0	ug/L	4	04/25/2012 16:41
Naphthalene	ND	U	0.342	4.00	ug/L	4	04/25/2012 16:41
Styrene	ND	U	0.408	4.00	ug/L	4	04/25/2012 16:41
Tetrachloroethene	ND	U	0.620	4.00	ug/L	4	04/25/2012 16:41
Toluene	ND	U	0.532	4.00	ug/L	4	04/25/2012 16:41
Trichloroethene	0.840	J/B	0.500	4.00	ug/L	4	04/25/2012 16:41
Trichlorofluoromethane	ND	U	0.548	4.00	ug/L	4	04/25/2012 16:41
Vinyl chloride	ND	U	0.496	4.00	ug/L	4	04/25/2012 16:41
cis-1,2-Dichloroethene	92.2		0.544	4.00	ug/L	4	04/25/2012 16:41
m,p-Xylene	ND	U	0.728	8.00	ug/L	4	04/25/2012 16:41
n-Propylbenzene	ND	U	0.452	4.00	ug/L	4	04/25/2012 16:41
o-Xylene	ND	U	0.350	4.00	ug/L	4	04/25/2012 16:41
sec-Butylbenzene	ND	U	0.448	4.00	ug/L	4	04/25/2012 16:41
tert-Butyl methyl ether (MTBE)	ND	U	0.576	4.00	ug/L	4	04/25/2012 16:41
tert-Butylbenzene	ND	U	0.342	4.00	ug/L	4	04/25/2012 16:41
trans-1,2-Dichloroethene	ND	U	0.892	4.00	ug/L	4	04/25/2012 16:41
trans-1,4-Dichloro-2-butene	ND	U	1.66	20.0	ug/L	4	04/25/2012 16:41
<b>Surrogates</b>							
1,2-Dichloroethane-d4	99.0			64.0-140	%	4	04/25/2012 16:41
4-Bromofluorobenzene	101			85.0-115	%	4	04/25/2012 16:41
Toluene d8	98.0			82.0-117	%	4	04/25/2012 16:41

## Batch Information

Analytical Batch: VMS2149  
 Analytical Method: SW-846 8260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 16:41

Prep Batch: VXX3212  
 Prep Method: SW-II46 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of DPW-4SD

Client Sample ID: DPW-4SD  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139019-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 17:20  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	41.6	400	ug/L	400	04/25/2012 19:31
1,1,1-Trichloroethane	ND	U	49.2	400	ug/L	400	04/25/2012 19:31
1,1,2,2-Tetrachloroethane	ND	U	62.4	400	ug/L	400	04/25/2012 19:31
1,1,2-Trichloroethane	ND	U	50.4	400	ug/L	400	04/25/2012 19:31
1,1-Dichloroethane	68.0	J	66.0	400	ug/L	400	04/25/2012 19:31
1,1-Dichloroethene	ND	U	84.8	400	ug/L	400	04/25/2012 19:31
1,1-Dichloropropene	ND	U	34.5	400	ug/L	400	04/25/2012 19:31
1,2,3-Trichlorobenzene	ND	U	44.0	400	ug/L	400	04/25/2012 19:31
1,2,3-Trichloropropane	ND	U	84.8	400	ug/L	400	04/25/2012 19:31
1,2,4-Trichlorobenzene	ND	U	36.5	400	ug/L	400	04/25/2012 19:31
1,2,4-Trimethylbenzene	ND	U	38.4	400	ug/L	400	04/25/2012 19:31
1,2-Dibromo-3-chloropropane	ND	U	299	2000	ug/L	400	04/25/2012 19:31
1,2-Dibromoethane	ND	U	48.0	400	ug/L	400	04/25/2012 19:31
1,2-Dichlorobenzene	ND	U	54.8	400	ug/L	400	04/25/2012 19:31
1,2-Dichloroethane	ND	U	66.8	400	ug/L	400	04/25/2012 19:31
1,2-Dichloropropane	ND	U	65.2	400	ug/L	400	04/25/2012 19:31
1,3,5-Trimethylbenzene	ND	U	45.2	400	ug/L	400	04/25/2012 19:31
1,3-Dichlorobenzene	ND	U	41.2	400	ug/L	400	04/25/2012 19:31
1,3-Dichloropropane	ND	U	52.0	400	ug/L	400	04/25/2012 19:31
1,4-Dichlorobenzene	ND	U	52.0	400	ug/L	400	04/25/2012 19:31
2,2-Dichloropropane	ND	U	157	400	ug/L	400	04/25/2012 19:31
2-Butanone	ND	U	289	10000	ug/L	400	04/25/2012 19:31
2-Chlorotoluene	ND	U	45.2	400	ug/L	400	04/25/2012 19:31
2-Hexanone	ND	U	291	2000	ug/L	400	04/25/2012 19:31
4-Chlorotoluene	ND	U	50.0	400	ug/L	400	04/25/2012 19:31
4-Isopropyltoluene	ND	U	30.8	400	ug/L	400	04/25/2012 19:31
4-Methyl-2-pentanone	ND	U	223	2000	ug/L	400	04/25/2012 19:31
Acetone	ND	U	346	10000	ug/L	400	04/25/2012 19:31
Benzene	ND	U	45.2	400	ug/L	400	04/25/2012 19:31
Bromobenzene	ND	U	44.0	400	ug/L	400	04/25/2012 19:31
Bromochloromethane	ND	U	84.4	400	ug/L	400	04/25/2012 19:31
Bromodichloromethane	ND	U	44.0	400	ug/L	400	04/25/2012 19:31
Bromoform	ND	U	39.0	400	ug/L	400	04/25/2012 19:31
Bromomethane	ND	U	94.8	400	ug/L	400	04/25/2012 19:31
n-Butylbenzene	ND	U	30.8	400	ug/L	400	04/25/2012 19:31
Carbon disulfide	ND	U	42.4	400	ug/L	400	04/25/2012 19:31
Carbon tetrachloride	ND	U	40.4	400	ug/L	400	04/25/2012 19:31
Chlorobenzene	ND	U	46.4	400	ug/L	400	04/25/2012 19:31
Chloroethane	ND	U	124	400	ug/L	400	04/25/2012 19:31
Chloroform	ND	U	55.6	400	ug/L	400	04/25/2012 19:31
Chloromethane	ND	U	179	400	ug/L	400	04/25/2012 19:31
Dibromochloromethane	ND	U	53.6	400	ug/L	400	04/25/2012 19:31
Dibromomethane	ND	U	67.2	400	ug/L	400	04/25/2012 19:31

