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Transmittal Letter

To:
Mr. Ken H. Stroebel, P.G.
The Sherwin-Williams Company, Inc.
101 Prospect Avenue Northeast
Cleveland, OH 44115

Copies:
Kevin Lynch, US EPA
Michael Walters, US EPA
C. Psoras Esq., US EPA
Vivek Nattanmai, NYSDEC
Louis DiGuardia, US EPA
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APR 08 2009

From:
Lisa Collins

Date:
April 6, 2009

Subject:
January 2009 Semi-Annual Groundwater Sampling Report

ARCADIS Project No.:
AY000386.0001

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1	4/6/09			January 2009 Semi-Annual Groundwater Sampling Report, Newstead Superfund Site, Newstead, New York	

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Comments:

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Mr. Ken H. Stroebel, P.G.
The Sherwin-Williams Company, Inc
101 Prospect Avenue Northwest
Cleveland, OH 44115

Subject:
January 2009 Semi-Annual Groundwater Sampling Report,
Newstead Superfund Site, Newstead, New York

ENVIRONMENT

Dear Mr. Stroebel,

Date:
April 6, 2009

Contact:
Marc Sanford

Phone:
518.452.7826 x15

Email:
marc.sanford@arcadis-us.com

Our ref:
AY000386.0001

This letter report provides the results of the January 2009 semi-annual groundwater monitoring event at the Newstead Superfund Site, Newstead, New York (Figure 1). This is the first semi-annual event of 2009, and the third sampling event of the Post-Removal Groundwater Monitoring Plan.

Groundwater Sampling Methodology

Groundwater samples were collected on January 20/21, 2009 and February 17, 2009, using low flow sampling techniques (Minimal Drawdown Ground–Water Sampling Procedures; USEPA, 1996) as specified in the USEPA approved Post-Removal Groundwater Monitoring Plan dated February 2007. Monitoring well locations are shown on Figure 2. Monitoring wells MW1A-93, MW3A-08, and MW4A-93 were not sampled during the initial January 20/21, 2009 site visit because of frozen water within the well casings at these locations. These wells were subsequently sampled on February 17, 2009 with the exception of monitoring well MW1A-93 which remained frozen. The cement pad surrounding the base of monitoring well MW1A-93 has heaved and exposed the inner well casing. This well will be inspected prior to the next semi-annual sampling event and repaired.

Groundwater samples were collected from monitoring wells, MW1B-93, MW2A-93, MW2B-93, MW3B-93, and MW5A-07 and analyzed for:

- Volatile Organic Compounds (VOCs) by USEPA – SW846-8360/5030;
- Semi-Volatile Organic Compounds (SVOCs) by USEPA – SW846-8270/5035
- Metals by USEPA – SW846-6000/7000 series
- Total Cyanide by USEPA SW846-9012

All samples were analyzed by Test America in Amherst New York. The analytical reports are presented in Appendix A. Groundwater sampling logs are included as Appendix B.

Quality Assurance and Data Validation

The ground water data were validated in accordance with the Quality Assurance project Plan (QAPP) Worksheets #35 and #36. For the laboratory data deliverable, the ARCADIS QA Manager prepared a DUSR (Appendix C). The DUSR was prepared in accordance with the guidelines established by the NYSDEC Division of Environmental Remediation Quality Assurance Group. A preliminary review of the data was performed to verify that all of the necessary paperwork, such as chains-of-custody, traffic reports, analytical reports, and deliverable package were present. The laboratory provided all analytical data in an Analytical Services Protocol (ASP) Category B deliverable format as specified in the QAPP. A detailed quality assurance review as performed to verify the qualitative and quantitative reliability of the data.

The data validation report consists of a section that contains an assessment of the deliverables, followed by a section that describes, on an item-by-item basis, the analytical results containing deficiencies (if any) and any qualifications that should be considered when using the data. The qualifications were made by assessing the results based on the analytical method technical requirements (including QA/QC criteria) and the data validation requirements. The data validation report indicates the data qualification actions taken as a result of these criteria and includes a discussion of the possible bias in the sample results. Based on the data validation review, qualification of data, where appropriate, was made by the use of qualifier codes. These qualifiers serve as an indication of the qualitative and quantitative reliability of the data.

Results

Groundwater Flow Direction

Table 1 includes the water level data collected for the post-removal groundwater monitoring program. Water levels collected from the site monitoring wells on February 17, 2009 for both the shallow and deep monitoring wells were used to develop groundwater elevation contour maps. As shown on Figure 3a and Figure 3b, groundwater contours indicate a westerly direction of groundwater flow consistent

with the previous January 2008, and July 2008 groundwater flow patterns and flow direction.

Laboratory Analytical Results

VOCs analytical results for the January and February 2009 sampling events are presented in Table 2. VOCs were not detected in groundwater samples at concentrations above the laboratory detection limits, with the exception of toluene at 5.5 ug/L in well MW3A-08.

SVOC analytical results are presented in Table 3. SVOCs were not detected in groundwater samples with the exception of low, estimated concentrations (less than 1 ug/L) naphthalene and/or Di-n-butyl phthalate at monitoring wells MW1B-93, MW3A-08, and MW3B-93. Each of these detections was below the project action limits.

Total and dissolved metals analytical results are presented in Table 4. All detected metals were below the project action limits with the exception of total chromium detected in shallow monitoring well MW5A-07 (218 ug/L). The turbidity in this well was slightly higher than the previous sampling events, with black particulates observed in the water at the time of sampling. All dissolved (filtered) results were non-detect except for barium detected in each well at concentrations similar to the prior sampling events. All results for barium were below the project action limits.

Schedule

ARCADIS will schedule the next semi-annual round of ground water sampling for July 2009.

ARCADIS appreciates the opportunity to be of service to Sherwin-Williams on the Newstead site. If you have any questions regarding this report, please call the undersigned at (518) 452-7826.

Sincerely,

ARCADIS

Katie Arnold
Project Scientist

Marc W. Sanford
Project Manager

Copies:
Kevin Lynch, US EPA
Michael Walters, US EPA
C. Psoras Esq., US EPA
Vivek Nattanmai, NYSDEC
Louis DiGuardia, US EPA
File

Tables

Table 1. Water-level Data, Newstead Superfund Site, Newstead, New York

Well ID	Measuring Point Elevation	Groundwater Elevation			
		Jan-08	Jul-08	Jan-09	Feb-09
MW1A-93	597.81	593.31	593.2	**594.21**	**589.93**
MW-1B-93	597.06	589.81	591.13	592.37	584.56
MW2A-93	597.88	593.2	593.08	593.26	589
MW-2B-93	597.9	589.89	589.91	591.87	584.05
MW3A-08	597.49	593.61	593.3	**593.99**	590.12
MW-3B-93	596.06	589.44	590.1	591.92	585.06
MW-4A-93	597.24	593.47	593.28	**594.24**	589.94
MW-5A-07	595.88	592.15	592.52	593.66	589.65

BOLD = Depth to ice

Bold values indicate that well water was frozen.

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Table 2. Volatile Organic Compounds in Ground Water, Semi-Annual Groundwater Monitoring - January/February, 2009, Newstead Superfund Site, Newstead, New York

Volatile Organics	Project Action Limit	MW1A-93			MW1B-93			MW2A-93			MW2B-93			MW3A-08			MW3B-93			MW4A-93			MW5A-93		
		Jan-08	Jul-08	NA	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09	Jan-08	Sep-08	Feb-09	Jan-08	Jul-08	Jan-09
1,1-Dichloroethene	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0
2-Butanone	50 ug/L	< 5.0	< 5.0 J	NS	< 5.0	< 5.0 J	< 5.0	< 5.0	< 5.0 J	< 5.0	< 5.0	< 5.0 J	< 5.0	< 5.0	< 5.0 J	<5.0	< 5.0	< 5.0 J	< 5.0	<5.0	<5.0	<5.0	< 5.0 J	< 5.0	< 5.0
Acetone	50 ug/L	< 5.0	< 5.0	NS	< 5.0	< 5.0 J	< 5.0	3.6	<5.0 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.0 J	< 5.0	< 5.0	< 5.0	<5.0	<5.0	2.5 J	< 5.0	< 5.0	< 5.0
Benzene	1 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	1	<1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	50 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	60 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Chloroform	7 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0 J	<1.0	< 1.0	< 1.0	< 1.0
Toluene	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.5	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	2 ug/L	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0
Total Xylenes	5 ug/L	< 3.0	< 3.0	NS	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	<2.0	< 3.0	< 3.0	< 3.0	<3.0	<3.0	<2.0	< 3.0	< 3.0	< 3.0

Notes:

Results reported in ug/L

Project Action Limits per NYSDEC Ambient Ground Water Quality Standards and Guidance Values as listed in TOGS 1.1.1 (June 1998)

and in 6 NYCRR 703.5.

J = Indicates an estimated value.

NS = Did not sample. Monitoring Well MW1a-93 was frozen solid during both sampling events in January and Febuary.

Table 3. Semi-Volatile Compounds in Ground Water, Semi-Annual Groundwater Monitoring - January/February, 2009, Newstead Superfund Site, Newstead, New York

Semi-Volatile Organics	Project Action Limit	MW1A-93			MW1B-93			MW2A-93			MW2B-93			MW3A-08			MW3B-93			MW4A-93			MW5A-07		
		Jan-08	Jul-08	NA	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09
2,4-Dimethylphenol	50 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
2,4-Dinitrotoluene	5 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
2,6-Dinitrotoluene	5 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
4-Methylphenol	5 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
4-Nitroaniline	5 ug/L	< 48	< 48	NS	< 48	< 48	<50	<48	<47	<50	<48	<47	<50	<48	<47	< 50	<48	<47	<50	< 48	< 48	< 50	<48	<47	<50
Acenaphthylene	5 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
Benzoic acid	NA	< 140	< 140	NS	< 140	< 140	<150	< 140	< 140	<150	< 140	< 140	<140	< 140	< 140	< 150	< 140	< 140	<150	<140	360 J	< 150	< 140	< 140	<140
Bis (2-chloroethyl) ether	1 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
Bis (2-ethylhexy) phthalate	5 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
Diethyl phthalate	50 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	0.3 J	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10
Di-n-butyl phthalate	50 ug/L	< 10	< 10	NS	< 10	< 10	0.59 J	0.3	<9	<10	<10	<9	<10	0.4	<9	< 10	<10	<9	0.36 J	0.8	< 10	< 10	0.4	<9	<10
Naphthalene	10 ug/L	< 10	< 10	NS	< 10	< 10	0.35 J	<10	<9	<10	<10	< 0.2	0.21 J	<10	<9	< 10	0.3	<9	0.32 J	0.3	< 1.0	< 10	<10	<9	<10
Phenol	1 ug/L	< 10	< 10	NS	< 10	< 10	<10	<10	<9	<10	<10	<9	<10	<10	<9	< 10	<10	<9	<10	< 10	< 10	< 10	<10	<9	<10

Notes:

Results reported in ug/L

Project Action Limits per NYSDEC Ambient Ground Water Quality Standards and Guidance Values as listed in TOGS 1.1.1 (June 1998)

and in 6 NYCRR 703.5.

J = Indicates an estimated value.

DNS = Did not sample. Monitoring Well MW1a-93 was frozen solid during both sampling events in January 2009 and Febuary 2009.

NS = Not sampled

Table 4. Metals in Ground Water, Semi-Annual Groundwater Monitoring - January/February, 2009, Newstead Superfund Site, Newstead, New York

Total Metals	Project Action Limit	MW1A-93			MW1B-93			MW2A-93			MW2B-93			MW3A-08			MW3B-93			MW4A-93			MW5A-07		
		Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09
Barium	1000 ug/l	28.2	39.3	NS	71.5	66.2	60.5	151	138	124	35.6	25.2	31.2	23	66.0	103	26.7	35.8	33.2	28.1	29.9	21.9	173	147	138
Cadium	5 ug/l	< 1.0	< 1.0	NS	< 1.0	< 1.0	0.55	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 01 0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.00	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	15.3	NS	<4.0	<4.0	8.06	<4.0	14.5	1.67	<4.0	<4.0	1.85	<4.0	<4.0	2.36 J	< 4.0	< 4.0	1.78	< 4.0	< 4.0	1.40 J	6.2	7.5	218
Cobalt	NA	< 4.0	< 4.0	NS	<4.0	<4.0	1.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	< 04.0	< 4.0	< 4.0	<4.0	< 4.0	< 4.0	1.97 J	< 4.0	< 4.0	<4.0
Copper	200 ug/l	< 10.0	< 10.0	NS	<10.0	<10.0	4.42	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	3.05 J	< 10.0	< 10.0	<10.0	< 10.0	10.4	2.75 J	< 10.0	< 10.0	4.34
Lead	25 ug/l	< 5.0	< 5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	5.01	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	NS	<10.0	<10.0	7.91	<10.0	<10.0	5.71	<10.0	<10.0	3.85	<10.0	<10.0	8.37 J	< 10.0	< 10.0	3.73	< 10.0	36.4	10.6	< 10.0	< 10.0	6.18
Soluable Metals	**Project Action Limit**	**MW-1A-93**			**MW1B-93**			**MW2A-93**			**MW2B-93**			**MW3A-08**			**MW3B-93**			**MW4A-93**			**MW5A-07**		
		Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09	Jan-08	Jul-08	Feb-09	Jan-08	Jul-08	Jan-09
Barium	1000 ug/l	27.7	30.3	NS	67.8	64.8	56.4	121	127	119	33.8	27.5	25.9	21.1	52.4	92.8	23.9	21.8	27.6	26.1	32.3	19.8	163	140	129
Cadium	5 ug/l	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	< 4.0	NS	< 4.0	< 4.0	2.27	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	<4.0	< 4.0	< 4.0	1.12	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Cobalt	NA	< 4.0	< 4.0	NS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	<4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	1.17 J	< 4.0	< 4.0	< 4.0
Copper	200 ug/l	< 10.0	< 10.0	NS	< 10.0	< 10.0	1.67	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	1.4	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	< 10.0
Lead	25 ug/l	< 5.0	< 5.0	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	NS	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	4.6	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	4.26 J	< 10.0	< 10.0	< 10.0

Notes:

Results reported in ug/L

Project Action Limits per NYSDEC Ambient Ground Water Quality Standards and Guidance Values as listed in TOGS 1.1.1 (June 1998)

and in 6 NYCRR 703.5.

J = Indicates an estimated value.

NS = Did not sample. Monitoring Well MW1a-93 was frozen solid during both sampling events in January and Febuary.

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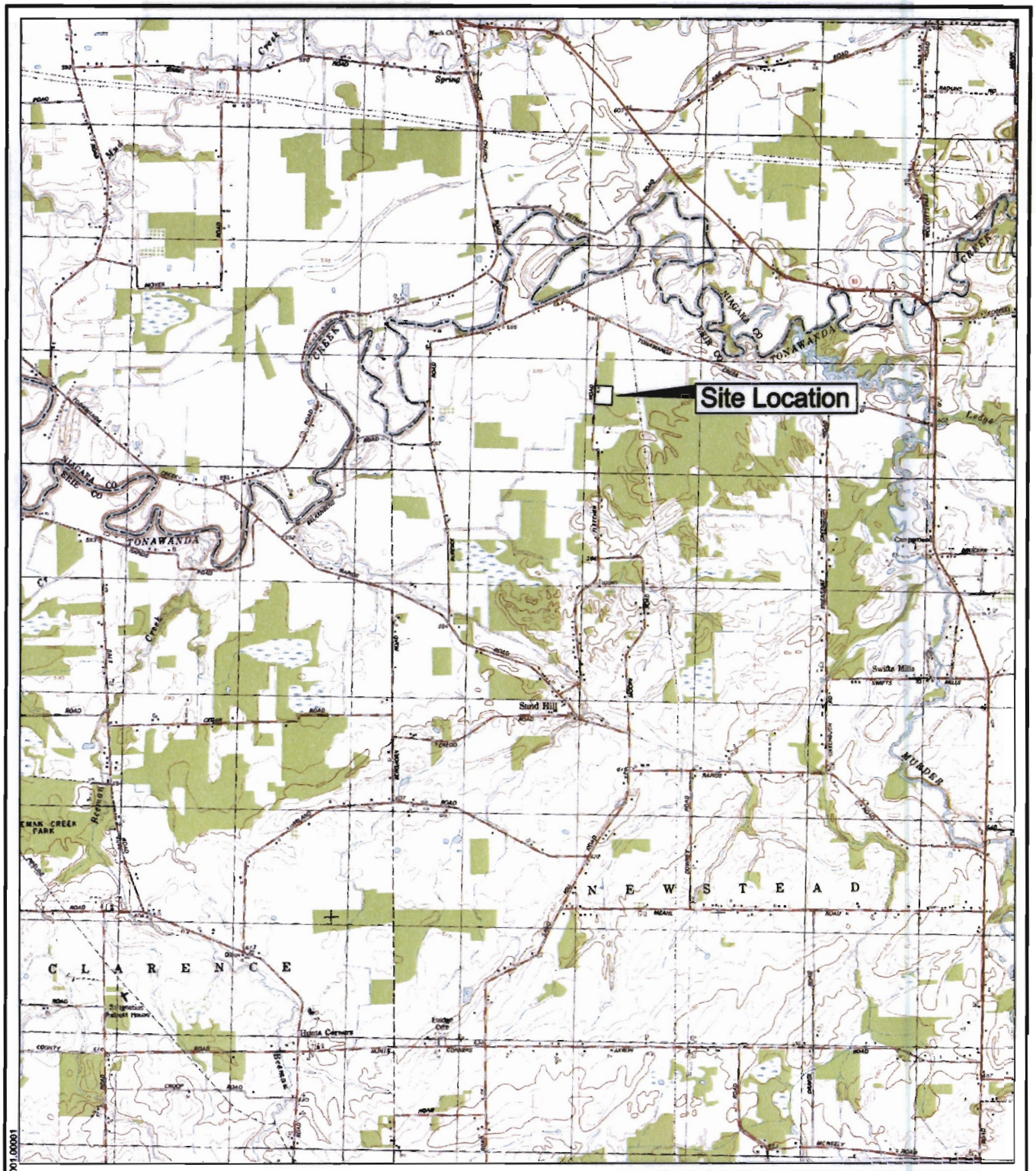
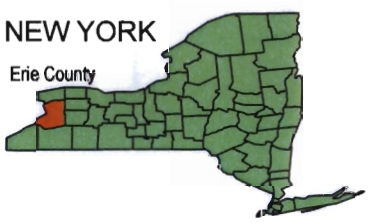
Figures



REFERENCE:
U.S.G.S. 7.5 Minute Series Topographic Quadrangle:
Wolcottsville, New York, 1980.



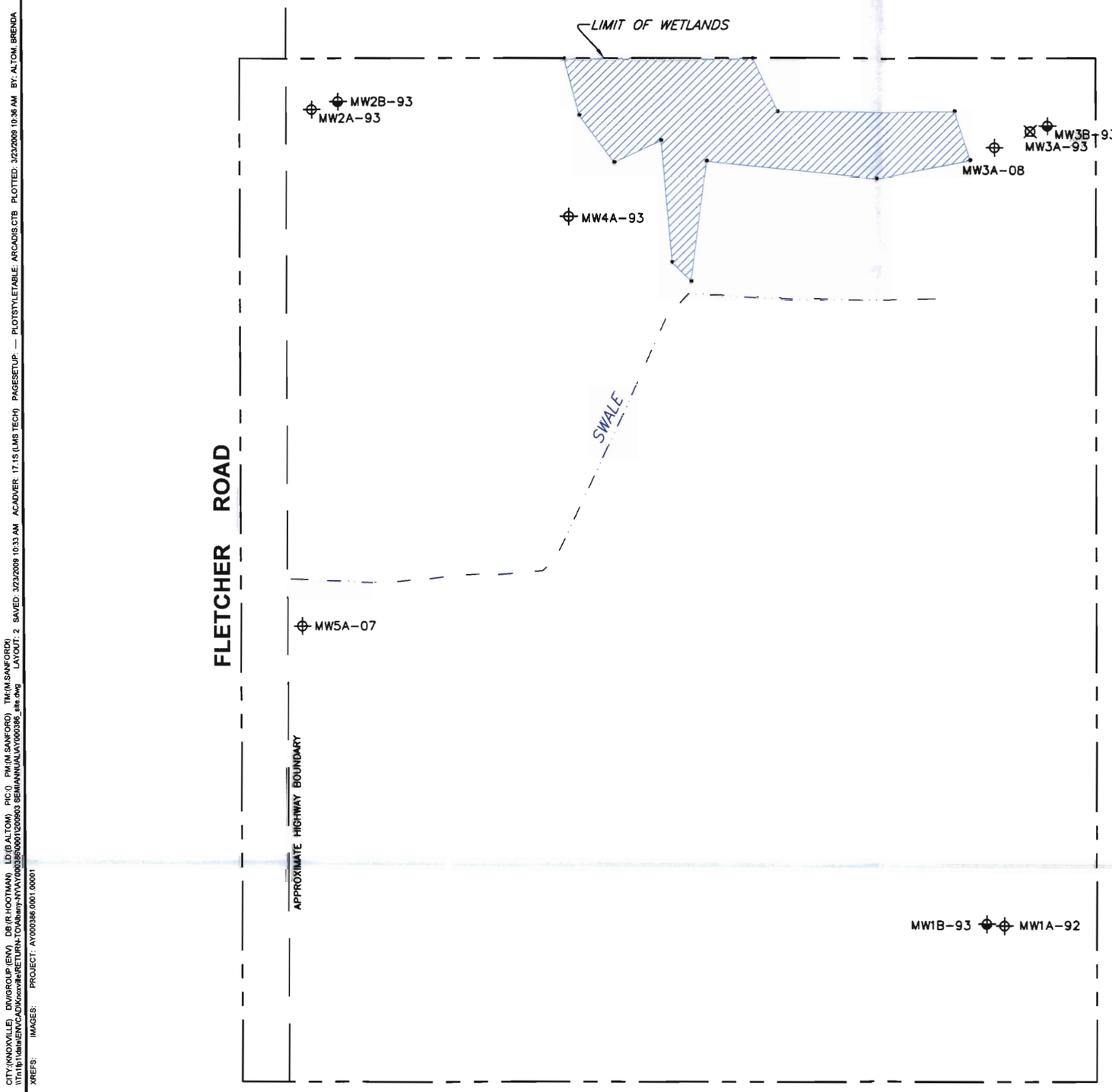
0 2000'
SCALE IN FEET

SHERWIN - WILLIAMS, NEWSTEAD, NEW YORK
January 2009 Semi-Annual Groundwater Sampling Report

Site Location

ARCADIS

FIGURE
1



LEGEND:

- APPROXIMATE BOUNDARY
- WETLANDS
- APPROXIMATE HWY. BOUNDARY
- SWALE
- TOPOGRAPHIC CONTOUR
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL

GENERAL NOTES:

1. *PREMISES BOUNDARY LINE SHOWN IS APPROXIMATE AND IS SUBJECT TO CHANGE BASED UPON COMPLETION OF A BOUNDARY SURVEY.*
2. *WETLAND AREA SHOWN IS SHOWN FROM A MAP PROVIDED BY OTHERS ENTITLED "FIGURE 2, WETLAND BOUNDARY MAP NEWSTEAD SITE, THE SHERWIN-WILLIAMS COMPANY".*
3. *FIGURE MODIFIED FROM ERM REMEDIATION AND CONSTRUCTION MANAGEMENT, FINAL CONDITIONS, FEBRUARY 2008".*

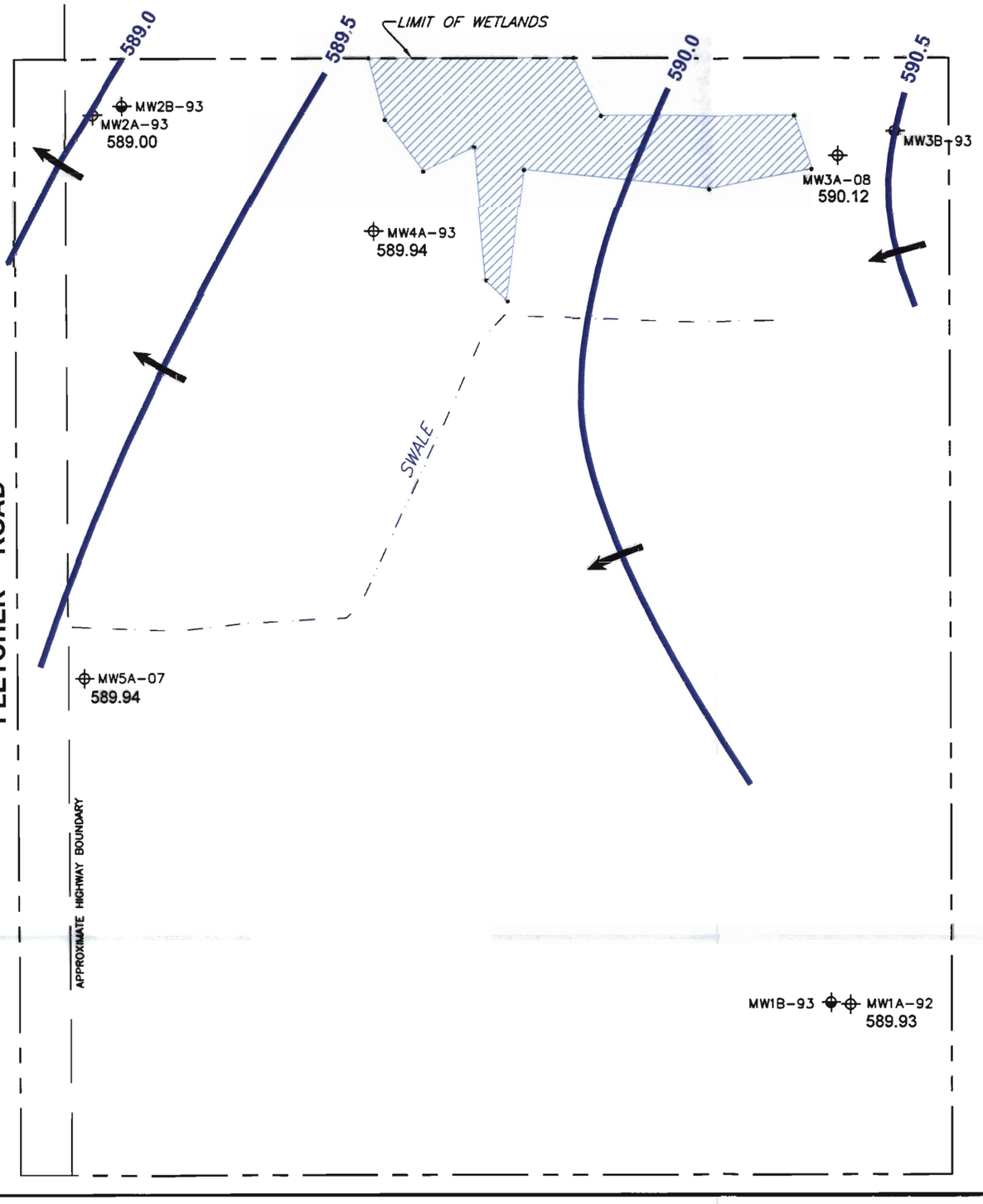
0 60'
GRAPHIC SCALE

SHERWIN - WILLIAMS, NEWSTEAD, NEW YORK
January 2009 Semi-Annual Groundwater Sampling Report

Monitoring Well Locations

ARCADIS

FIGURE 2



LEGEND:

APPROXIMATE BOUNDARY	
WETLANDS	
APPROXIMATE HWY. BOUNDARY	
SWALE	
GROUNDWATER CONTOUR (INFERRED WHERE DASHED)	590.5
WATER-LEVEL ELEVATION (FT. MSL.) MEASURED ON JULY 22, 2008	591.43
SHALLOW MONITORING WELL	
DEEP MONITORING WELL	
GENERAL DIRECTION OF GROUNDWATER FLOW	

GENERAL NOTES:

1. PREMISES BOUNDARY LINE SHOWN IS APPROXIMATE AND IS SUBJECT TO CHANGE BASED UPON COMPLETION OF A BOUNDARY SURVEY.
2. WETLAND AREA SHOWN IS SHOWN FROM A MAP PROVIDED BY OTHERS ENTITLED "FIGURE 2, WETLAND BOUNDARY MAP NEWSTEAD SITE, THE SHERWIN-WILLIAMS COMPANY".
3. FIGURE MODIFIED FROM ERM REMEDIATION AND CONSTRUCTION MANAGEMENT, FINAL CONDITIONS, FEBRUARY 2008".

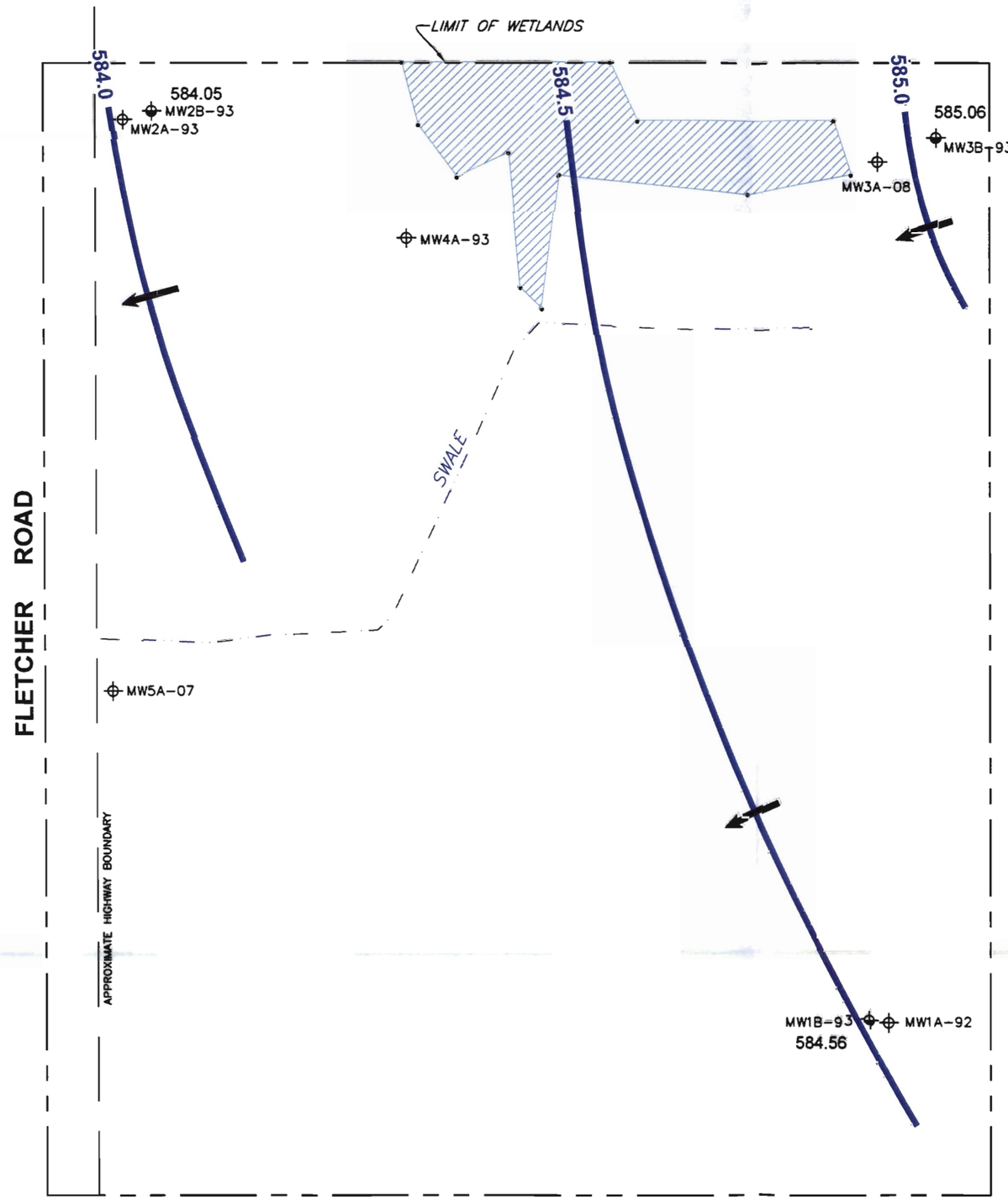
0 60'
GRAPHIC SCALE

SHERWIN - WILLIAMS, NEWSTEAD, NEW YORK
January 2009 Semi-Annual Groundwater Sampling Report

Shallow Groundwater Contours February 17, 2009

ARCADIS

FIGURE **3a**



LEGEND:

- APPROXIMATE BOUNDARY
- WETLANDS
- APPROXIMATE HWY. BOUNDARY
- SWALE
- GROUNDWATER CONTOUR — 585.0
- WATER-LEVEL ELEVATION (FT. MSL.) MEASURED ON JULY 22, 2008 — 584.56
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- GENERAL DIRECTION OF GROUNDWATER FLOW

GENERAL NOTES:

1. PREMISES BOUNDARY LINE SHOWN IS APPROXIMATE AND IS SUBJECT TO CHANGE BASED UPON COMPLETION OF A BOUNDARY SURVEY.
2. WETLAND AREA SHOWN IS SHOWN FROM A MAP PROVIDED BY OTHERS ENTITLED "FIGURE 2, WETLAND BOUNDARY MAP NEWSTEAD SITE, THE SHERWIN-WILLIAMS COMPANY".
3. FIGURE MODIFIED FROM ERM REMEDIATION AND CONSTRUCTION MANAGEMENT, FINAL CONDITIONS, FEBRUARY 2008".

0 60'
GRAPHIC SCALE

SHERWIN - WILLIAMS, NEWSTEAD, NEW YORK
January 2009 Semi-Annual Groundwater Sampling Report

Deep Groundwater Contours February 17, 2009

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FIGURE **3b**

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Appendix A

Analytical Reports

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Appendix B

Groundwater Sampling Logs

ARCADIS G&M

Low Flow Groundwater Sampling Form

Project/No. AY000386.0001 Well MW-1B93 Date 1/20/09

Total depth (ft bmp) 42.89 Screened Interval (ft bmp) Casing Diameter (inches) 2"

Measuring Point Description top of inner casing Static Water Level (ft bmp) 4.69

Pump Intake (ft bmp) 1 ft off bottom Sampling Time: Begin 1550 End 1610

Weather cold, 10's, light snow Pump type: Grundfos

Sampled by : GM/KA Water Quality Meter: YSI - rental Ashtead + LaMotte turb. 2020e

Time	Pumping Rate (ml/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP. (C) 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
1505	300	3.80	[illegible]	7.39	1.473	34.9	4.55	14.6	
1510		6.50	10.00	6.03	0.455	47.7	3.58	9.84	
1515		8.02	10.07	7.32	0.412	64.5	3.07	7.42	
1520		9.85	10.29	8.15	0.404	66.0	3.88	5.19	
1525		10.70	10.30	7.49	0.403	73.2	3.10	3.73	
1530		12.62	10.28	8.90	0.403	73.3	3.24	2.102	
1535		13.90	10.10	8.74	0.401	80.6	3.32	1.46	
1540		15.59	10.05	8.99	0.399	79.8	3.56	2.44	

Had to continually ↓ pumping 1/2 on Grundfos.

Color: Clear Pump start: 1505

Odor: None Pump stop: 1610

Appearance: Clear Gallons removed:

Dup/MS/MSD MS/MSD

Analyses: See COC

G:\TECHNICL\FIELD LOGS\Low Flow Samling Form.XLS- Sheet1

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of

Project/No. AY000386.0001 Well MW 3B?3 Date 1/20/09

Total depth (ft bmp) 51.46 Screened Interval (ft bmp) Casing Diameter (inches) 2"

Measuring Point Description Top of csg Static Water Level (ft bmp) 4.14

Pump Intake (ft bmp) 48.45' Sampling Time: Begin 1650 End 1700

Weather Cloudy 16 °F Pump type: Grundfos

Sampled by : GM/KA Water Quality Meter: YSI 556

Time	Pumping Rate L (~~ml~~/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP. (C) 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
1545		6.40						3.[illegible]	Turn on [illegible]
1552		5.29	10.07	7.05	0.408	36	5.64	7.87	
1557		6.32	9.92	7.37	0.407	27.3	3.07	6.23	
1602		7.00	9.95	6.52	0.409	10.7	2.56	5.64	
1607	1.5 L/min	7.75	9.95	6.06	0.403	4.6	1.56	5.63	
1612		8.32	10.13	7.58	0.401	-3.7	1.05	6.11	
1622		9.20	10.11	6.43	0.404	-5.8	1.07	5.95	
1627		11.70	9.91	10.76	0.396	-6.1	0.73	5.24	
1632		12.60	10.58	10.34	0.398	-18.0	1.03	5.89	
1638		13.10	10.46	9.12	0.397	-10.0	1.04	5.80	
1642		13.25	10.40	9.00	0.395	-9.9	1.05	5.92	
1647		13.39	10.35	8.70	0.398	-13.2	0.98	5.44	

Color: Clear Pump start: 1545 / 1550

Odor: None Pump stop: 1700

Appearance: Clear Gallons removed: 4.6

Dup/MS/MSD Dup-1

Analyses:

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page _____ of _____

Project/No. AY000386.0001 Well MW-5A 07 Date 01/21/08

Total depth (ft bmp) 17.21 Screened Interval (ft bmp) _____ Casing Diameter (inches) 2"

Measuring Point Description top of inner casing Static Water Level (ft bmp) 3.28

Pump Intake (ft bmp) 6' off bottom Sampling Time: Begin 1045 End 1050

Weather cold, snow 10°F Pump type: Grundfos

Sampled by : GM/KA Water Quality Meter: YSI 556 MPS - Latitude Lvl. 2020

Time	Pumping Rate (ml/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP. (C) 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
0955	300	3.02	7.28	7.29	1.287	-125.7	1.34	>	
1000		4.55	7.41	7.14	1.391	-102.1	1.08	182	
1005	200	4.61	7.48	7.34	1.396	-118.5	0.57	144	
1010		4.60	7.50	7.27	1.393	-120	0.53	40.1	
1015		4.58	7.40	7.00	1.396	-72.	0.44	21.0	
1020		4.60	7.45	7.35	1.381	-71.5	0.40	12.5	
1025		4.60	7.45	7.41	1.381	-62.4	0.41	8.91	
1030		4.60	7.44	7.41	1.379	-58.8	0.40	4.20	
1035		4.60	7.43	7.43	1.379	-58.1	0.39	7.92	

Color: none Pump start: 0955

Odor: none Pump stop: _____

Appearance: black particulates Gallons removed: _____

Dup/MS/MSD _____

Analyses: See COC

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of

Project/No. AY000386.0001 Well MW-2A 93 Date [illegible]

Total depth (ft bmp) 17.83 Screened Interval (ft bmp) Casing Diameter (inches) [illegible]

Measuring Point Description [illegible] Static Water Level (ft bmp) [illegible]

Pump Intake (ft bmp) [illegible] Sampling Time: Begin 1105 End 11.14

Weather [illegible] Pump type: Grundfos

Sampled by: GM/KA Water Quality Meter: YSI [illegible]

Time	Pumping Rate (ml/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP. (C) 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
0947								>1000	[illegible]
1000								167	
1010								[illegible]	
1012		7.10	6.59	44.32	1.452	-29.8	2.71	65.5	
1017	200 ml	7.08	6.54	45.45	1.471	-32.3	0.96	52.3	
1022	200	6.98	6.52	45.56	1.459	-32.5	0.61	53.4	
1027		7.03	6.51	45.63	1.437	-45.0	0.51	41.0	
1032		7.02	6.50	46.22	1.417	-50.3	0.47	28.10	
1037		7.02	6.51	46.37	1.412	-45.2	2.23	21.7	
1042		7.04	6.82	45.52	1.409	-47.4	0.62	19.1	
1047		7.03	6.51	46.03	1.404	-45.0	0.46	12.1	
1052		7.0[illegible]	6.50	45.93	1.405	-55.3	0.30	[illegible]	
1057		7.02	6.50	46.05	1.391	-57.0	0.27	7.55	
1102		7.02	6.75	45.99	1.393	-60.0	0.25	7.77	

Color: Clear

Odor: None

Appearance: Started orange silty [illegible] clear

Pump start: [illegible]

Pump stop: 11 15

Gallons removed: 7.0

Dup/MS/MSD —

[illegible]ses:

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. AY000386.0001 Well MW-28,93 Date 1/21/09

Total depth (ft bmp) 45 80 Screened Interval (ft bmp) _____ Casing Diameter (inches) 2"

Measuring Point Description Top of PVC Static Water Level (ft bmp) ~~14.04~~ 5.26

Pump Intake (ft bmp) 44.00 Sampling Time: Begin 1255 End 1304

Weather Mod Sunny 10°F Pump type: Grundfos

Sampled by : GM/KA Water Quality Meter: YSI 556

Time	Pumping Rate (ml/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP (C)F 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
1126		7.70						9.74	
1135		7.74	7.93	44.46	0.437	-132.9	.64	63.5	Cloudy
1140	200	7.75	8.10	40.20	0.421	-150.7	0.30	207	cloudy light brown tint
1145		7.77	8.10	40.44	0.434	-151.5	0.33	197	
1150		7.78	8.98	39.08	0.439	-153.4	0.30	151	
1155		7.79	8.16	39.30	0.440	-150.0	0.28	110	Cleared flow through cell + pulled pump + 1'
1205		8.01	8.17	44.63	0.431	-30.8	0.51	44	
1210		8.42	8.16	43.33	0.435	-64	0.41	35.5	
1215		8.55	8.17	42.47	0.434	-54.2	0.31	27.8	
1220		8.57	8.19	43.35	0.434	-36.1	0.21	22.8	
1225		8.56	8.22	42.96	0.435	-31.1	0.20	15.3	
1230		8.52	8.20	43.01	0.432	-20.1	0.26	12.1	
1235		8.55	8.25	43.10	0.435	-48.8	0.31	10.49	
1240		8.52	8.25	42.38	0.434	-65.7	0.21	6.38	
1245		8.49	8.19	42.47	0.435	-68.4	0.24	6.87	
1250		8.52	8.21	42.41	0.432	-64.7	0.22	6.70	

Color: Clear

Odor: none

Appearance: cloudy

Pump start: 1125

Pump stop: 1305

Gallons removed: 4.5

Dup/MS/MSD —

Analyses: _____

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of

Project/No. A4000384.0001 Well MW-3A 93 Date 2/17/07

Total depth (ft bmp) 18 Screened Interval (ft bmp) 18 - 8.0 Casing Diameter (inches) 2"

Measuring Point Description inner steel casing Static Water Level (ft bmp) 3.49

Pump Intake (ft bmp) 12' Sampling Time: Begin 1557 End 1615

Weather Partly Cloudy 30° Pump type: geopump

Sampled by : KA Water Quality Meter: Horiba U-22 / LaMotte 2020

Time	Pumping Rate (ml/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP (C) 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
1327								375	
1405	100	3.80	7.35	5.6	0.654	-49	10.4	747	
1410	100	3.82	7.39	5.7	0.549	-51	9.92	312	
1415	100	4.10	7.38	5.8	0.691	-58	8.14	307	
1420	200	4.02	7.44	5.5	[illegible]	-35	[illegible]	298	
1425	200	4.02	7.50	5.5	[illegible]	-33	8.17	273	
1430	200	[illegible]	7.50	5.4	[illegible]	-31	8.04	234	
1435		4.02	7.51	5.5	[illegible]	-23	7.91	141	
1440		4.02	7.51	5.4	[illegible]	-23	7.95	133	
1445		4.02	7.51	5.4	[illegible]	-28	7.86	82.8	
1450		4.02	7.51	5.4	0.681	-30	7.83	64.1	
1455		4.10	7.48	5.4	0.691	-24	7.54	60.2	
1500		4.09	7.45	5.3	0.692	-28	7.46	58.3	
1505		4.09	7.40	5.3	0.687	-29	7.54	50.3	
1510		4.08	7.34	5.5	0.685	-32	7.46	44.5	
1520		4.09	7.30	5.5	0.694	39	7.50	42.5	
1530		4.09	7.31	5.4	0.695	-39	7.48	35.7	
1540		4.10	7.41	5.4	0.690	-41	7.54	23.80	
1545		4.10	7.42	5.5	0.687	-42	7.47	22.40	
1550		4.11	7.41	5.5	0.689	-48	7.41	22.3	

Color: Clear Pump start: 1325

Odor: none Pump stop: 1615

Appearance: Slightly Cloudy Gallons removed: —

Dup/MS/MSD

Analyses:

Due to break through IC, purge & sample

G:\TECHNICL\FIELD LOGS\Low Flow Samling Form XLS- Sheet1

7A 13

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of

Project/No. AY000386. Well MW-4A-93 Date 02/17/09

Total depth (ft bmp) 15.90 Screened Interval (ft bmp) Casing Diameter (inches) 2"

Measuring Point Description PVC/notch/bearing Static Water Level (ft bmp) 4.08

Pump Intake (ft bmp) 4 feet off bottom Sampling Time: Begin 1450 End 1505

Weather cold, 30, cloudy Pump type: geopump

Sampled by : CAM Water Quality Meter: Horiba U22 LaMotte

Time	Pumping Rate (ml/min)	DTW (ft bmp)	pH (s.u.) +/- 0.1	TEMP. (C) 3%	Cond. (umhos or ms/cm) 3%	ORP (mV) +/-10	DO (mg/L) 10%	TURB (NTU) 10%	Notes
1310		4.08							Flow through
1320	50	4.5	7.16	5.1	2.11	50	8.42	85.8	Cell has air bubbles in it.
1325	100	4.55	7.62	4.3	2.21	29	8.50	42.7	
1330	~~100~~	4.55	7.68	4.6	2.17	25	8.44	25.9	
1335	75	4.55	7.71	4.3	2.09	20	8.64	17.0	
1340	75	4.55	7.71	4.0	2.16	13	8.69	15.0	
1345	75	4.55	7.73	4.0	2.14	12	8.65	11.8	
1350	75	4.55	7.77	4.1	2.18	6	8.67	8.07	
1355	75	4.55	7.77	4.1	2.15	3	8.73	8.80	
1400	75	4.55	7.77	4.1	2.17	-1	8.76	7.79	

Color: tan tint - slight Pump start: 0317

Odor: none Pump stop: 1505

Appearance: clear Gallons removed:

Dup/MS/MSD —

Analyses: See COC

G:\TECHNICL\FIELD LOGS\Low Flow Samling Form XLS- Sheet1

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Appendix C

DUSR

ARCADIS
Infrastructure, environment, facilities

Imagine the result

The Sherwin-Williams Company, Inc.

Data Usability Summary Report

NEWSTEAD, NEW YORK

Volatiles, Semivolatiles, Metals, and Misc.

SDG: RSA0637

Analyses Performed By:
TestAmerica Laboratories
Buffalo, New York

Report: #9899R
Project: AY000386.0001.0001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #RSA0637 for samples collected in association with the Newstead Superfund Site, Newstead, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PEST/ PCB	MET	MISC
MW-1B-93	RSA0637-01	Water	01/20/2009		X	X		X	X
MW-3B-93	RSA0637-02	Water	01/20/2009		X	X		X	X
DUP-1	RSA0637-03	Water	01/20/2009	MW-3B-93	X	X		X	X
MW-5A-07	RSA0637-04	Water	01/21/2009		X	X		X	X
MW-2A-93	RSA0637-05	Water	01/21/2009		X	X		X	X
MW-2B-93	RSA0637-06	Water	01/21/2009		X	X		X	X
FB012109	RSA0637-07	Water	01/21/2009		X	X		X	X
Trip Blank	RSA0637-08	Water	01/21/2009		X	X		X	X

ANALYTICAL DATA PACKAGE DOCUMENTATION

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

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

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B (VOCs), and Method 8270C (SVOCs). Data was reviewed in accordance with USEPA National Functional Guidelines of October 1999 and January 2005 and USEPA Region II SOPs associated with USEPA SW-846 Volatile Organic Compounds by SW-846 Method 8260B(SOP HW-24 Revision 2, October 2006) and Validating Semi-volatile Organic Compounds by SW-846 Method 8270 (SOP HW-22 Revision 3, October 2006

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

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

- Concentration (C) Qualifiers

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

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

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

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

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

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

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

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

  R The sample results are rejected.

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

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

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

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

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

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

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

3. Mass Spectrometer Tuning

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

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

5. Surrogates/System Monitoring Compounds

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

All surrogate recoveries were within control limits.

6. Internal Standard Performance

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

All internal standard responses were within control limits.

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

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

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

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

8. Laboratory Control Sample (LCS) Analysis

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

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

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy
of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

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

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR VOCs

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

%RSD Percent relative difference
%R Percent recovery

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

RPD Relative percent difference
%D Percent difference

SEMIVOLATILE VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

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

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

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

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

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

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

3. Mass Spectrometer Tuning

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

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

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

5. Surrogates/System Monitoring Compounds

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

All surrogate recoveries were within control limits.

6. Internal Standard Performance

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

All internal standard responses were within control limits.

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

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

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

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

8. Laboratory Control Sample (LCS) Analysis

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

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

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-3B-93/DUP-1	Di-n-butylphalate	0.36 J	0.33 J	AC
	Naphthalene	0.32 J	ND(10)	AC

AC Acceptable
NC Not compliant
ND Not detected

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

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR SVOCs

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

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

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010B (metals total and dissolved) and 9012A (cyanide). Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

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

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

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

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

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

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

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

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

  R The sample results are rejected.

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

METALS ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.

All samples were analyzed within the specified holding times.

2. Blank Contamination

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

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

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

3. Calibration

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

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All CRDL standard recoveries were within control limits.

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

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

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-3B-93/DUP-1	Barium, Dissolved	0.0276	0.0246	11.5%
	Chromium, Dissolved	0.0011 J	ND(0.0040)	AC
	Copper, Dissolved	0.0014 J	0.0017 J	AC
	Barium, Total	0.0332	0.0333	0.03%
	Chromium, Total	0.0018 J	0.0021 J	AC
	Zinc, Total	0.0037 J	0.0049 J	AC

ND = Not detected
AC = Acceptable
NC = Non-compliant

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

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the

control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

The serial dilution performed on sample location MW-1B-93 exhibited %D within the control limit.

8. Furnace Analysis QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR METALS

METALS: SW-846 6010B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X	X		
B. Method Blanks		X		X	
C. Equipment/Field Blanks		X	X		
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
ICP Serial Dilution		X		X	
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X		X	
ICP Interference Check		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
Cyanide by SW-846 9012A	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

2. Blank Contamination

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

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

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

3. Calibration

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

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

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

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

The MS analysis performed on sample location MW-1B-93 exhibited recoveries within the control limits

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

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

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA SW-846 9012A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %Ds		X		X	
Raw Data		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

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

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST	MET	MISC	
RSA0637-01	01/20/2009	SW-846	MW-1B-93	Water	Yes	Yes		Yes	Yes	
RSA0637-02	01/20/2009	SW-846	MW-3B-93	Water	Yes	Yes		Yes	Yes	
RSA0637-03	01/20/2009	SW-846	DUP-1	Water	Yes	Yes		Yes	Yes	
RSA0637-04	01/21/2009	SW-846	MW-5A-07	Water	Yes	Yes		Yes	Yes	
RSA0637-05	01/21/2009	SW-846	MW-2A-93	Water	Yes	Yes		Yes	Yes	
RSA0637-06	01/21/2009	SW-846	MW-2B-93	Water	Yes	Yes		Yes	Yes	
RSA0637-07	01/21/2009	SW-846	FB012109	Water	Yes	Yes		Yes	Yes	
RSA0637-08	01/21/2009	SW-846	Trip Blank	Water	Yes	Yes		Yes	Yes	

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

VALIDATION PERFORMED BY: Mary Ann Doyle

SIGNATURE: 

DATE: March 23, 2009

PEER REVIEW: Dennis Capria

DATE: March 30, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-02 (MW-3B-93 - Water)						**Sampled: 01/20/09 16:50**			**Recvd: 01/21/09 15:00**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	**0.0276**		0.00200	0.000280	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
Cadmium, Dissolved	ND		0.00100	0.000330	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
Chromium, Dissolved	**0.00112**	J	0.00400	0.000880	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
Cobalt, Dissolved	ND		0.00400	0.00106	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
Copper, Dissolved	**0.00140**	J	0.0100	0.00126	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
Zinc, Dissolved	ND		0.0100	0.00360	mg/L	1.00	01/23/09 23:45	AH	9A22071	6010B
General Chemistry Parameters										
Total Cyanide	ND		10.0	5.00	ug/L	1.00	01/23/09 11:02	jmm	9A22099	9012A
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.96	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
2,4-Dinitrotoluene	ND		10	0.45	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
2,6-Dinitrotoluene	ND		10	0.51	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
4-Methylphenol	ND		10	0.35	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
4-Nitroaniline	ND		50	0.46	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Acenaphthylene	ND		10	0.047	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Benzoic acid	ND		150	100	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Bis(2-chloroethyl)ether	ND		10	0.18	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.8	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Di-n-butyl phthalate	**0.36**	J	10	0.30	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Naphthalene	**0.32**	J	10	0.12	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Phenol	ND		10	0.45	ug/L	1.00	02/12/09 00:42	JLG	9A21080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*125 %*						02/12/09 00:42	JLG	9A21080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*86 %*						02/12/09 00:42	JLG	9A21080	8270C
Surr: 2-Fluorophenol (20-120%)	*48 %*						02/12/09 00:42	JLG	9A21080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*90 %*						02/12/09 00:42	JLG	9A21080	8270C
Surr: Phenol-d5 (16-120%)	*37 %*						02/12/09 00:42	JLG	9A21080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*91 %*						02/12/09 00:42	JLG	9A21080	8270C
Total Metals by SW 846 Series Methods										
Barium	**0.0332**		0.00200	0.000280	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Cadmium	ND		0.00100	0.000330	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Chromium	**0.00178**	J	0.00400	0.000880	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Cobalt	ND		0.00400	0.00106	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Copper	ND		0.0100	0.00126	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Zinc	**0.00373**	J	0.0100	0.00360	mg/L	1.00	01/23/09 19:12	TWS	9A22068	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-02 (MW-3B-93 - Water) - cont.							**Sampled: 01/20/09 16:50**		**Recvd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		3.0	0.93	ug/L	1.00	01/31/09 20:48	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*102 %*						01/31/09 20:48	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*99 %*						01/31/09 20:48	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*103 %*						01/31/09 20:48	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*100 %*						01/31/09 20:48	PQ	9A31011	8260B

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THE LEADER IN ENVIRONMENTAL TESTING

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Albany, NY 12205

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Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-03 (DUP-1 - Water)						**Sampled: 01/20/09**			**Recvd: 01/21/09 15:00**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	**0.0246**		0.00200	0.000280	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
Cadmium, Dissolved	ND		0.00100	0.000330	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
Chromium, Dissolved	ND		0.00400	0.000880	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
Cobalt, Dissolved	ND		0.00400	0.00106	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
Copper, Dissolved	**0.00174**	J	0.0100	0.00126	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
Zinc, Dissolved	ND		0.0100	0.00360	mg/L	1.00	01/23/09 23:50	AH	9A22071	6010B
General Chemistry Parameters										
Total Cyanide	ND		10.0	5.00	ug/L	1.00	01/23/09 11:03	jmm	9A22099	9012A
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.94	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
2,4-Dinitrotoluene	ND		10	0.44	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
4-Methylphenol	ND		10	0.35	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
4-Nitroaniline	ND		50	0.45	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Acenaphthylene	ND		10	0.046	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Benzoic acid	ND		150	98	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Bis(2-chloroethyl)ether	ND		10	0.18	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.7	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Di-n-butyl phthalate	**0.33**	J	10	0.29	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Phenol	ND		10	0.44	ug/L	1.00	02/12/09 01:05	JLG	9A21080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*123 %*						02/12/09 01:05	JLG	9A21080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*87 %*						02/12/09 01:05	JLG	9A21080	8270C
Surr: 2-Fluorophenol (20-120%)	*47 %*						02/12/09 01:05	JLG	9A21080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*92 %*						02/12/09 01:05	JLG	9A21080	8270C
Surr: Phenol-d5 (16-120%)	*36 %*						02/12/09 01:05	JLG	9A21080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*91 %*						02/12/09 01:05	JLG	9A21080	8270C
Total Metals by SW 846 Series Methods										
Barium	**0.0333**		0.00200	0.000280	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Cadmium	ND		0.00100	0.000330	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Chromium	**0.00210**	J	0.00400	0.000880	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Cobalt	ND		0.00400	0.00106	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Copper	ND		0.0100	0.00126	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Zinc	**0.00498**	J	0.0100	0.00360	mg/L	1.00	01/23/09 19:17	TWS	9A22068	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B

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THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-03 (DUP-1 - Water) - cont.						**Sampled: 01/20/09**			**Recvd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		3.0	0.93	ug/L	1.00	01/31/09 21:15	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*100 %*						01/31/09 21:15	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*99 %*						01/31/09 21:15	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*104 %*						01/31/09 21:15	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*98 %*						01/31/09 21:15	PQ	9A31011	8260B

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Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-04 (MW-5A-07 - Water)						**Sampled: 01/21/09 10:45**			**Recvd: 01/21/09 15:00**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	**0.129**		0.00200	0.000280	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
Cadmium, Dissolved	ND		0.00100	0.000330	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
Chromium, Dissolved	ND		0.00400	0.000880	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
Cobalt, Dissolved	ND		0.00400	0.00106	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
Copper, Dissolved	ND		0.0100	0.00126	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
Zinc, Dissolved	ND		0.0100	0.00360	mg/L	1.00	01/23/09 23:55	AH	9A22071	6010B
General Chemistry Parameters										
Total Cyanide	ND		10.0	5.00	ug/L	1.00	01/23/09 11:03	jmm	9A22099	9012A
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.93	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
2,6-Dinitrotoluene	ND		10	0.49	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
4-Methylphenol	ND		10	0.34	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Benzoic acid	ND		140	97	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Phenol	ND		10	0.43	ug/L	1.00	02/12/09 01:28	JLG	9A21080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*127 %*						02/12/09 01:28	JLG	9A21080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*86 %*						02/12/09 01:28	JLG	9A21080	8270C
Surr: 2-Fluorophenol (20-120%)	*45 %*						02/12/09 01:28	JLG	9A21080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*87 %*						02/12/09 01:28	JLG	9A21080	8270C
Surr: Phenol-d5 (16-120%)	*34 %*						02/12/09 01:28	JLG	9A21080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*89 %*						02/12/09 01:28	JLG	9A21080	8270C
Total Metals by SW 846 Series Methods										
Barium	**0.138**		0.00200	0.000280	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Cadmium	ND		0.00100	0.000330	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Chromium	**0.218**		0.00400	0.000880	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Cobalt	ND		0.00400	0.00106	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Copper	0.00434	J	0.0100	0.00126	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Zinc	0.00618	J	0.0100	0.00360	mg/L	1.00	01/23/09 19:22	TWS	9A22068	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B

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Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-04 (MW-5A-07 - Water) - cont.						**Sampled: 01/21/09 10:45**			**Recvd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		3.0	0.93	ug/L	1.00	01/31/09 21:43	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*104 %*						01/31/09 21:43	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*100 %*						01/31/09 21:43	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*105 %*						01/31/09 21:43	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*100 %*						01/31/09 21:43	PQ	9A31011	8260B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-05 (MW-2A-93 - Water)						**Sampled: 01/21/09 11:05**			**Recvd: 01/21/09 15:00**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	0.119		0.00200	0.000280	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
Cadmium, Dissolved	ND		0.00100	0.000330	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
Chromium, Dissolved	ND		0.00400	0.000880	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
Cobalt, Dissolved	ND		0.00400	0.00106	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
Copper, Dissolved	ND		0.0100	0.00126	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
Zinc, Dissolved	0.00460	J	0.0100	0.00360	mg/L	1.00	01/24/09 00:11	AH	9A22071	6010B
General Chemistry Parameters										
Total Cyanide	ND		10.0	5.00	ug/L	1.00	01/23/09 11:06	jmm	9A22099	9012A
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.95	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
2,4-Dinitrotoluene	ND		10	0.44	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
4-Methylphenol	ND		10	0.35	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
4-Nitroaniline	ND		50	0.45	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Acenaphthylene	ND		10	0.047	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Benzoic acid	ND		150	99	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Bis(2-chloroethyl)ether	ND		10	0.18	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.7	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Di-n-butyl phthalate	ND		10	0.30	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Phenol	ND		10	0.44	ug/L	1.00	02/12/09 01:52	JLG	9A21080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*126 %*						02/12/09 01:52	JLG	9A21080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*86 %*						02/12/09 01:52	JLG	9A21080	8270C
Surr: 2-Fluorophenol (20-120%)	*43 %*						02/12/09 01:52	JLG	9A21080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*88 %*						02/12/09 01:52	JLG	9A21080	8270C
Surr: Phenol-d5 (16-120%)	*35 %*						02/12/09 01:52	JLG	9A21080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*85 %*						02/12/09 01:52	JLG	9A21080	8270C
Total Metals by SW 846 Series Methods										
Barium	0.124		0.00200	0.000280	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Cadmium	ND		0.00100	0.000330	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Chromium	0.00167	J	0.00400	0.000880	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Cobalt	ND		0.00400	0.00106	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Copper	ND		0.0100	0.00126	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Zinc	0.00571	J	0.0100	0.00360	mg/L	1.00	01/23/09 19:27	TWS	9A22068	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND	D03	4.0	1.2	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
2-Butanone	ND	D03	20	5.3	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Acetone	ND	D03	20	5.4	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Benzene	ND	D03	4.0	0.66	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Bromochloromethane	ND	D03	4.0	0.49	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Carbon disulfide	ND	D03	4.0	0.78	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Chlorobenzene	ND	D03	4.0	1.3	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Chloroform	ND	D03	4.0	1.3	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Ethylbenzene	ND	D03	4.0	0.74	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Methylene Chloride	ND	D03	4.0	1.8	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Toluene	ND	D03	4.0	2.0	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Trichloroethene	ND	D03	4.0	0.70	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Vinyl chloride	ND	D03	4.0	0.97	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B

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THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-05 (MW-2A-93 - Water) - cont.							**Sampled: 01/21/09 11:05**		**Recvd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	D03	12	3.7	ug/L	4.00	01/31/09 22:11	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*102 %*	*D03*					01/31/09 22:11	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*96 %*	*D03*					01/31/09 22:11	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*104 %*	*D03*					01/31/09 22:11	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*99 %*	*D03*					01/31/09 22:11	PQ	9A31011	8260B

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465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

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Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-06 (MW-2B-93 - Water)						**Sampled: 01/21/09 12:55**			**Recvd: 01/21/09 15:00**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	0.0259		0.00200	0.000280	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
Cadmium, Dissolved	ND		0.00100	0.000330	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
Chromium, Dissolved	ND		0.00400	0.000880	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
Cobalt, Dissolved	ND		0.00400	0.00106	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
Copper, Dissolved	ND		0.0100	0.00126	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
Zinc, Dissolved	ND		0.0100	0.00360	mg/L	1.00	01/24/09 00:16	AH	9A22071	6010B
General Chemistry Parameters										
Total Cyanide	ND		10.0	5.00	ug/L	1.00	01/23/09 11:07	jmm	9A22099	9012A
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.92	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
2,6-Dinitrotoluene	ND		10	0.49	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
4-Methylphenol	ND		10	0.34	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Benzoic acid	ND		140	96	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Naphthalene	**0.21**	J	10	0.11	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Phenol	ND		10	0.43	ug/L	1.00	02/12/09 02:15	JLG	9A21080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*122 %*						02/12/09 02:15	JLG	9A21080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*80 %*						02/12/09 02:15	JLG	9A21080	8270C
Surr: 2-Fluorophenol (20-120%)	*40 %*						02/12/09 02:15	JLG	9A21080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*81 %*						02/12/09 02:15	JLG	9A21080	8270C
Surr: Phenol-d5 (16-120%)	*30 %*						02/12/09 02:15	JLG	9A21080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*84 %*						02/12/09 02:15	JLG	9A21080	8270C
Total Metals by SW 846 Series Methods										
Barium	**0.0312**		0.00200	0.000280	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Cadmium	ND		0.00100	0.000330	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Chromium	**0.00185**	J	0.00400	0.000880	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Cobalt	ND		0.00400	0.00106	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Copper	ND		0.0100	0.00126	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Zinc	**0.00385**	J	0.0100	0.00360	mg/L	1.00	01/23/09 19:32	TWS	9A22068	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-06 (MW-2B-93 - Water) - cont.						**Sampled: 01/21/09 12:55**			**Reevd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		3.0	0.93	ug/L	1.00	01/31/09 22:38	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*102 %*						01/31/09 22:38	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*98 %*						01/31/09 22:38	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*106 %*						01/31/09 22:38	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*99 %*						01/31/09 22 38	PQ	9A31011	8260B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
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Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-07 (FB 012109 - Water)						**Sampled: 01/21/09 13:30**			**Recvd: 01/21/09 15:00**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	0.000350	J	0.00200	0.000280	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
Cadmium, Dissolved	ND		0.00100	0.000330	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
Chromium, Dissolved	ND		0.00400	0.000880	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
Cobalt, Dissolved	ND		0.00400	0.00106	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
Copper, Dissolved	ND		0.0100	0.00126	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
Zinc, Dissolved	ND		0.0100	0.00360	mg/L	1.00	01/24/09 00:31	AH	9A22072	6010B
General Chemistry Parameters										
Total Cyanide	ND		10.0	5.00	ug/L	1.00	01/23/09 11:08	jmm	9A22099	9012A
Semivolatile Organics by GC/MS										
1,2,4,5-Tetrachlorobenzene	ND		4.9	0.79	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
2,4-Dimethylphenol	ND		10	0.93	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
2,6-Dinitrotoluene	ND		10	0.49	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
4-Methylphenol	ND		10	0.34	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Acenaphthylene	ND		10	0.046	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Benzoic acid	ND		150	97	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Phenol	ND		10	0.43	ug/L	1.00	02/12/09 02:38	JLG	9A21080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*126 %*						02/12/09 02:38	JLG	9A21080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*90 %*						02/12/09 02:38	JLG	9A21080	8270C
Surr: 2-Fluorophenol (20-120%)	*50 %*						02/12/09 02:38	JLG	9A21080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*99 %*						02/12/09 02:38	JLG	9A21080	8270C
Surr: Phenol-d5 (16-120%)	*37 %*						02/12/09 02:38	JLG	9A21080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*91 %*						02/12/09 02:38	JLG	9A21080	8270C
Total Metals by SW 846 Series Methods										
Barium	ND		0.00200	0.000280	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Cadmium	ND		0.00100	0.000330	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Chromium	ND		0.00400	0.000880	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Cobalt	ND		0.00400	0.00106	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Copper	ND		0.0100	0.00126	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Lead	ND		0.00500	0.00290	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Zinc	ND		0.0100	0.00360	mg/L	1.00	01/23/09 19:50	TWS	9A22068	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-07 (FB 012109 - Water) - cont.						**Sampled: 01/21/09 13:30**			**Recvd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Xylenes, total	ND		3.0	0.93	ug/L	1.00	01/31/09 23:06	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*105 %*						01/31/09 23:06	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*101 %*						01/31/09 23:06	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*108 %*						01/31/09 23:06	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*101 %*						01/31/09 23:06	PQ	9A31011	8260B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSA0637

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 01/21/09
Reported: 03/04/09 09:27

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSA0637-08 (TRIP BLANK - Water)						**Sampled: 01/21/09**			**Recvd: 01/21/09 15:00**	
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Xylenes, total	ND		3.0	0.93	ug/L	1.00	01/31/09 23:34	PQ	9A31011	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*105 %*						01/31/09 23:34	PQ	9A31011	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*101 %*						01/31/09 23:34	PQ	9A31011	8260B
Surr: Dibromofluoromethane (70-130%)	*105 %*						01/31/09 23:34	PQ	9A31011	8260B
Surr: Toluene-d8 (71-126%)	*100 %*						01/31/09 23:34	PQ	9A31011	8260B

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: ARCADIS	Project Manager: Marc Sanford	Date: 01/21/09	Chain of Custody Number: 087032
Address: 465 New Karner Rd.	Telephone Number (Area Code)/Fax Number: (518) 452 7826 / (518) 452 4398	Lab Number:	Page 1 of 1
City: Albany; State: NY; Zip Code: 12205	Site Contact:	Lab Contact: Candace Fox	
Project Name and Location (State): Sherwin Williams : Newstead, NY	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: AY000386.0001			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: SPLOAS M.8260	TCL BN M.8270	TCN M.9012	Sp. Met. ERM List	Dis. Metals	Special Instructions/ Conditions of Receipt
MW-1B-93	01/20/09	1550		X			2		2	2	—		2	2	1	1	1	Field Blank not filtered – preservative was rinsed prior to collection.
MW-1B-93 MS				X			2		2	2	1		2	2	1	1	1	
MW-1B-93 MSD				X			2		2	2	1		2	2	1	1	1	
MW-3B-93		1650		X			2		2	2	1		2	2	1	1	1	
DUP-1		—		X			2		2	2	1		2	2	1	1	1	
MW-5A-07	01/21/09	1045		X			2		2	2	1		2	2	1	1	1	
MW-2A-93		1105		X			2		2	2	1		2	2	1	1	1	
MW-2B-93		1255		X			2		2	2	1		2	2	1	1	1	
FB 012109		1330		X			2		2	2	1		2	2	1	1	1	
Trip Blank				X			X			2			2					

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

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

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By		1530	1. Received By	1/21/09	15:00
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

3 @ 2.0°C

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

ARCADIS
Infrastructure, environment, facilities

Imagine the result

The Sherwin-Williams Company, Inc..

Data Usability Summary Report

NEWSTEAD, NEW YORK

Volatiles, Semivolatiles, Metals, and Misc.

SDG: RSB0564

Analyses Performed By:
TestAmerica Laboratories
Buffalo, New York

Report: #9900R
Project: AY000386.0001.0001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #RSB0564 for samples collected in association with the Newstead Superfund Site, Newstead, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PEST/ PCB	MET	MISC
MW-4A-93	RSA0564-01	Water	02/17/2009		X	X		X	X
MW-3A-08	RSA0564-02	Water	02/17/2009		X	X		X	X
Trip Blank	RSA0564-03	Water	02/17/2009		X	X		X	X

ANALYTICAL DATA PACKAGE DOCUMENTATION

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

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

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B (VOCs), and Method 8270C (SVOCs). Data was reviewed in accordance with USEPA National Functional Guidelines of October 1999 and January 2005 and USEPA Region II SOPs associated with USEPA SW-846 Volatile Organic Compounds by SW-846 Method 8260B(SOP HW-24 Revision 2, October 2006) and Validating Semi-volatile Organic Compounds by SW-846 Method 8270 (SOP HW-22 Revision 3, October 2006).

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

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

- Concentration (C) Qualifiers

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

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

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

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

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

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

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

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

  R The sample results are rejected.

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

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

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

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

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

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

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

3. Mass Spectrometer Tuning

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

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

5. Surrogates/System Monitoring Compounds

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

All surrogate recoveries were within control limits.

6. Internal Standard Performance

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

All internal standard responses were within control limits.

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

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

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

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

8. Laboratory Control Sample (LCS) Analysis

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

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

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy
of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Field duplicate analysis was not performed on a sample location within this SDG.

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR VOCs

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

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

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

SEMIVOLATILE VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

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

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

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

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

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

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

3. Mass Spectrometer Tuning

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

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration

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

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

4.2 Continuing Calibration

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

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

5. Surrogates/System Monitoring Compounds

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

All surrogate recoveries were within control limits.

6. Internal Standard Performance

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

All internal standard responses were within control limits.

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

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

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

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

8. Laboratory Control Sample (LCS) Analysis

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

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

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Field duplicate analysis was not performed on a sample location within this SDG.

10. Compound Identification

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

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR SVOCs

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

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

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010B (metals total and dissolved) and 9012A (cyanide). Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

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

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

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

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

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

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

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

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

  R The sample results are rejected.

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

METALS ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.

All samples were analyzed within the specified holding times.

2. Blank Contamination

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

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

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

3. Calibration

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

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All CRDL standard recoveries were within control limits.

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

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

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Field duplicate analysis was not performed on a sample location within this SDG.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

The serial dilution performed on sample location MW-3A-08 exhibited %D within the control limit.

8. Furnace Analysis QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR METALS

METALS: SW-846 6010B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X		X	
C. Equipment/Field Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)					X
ICP Serial Dilution		X		X	
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X		X	
ICP Interference Check		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

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

Method	Matrix	Holding Time	Preservation
Cyanide by SW-846 9012A	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

2. Blank Contamination

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

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

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

3. Calibration

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

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

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

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Field duplicate analysis was not performed on a sample location within this SDG.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

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

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA SW-846 9012A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)					X
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %Ds		X		X	
Raw Data		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

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

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST	MET	MISC	
RSB0564-01	02/17/2009	SW-846	MW-4A-93	Water	Yes	Yes		Yes	Yes	
RSB0564-02	02/17/2009	SW-846	MW-3A-08	Water	Yes	Yes		Yes	Yes	
RSB0564-03	02/17/2009	SW-846	Trip Blank	Water	Yes	Yes		Yes	Yes	

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

VALIDATION PERFORMED BY: Mary Ann Doyle

SIGNATURE:

DATE: March 23, 2009

PEER REVIEW: Dennis Capria

DATE: March 30, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSB0564

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 02/18/09
Reported: 03/19/09 15:35

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSB0564-01 (MW-4A-93 - Water)						**Sampled: 02/17/09 14:50**			**Recvd: 02/18/09 14:20**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	0.020		0.0020	0.00028	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
Cadmium, Dissolved	ND		0.0010	0.00033	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
Chromium, Dissolved	ND		0.0040	0.00088	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
Cobalt, Dissolved	0.0012	J	0.0040	0.0011	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
Copper, Dissolved	ND		0.010	0.0013	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
Zinc, Dissolved	0.0043	J	0.010	0.0036	mg/L	1.00	02/20/09 17:15	TWS	9B19046	6010B
General Chemistry Parameters										
Total Cyanide	ND		10	5.0	ug/L	1.00	02/20/09 08:25	jmm	9B19013	9012A
Semivolatile Organics by GC/MS										
4-Methylphenol	ND		10	0.35	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
2,4-Dimethylphenol	ND		10	0.95	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
2,4-Dinitrotoluene	ND		10	0.44	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
4-Nitroaniline	ND		50	0.45	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Acenaphthylene	ND		10	0.047	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Benzoic acid	ND		150	99	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Bis(2-chloroethyl)ether	ND		10	0.18	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.7	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Di-n-butyl phthalate	ND		10	0.30	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Phenol	ND		10	0.44	ug/L	1.00	03/03/09 22:39	JLG	9B18080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*87 %*						03/03/09 22:39	JLG	9B18080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*76 %*						03/03/09 22:39	JLG	9B18080	8270C
Surr: 2-Fluorophenol (20-120%)	*34 %*						03/03/09 22:39	JLG	9B18080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*73 %*						03/03/09 22:39	JLG	9B18080	8270C
Surr: Phenol-d5 (16-120%)	*26 %*						03/03/09 22:39	JLG	9B18080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*38 %*						03/03/09 22:39	JLG	9B18080	8270C
Total Metals by SW 846 Series Methods										
Barium	0.022		0.0020	0.00028	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Cadmium	ND		0.0010	0.00033	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Chromium	0.0014	J	0.0040	0.00088	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Cobalt	0.0020	J	0.0040	0.0011	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Copper	0.0028	J	0.010	0.0013	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Lead	0.0050	J	0.0050	0.0029	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Zinc	0.011		0.010	0.0036	mg/L	1.00	02/20/09 16:03	AH	9B19056	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Acetone	2.5	J	5.0	1.3	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSB0564

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 02/18/09
Reported: 03/19/09 15:35

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSB0564-01 (MW-4A-93 - Water) - cont.						**Sampled: 02/17/09 14:50**			**Recvd: 02/18/09 14:20**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	03/02/09 23:35	ND	9C02020	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*98 %*						03/02/09 23:35	ND	9C02020	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*99 %*						03/02/09 23:35	ND	9C02020	8260B
Surr: Toluene-d8 (71-126%)	*95 %*						03/02/09 23:35	ND	9C02020	8260B

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSB0564

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 02/18/09
Reported: 03/19/09 15:35

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSB0564-02 (MW-3A-08 - Water)						**Sampled: 02/17/09 15:57**			**Recvd: 02/18/09 14:20**	
Dissolved Metals by SW 846 Series Methods										
Barium, Dissolved	**0.093**		0.0020	0.00028	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
Cadmium, Dissolved	ND		0.0010	0.00033	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
Chromium, Dissolved	ND		0.0040	0.00088	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
Cobalt, Dissolved	ND		0.0040	0.0011	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
Copper, Dissolved	ND		0.010	0.0013	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
Zinc, Dissolved	ND		0.010	0.0036	mg/L	1.00	02/20/09 17:33	TWS	9B19046	6010B
General Chemistry Parameters										
Total Cyanide	ND		10	5.0	ug/L	1.00	02/20/09 08:26	jmm	9B19013	9012A
Semivolatile Organics by GC/MS										
4-Methylphenol	ND		10	0.35	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
2,4-Dimethylphenol	ND		10	0.94	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
2,4-Dinitrotoluene	ND		10	0.44	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
4-Nitroaniline	ND		50	0.45	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Acenaphthylene	ND		10	0.046	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Benzoic acid	ND		150	98	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Bis(2-chloroethyl)ether	ND		10	0.18	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.7	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Phenol	ND		10	0.44	ug/L	1.00	03/03/09 23:02	JLG	9B18080	8270C
Surr: 2,4,6-Tribromophenol (52-132%)	*93 %*						03/03/09 23:02	JLG	9B18080	8270C
Surr: 2-Fluorobiphenyl (48-120%)	*85 %*						03/03/09 23:02	JLG	9B18080	8270C
Surr: 2-Fluorophenol (20-120%)	*39 %*						03/03/09 23:02	JLG	9B18080	8270C
Surr: Nitrobenzene-d5 (46-120%)	*84 %*						03/03/09 23:02	JLG	9B18080	8270C
Surr: Phenol-d5 (16-120%)	*30 %*						03/03/09 23:02	JLG	9B18080	8270C
Surr: p-Terphenyl-d14 (24-136%)	*46 %*						03/03/09 23:02	JLG	9B18080	8270C
Total Metals by SW 846 Series Methods										
Barium	**0.10**		0.0020	0.00028	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Cadmium	ND		0.0010	0.00033	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Chromium	**0.0024**	J	0.0040	0.00088	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Cobalt	ND		0.0040	0.0011	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Copper	**0.0030**	J	0.010	0.0013	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Zinc	**0.0084**	J	0.010	0.0036	mg/L	1.00	02/20/09 16:08	AH	9B19056	6010B
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Acetone	**2.0**	J	5.0	1.3	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Toluene	**5.5**		1.0	0.51	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSB0564

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 02/18/09
Reported: 03/19/09 15:35

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSB0564-02 (MW-3A-08 - Water) - cont.						**Sampled: 02/17/09 15:57**			**Recvd: 02/18/09 14:20**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	03/02/09 23:57	ND	9C02020	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*95 %*						03/02/09 23:57	ND	9C02020	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*96 %*						03/02/09 23:57	ND	9C02020	8260B
Surr: Toluene-d8 (71-126%)	*91 %*						03/02/09 23:57	ND	9C02020	8260B

ARCADIS U.S., Inc. - Albany, NY
465 New Karner Road
Albany, NY 12205

Work Order: RSB0564

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 02/18/09
Reported: 03/19/09 15:35

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSB0564-03 (TRIP BLANK - Water)						**Sampled: 02/17/09**			**Recvd: 02/18/09 14:20**	
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Benzene	ND		1.0	0.16	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Bromochloromethane	ND		1.0	0.12	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Trichloroethene	ND		1.0	0.18	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	03/03/09 00:19	ND	9C02020	8260B
Surr: 1,2-Dichloroethane-d4 (66-137%)	*94 %*						03/03/09 00:19	ND	9C02020	8260B
Surr: 4-Bromofluorobenzene (73-120%)	*96 %*						03/03/09 00:19	ND	9C02020	8260B
Surr: Toluene-d8 (71-126%)	*93 %*						03/03/09 00:19	ND	9C02020	8260B

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	Marc Sanford	02/17/09	087031
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
465 New Karner Rd.	518 452 7826 / 518 452 4398		
City	**State** / **Zip Code**	**Site Contact**	**Lab Contact**
Albany	NY / 12205		Candace Fox
Project Name and Location (State)	**Carrier/Waybill Number**		
Sherwin Williams Newstead (NY)			
Contract/Purchase Order/Quote No.			
AY000386.0001.00001			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Other	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Other	Analysis (Attach list if more space is needed): SP VOAs	FCL BN	T. CN	SP Metals	Dissolved Metals							Special Instructions/ Conditions of Receipt
MW-4A-03	02/17/09	1480		X				2		2	2	1			2	2	1	1	1							
MW-3A-08	02/17/09	1597		X				2		2	2	1			2	2	1	1	1*							* This sample was not filtered in the field Please lab. filter MW-3A-08
Trip Blank	—	—		X							2				2											

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

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

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

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Kathleen Miles	02/18/09		Andrew Bygrenko	2.18.09	1420
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

2.0

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