Print Date: 04/30/2012

N.C. Certification #401

**Results of DPW-4SD**

Client Sample ID: DPW-4SD  
 Client Project ID: AVX MB  
 Lab Sample ID: 31201139019-B  
 Lab Project ID: 31201139

Collection Date: 04/17/2012 17:20  
 Received Date: 04/18/2012 09:30  
 Matrix: Water

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	68.4	2000	ug/L	400	04/25/2012 19:31
cis-1,3-Dichloropropene	ND	U	30.7	400	ug/L	400	04/25/2012 19:31
trans-1,3-Dichloropropene	ND	U	34.5	400	ug/L	400	04/25/2012 19:31
Diisopropyl Ether	ND	U	118	400	ug/L	400	04/25/2012 19:31
Ethyl Benzene	ND	U	35.1	400	ug/L	400	04/25/2012 19:31
Hexachlorobutadiene	ND	U	31.7	400	ug/L	400	04/25/2012 19:31
Isopropylbenzene (Cumene)	ND	U	34.8	400	ug/L	400	04/25/2012 19:31
Methyl iodide	ND	U	46.0	400	ug/L	400	04/25/2012 19:31
Methylene chloride	ND	U	60.8	2000	ug/L	400	04/25/2012 19:31
Naphthalene	ND	U	34.2	400	ug/L	400	04/25/2012 19:31
Styrene	ND	U	40.8	400	ug/L	400	04/25/2012 19:31
Tetrachloroethene	ND	U	62.0	400	ug/L	400	04/25/2012 19:31
Toluene	ND	U	53.2	400	ug/L	400	04/25/2012 19:31
Trichloroethene	848		50.0	400	ug/L	400	04/25/2012 19:31
Trichlorofluoromethane	ND	U	54.8	400	ug/L	400	04/25/2012 19:31
Vinyl chloride	788		49.6	400	ug/L	400	04/25/2012 19:31
cis-1,2-Dichloroethene	7600		54.4	400	ug/L	400	04/25/2012 19:31
m,p-Xylene	ND	U	72.8	800	ug/L	400	04/25/2012 19:31
n-Propylbenzene	ND	U	45.2	400	ug/L	400	04/25/2012 19:31
o-Xylene	ND	U	35.0	400	ug/L	400	04/25/2012 19:31
sec-Butylbenzene	ND	U	44.8	400	ug/L	400	04/25/2012 19:31
tert-Butyl methyl ether (MTBE)	ND	U	57.6	400	ug/L	400	04/25/2012 19:31
tert-Butylbenzene	ND	U	34.2	400	ug/L	400	04/25/2012 19:31
trans-1,2-Dichloroethene	ND	U	89.2	400	ug/L	400	04/25/2012 19:31
trans-1,4-Dichloro-2-butene	ND	U	166	2000	ug/L	400	04/25/2012 19:31

**Surrogates**

1,2-Dichloroethane-d4	99.0	64.0-140	%	400	04/25/2012 19:31
4-Bromofluorobenzene	100	85.0-115	%	400	04/25/2012 19:31
Toluene d8	98.0	82.0-117	%	400	04/25/2012 19:31

**Batch Information**

Analytical Batch: VMS2149  
 Analytical Method: SW-846 B260B  
 Instrument: MSD4  
 Analyst: DVO  
 Analytical Date/Time: 04/25/2012 19:31

Prep Batch: VXX3212  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 04/25/2012 08:00  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL