ARCADIS

Infrastructure, environment, buildings

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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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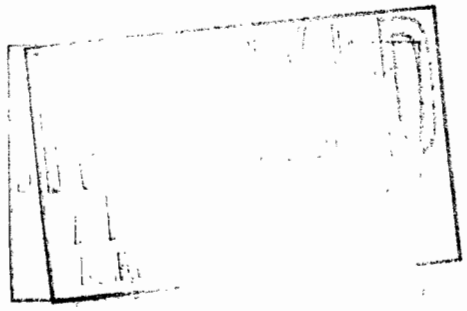

From:
Lisa Collins

Date:
September 28, 2009

Subject:
July 2009 Semi-Annual Groundwater Sampling Report

ARCADIS Project No..
AY000386.0001

We are sending you:

☐ **Attached** ☐ **Under Separate Cover Via _____ the Following Items:**

☐ Shop Drawings ☐ Plans ☐ Specifications ☐ Change Order
☐ Prints ☐ Samples ☐ Copy of Letter ☒ Reports
☐ Other:

Copies	Date	Drawing No.	Rev.	Description	Action*
1	9/28/09			July 2009 Semi-Annual Groundwater Sampling Report, Newstead Superfund Site, Newstead, New York	

Action*

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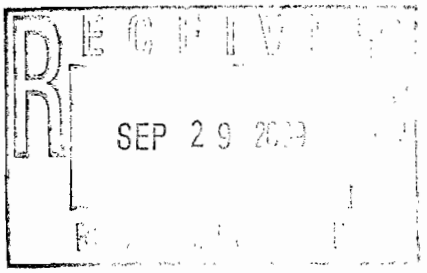
☒ Other: Sent via email to Ken Stroebel

Comments:

ARCADIS
Infrastructure, environment, buildings



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

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

ENVIRONMENT

Dear Mr. Stroebel,

Date:
September 28, 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 July 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 July 22/23, 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. Prior to the sampling event, monitoring well MW1A-93 was repaired. The cement pad for monitoring well MW1A-93 had heaved which exposed the inner well casing and caused freezing of the water column that prevented the well from being sampled the previous event in January.

Groundwater samples were collected from monitoring wells, MW1A-93, MW1B-93, MW2A-93, MW2B-93, MW3A-08, MW3B-93, MW4A-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 in 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 July 22, 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 an easterly horizontal component of groundwater flow during the July 2009 event. This differs from the previous July 2008 and February

2009 groundwater flow patterns and flow direction. However, site conditions were observed to be relatively drier during the July 2009 sampling event, and there was no water present in the ditch along Fletcher Road which may have altered the site hydrology resulting in the observed groundwater flow patterns.

Laboratory Analytical Results

VOCs analytical results for the July 2009 sampling events are presented in Table 2. Several VOCs were detected at very low concentrations, however, each was below the project action limit.

SVOC analytical results are presented in Table 3. SVOCs were not detected in groundwater samples at groundwater concentrations above the laboratory detection limits.

Total and dissolved (filtered) metals analytical results are presented in Table 4. All detected metals and dissolved metals were below the project action limits. Barium and dissolved barium are consistently detected in all monitoring wells, but remain below the project action limits. In the previous sampling event (January 2009) total chromium was detected above the project action plan in MW5A-07 (218 ug/L). In the July 2009 sampling event the total chromium in MW5A-07 decreased to below the project action limit.

Schedule

As approved by the USEPA, ARCADIS will delay the next semi-annual round of groundwater sampling until the spring of 2010 (late March or early April) to avoid freezing conditions.

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
Staff 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

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Tables

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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	Jul-09
MW1A-93	597.81	593.31	593.2	**594.21**	**589.93**	590.23
MW-1B-93	597.06	589.81	591.13	592.37	584.56	589.55
MW2A-93	597.88	593.2	593.08	593.26	589	590.75
MW-2B-93	597.9	589.89	589.91	591.87	584.05	589.49
MW3A-08	597.49	593.61	593.3	**593.99**	590.12	590.42
MW-3B-93	596.06	589.44	590.1	591.92	585.06	588.66
MW-4A-93	597.24	593.47	593.28	**594.24**	589.94	590.54
MW-5A-07	595.88	592.15	592.52	593.66	589.65	590.28

BOLD = Depth to ice

Bold values indicate that well water was frozen.

Table 2. Volatile Organic compounds in Groundwater, Semi-Annual Groundwater Monitoring-July 2009, Newstead Superfund Site, Newstead, New York

Volatile Organics	Project Action Limit	MW1A-93				MW1B-93			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
1,1-Dichloroethene	5 ug/L	< 1.0	< 1.0	NS	< 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	< 5.0 J	< 5.0	< 5.0
Acetone	50 ug/L	< 5.0	< 5.0	NS	< 5.0	< 5.0	< 5.0 J	< 5.0	< 5.0
Benzene	1 ug/L	< 1.0	< 1.0	NS	< 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
Carbon Disulfide	60 ug/L	< 1.0	< 1.0	NS	< 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
Chloroform	7 ug/L	< 1.0	< 1.0	NS	< 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
Methylene chloride	5 ug/L	< 1.0	< 1.0	NS	< 1.0	< 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
Trichloroethene	5 ug/L	< 1.0	< 1.0	NS	< 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
Total Xylenes	5 ug/L	< 3.0	< 3.0	NS	< 2.0	< 3.0	< 3.0	< 3.0	< 2.0

Notes:

Results reported in ug/L

Project Action Limits per NYSDEC Ambient Ground Water Quality Standards and Guidance Values as listed on TOGS 1.1.1 (June 1998) and in 6 NYCRR 703.5.

J = Indicates an estimated value.

NS = Did not sample. Monitonng Well MW1a-93 was frozen solid dunng both sampling events in January and February.

D03 Dilution required due to excessive foaming

Table 2. Volatile Organic compounds in Groundwater, Semi-Annual Groundwater Monitoring-July 2009, Newstead Superfund Site, Newstead, New York

Volatile Organics	Project Action Limit	MW2A-93				MW2B-93				MW3A-08			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Feb-09	Jul-09
1,1-Dichloroethene	5 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 1.0	< 1.0 J	< 1.0	< 1.1	< 1.0	< 1.0	<1.0	< 1.0
2-Butanone	50 ug/L	< 5.0	< 5.0 J	< 5.0	< 20 D03	< 5.0	< 5.0 J	< 5.0	< 5.0	< 5.0	< 5.0 J	<5.0	< 5.0
Acetone	50 ug/L	3.6	<5.0 J	< 5.0	< 20 D03	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.0 J	< 5.0
Benzene	1 ug/L	1	<1.0	< 1.0	< 4.0 D03	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0
Bromochloromethane	50 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 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	< 1.0	< 4.0 D03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0
Chlorobenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0
Chloroform	7 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 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	< 1.0	4.5 D03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.5	< 1.0
Trichloroethene	5 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0
Vinyl Chloride	2 ug/L	< 1.0	< 1.0	< 1.0	< 4.0 D03	< 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	< 3.0	< 8.0 D03	< 3.0	< 3.0	< 3.0	< 2.0	< 3.0	< 3.0	<2.0	< 2.0

Notes:

Results reported in ug/L

Project Action Limits per NYSDEC Ambient Ground Water Quality Standards and Guidance Values as listed on 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 February.

D03 Dilution required due to excessive foaming

Table 2. Volatile Organic compounds in Groundwater, Semi-Annual Groundwater Monitoring-July 2009, Newstead Superfund Site, Newstead, New York

Volatile Organics	Project Action Limit	MW3B-93				MW4A-93				MW5A-93			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Sep-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
1,1-Dichloroethene	5 ug/L	< 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	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	< 5.0 J	< 5.0	< 5.0	< 5.0
Acetone	50 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	<5.0	2.5 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	1 ug/L	< 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	< 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	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	0.44 J
Chlorobenzene	5 ug/L	< 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	< 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	< 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	< 1.0	0.98 J	<1.0	<1.0 J	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 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	< 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	< 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	< 3.0	< 2.0	<3.0	<3.0	<2.0	<2.0	< 3.0	< 3.0	< 3.0	< 2.0

Notes:

Results reported in ug/L

Project Action Limits per NYSDEC Ambient Ground Water Quality Standards and Guidance Values as listed on 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 February.

D03 Dilution required due to excessive foaming

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

Semi-Volatile Organics	Project Action Limit	MW1A-93				MW1B-93			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
2,4-Dimethylphenol	50 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<10
2,4-Dinitrotoluene	5 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<10
2,6-Dinitrotoluene	5 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<10
4-Methylphenol	5 ug/L	< 10	< 10	NS	< 9.9	< 10	< 10	<10	< 9.6
4-Nitroaniline	5 ug/L	< 48	< 48	NS	< 50	< 48	< 48	<50	< 50
Acenaphthylene	5 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	< 10
Benzoic acid	NA	< 140	< 140	NS	< 150	< 140	< 140	<150	< 140
Bis (2-chloroethyl) ether	1 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<10
Bis (2-ethylhexy) phthalate	5 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<10
Diethyl phthalate	50 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<10
Di-n-butyl phthalate	50 ug/L	< 10	< 10	NS	< 10	< 10	< 10	0.59 J	<10
Naphthalene	10 ug/L	< 10	< 10	NS	< 10	< 10	< 10	0.35 J	<10
Phenol	1 ug/L	< 10	< 10	NS	< 10	< 10	< 10	<10	<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 February 2009.

NS = Not sampled

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

Semi-Volatile Organics	Project Action Limit	MW2A-93				MW2B-93			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
2,4-Dimethylphenol	50 ug/L	<10	<9	<10	<10	<10	<9	<10	<10
2,4-Dinitrotoluene	5 ug/L	<10	<9	<10	<10	<10	<9	<10	<10
2,6-Dinitrotoluene	5 ug/L	<10	<9	<10	<10	<10	<9	<10	<10
4-Methylphenol	5 ug/L	<10	<9	<10	< 11	<10	<9	<10	< 9.6
4-Nitroaniline	5 ug/L	<48	<47	<50	<50	<48	<47	<50	< 50
Acenaphthylene	5 ug/L	<10	<9	<10	< 10	<10	<9	<10	<10
Benzoic acid	NA	< 140	< 140	<150	< 170	< 140	< 140	<140	< 140
Bis (2-chloroethyl) ether	1 ug/L	<10	<9	<10	<10	<10	<9	<10	<10
Bis (2-ethylhexy) phthalate	5 ug/L	<10	<9	<10	<10	<10	<9	<10	<10
Diethyl phthalate	50 ug/L	<10	<9	<10	<10	<10	<9	<10	<10
Di-n-butyl phthalate	50 ug/L	0.3	<9	<10	<10	<10	<9	<10	<10
Naphthalene	10 ug/L	<10	<9	<10	<10	<10	< 0.2	0.21 J	<10
Phenol	1 ug/L	<10	<9	<10	<10	<10	<9	<10	<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 February 2009.

NS = Not sampled

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

Semi-Volatile Organics	Project Action Limit	MW3A-08				MW3B-93			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
2,4-Dimethylphenol	50 ug/L	<10	<9	< 10	< 10	<10	<9	<10	<10
2,4-Dinitrotoluene	5 ug/L	<10	<9	< 10	< 10	<10	<9	<10	<10
2,6-Dinitrotoluene	5 ug/L	<10	<9	< 10	< 10	<10	<9	<10	<10
4-Methylphenol	5 ug/L	<10	<9	< 10	< 9.5	<10	<9	<10	< 9.7
4-Nitroaniline	5 ug/L	<48	<47	< 50	< 50	<48	<47	<50	< 50
Acenaphthylene	5 ug/L	<10	<9	< 10	< 10	<10	<9	<10	< 10
Benzoic acid	NA	< 140	< 140	< 150	< 140	< 140	< 140	<150	<150
Bis (2-chloroethyl) ether	1 ug/L	<10	<9	< 10	< 10	<10	<9	<10	<10
Bis (2-ethylhexy) phthalate	5 ug/L	<10	<9	< 10	< 10	<10	<9	<10	<10
Diethyl phthalate	50 ug/L	<10	0.3 J	< 10	< 10	<10	<9	<10	<10
Di-n-butyl phthalate	50 ug/L	0.4	<9	< 10	< 10	<10	<9	0.36 J	<10
Naphthalene	10 ug/L	<10	<9	< 10	< 10	0.3	<9	0.32 J	<10
Phenol	1 ug/L	<10	<9	< 10	< 10	<10	<9	<10	< 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 February 2009.

NS = Not sampled

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

Semi-Volatile Organics	Project Action Limit	MW4A-93				MW5A-07			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
2,4-Dimethylphenol	50 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
2,4-Dinitrotoluene	5 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
2,6-Dinitrotoluene	5 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
4-Methylphenol	5 ug/L	< 10	< 10	< 10	< 9.7	<10	<9	<10	< 9.6
4-Nitroaniline	5 ug/L	< 48	< 48	< 50	< 50	<48	<47	<50	< 50
Acenaphthylene	5 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
Benzoic acid	NA	<140	360 J	< 150	< 150	< 140	< 140	<140	< 140
Bis (2-chloroethyl) ether	1 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
Bis (2-ethylhexy) phthalate	5 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
Diethyl phthalate	50 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 10
Di-n-butyl phthalate	50 ug/L	0.8	< 10	< 10	< 10	0.4	<9	<10	< 10
Naphthalene	10 ug/L	0.3	< 1.0	< 10	< 10	<10	<9	<10	< 10
Phenol	1 ug/L	< 10	< 10	< 10	< 10	<10	<9	<10	< 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 February 2009.

NS = Not sampled

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

Total Metals	Project Action Limit	MW1A-93				MW1B-93			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	28.2	39.3	NS	62.7	71.5	66.2	60.5	54.7
Cadium	5 ug/l	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	0.55	< 1.0
Chromium	50 ug/l	< 4.0	15.3	NS	7.3	<4.0	<4.0	8.06	12
Cobalt	NA	< 4.0	< 4.0	NS	2.3 J	<4.0	<4.0	1.4	1.5 J
Copper	200 ug/l	< 10.0	< 10.0	NS	6.1 J	<10.0	<10.0	4.42	4.3 J
Lead	25 ug/l	< 5.0	< 5.0	NS	< 5.0	<5.0	<5.0	<5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	NS	12	<10.0	<10.0	7.91	4.9 J
Soluable Metals	Project Action Limit	MW-1A-93				MW1B-93			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	27.7	30.3	NS	50.2	67.8	64.8	56.4	45
Cadium	5 ug/l	< 1.0	< 1.0	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	< 4.0	NS	< 4.0	< 4.0	< 4.0	2.27	3.6 J
Cobalt	NA	< 4.0	< 4.0	NS	0.7 J	< 4.0	< 4.0	< 4.0	< 4.0
Copper	200 ug/l	< 10.0	< 10.0	NS	< 10.0	< 10.0	< 10.0	1.67	< 10.0
Lead	25 ug/l	< 5.0	< 5.0	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	NS	4.9 J	< 10.0	< 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 both
sampling events in January and
February.

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

Total Metals	Project Action Limit	MW2A-93				MW2B-93			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	151	138	124	128	35.6	25.2	31.2	29.8
Cadium	5 ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	<4.0	14.5	1.67	3.3 J	<4.0	<4.0	1.85	1.0 J
Cobalt	NA	<4.0	<4.0	<4.0	< 1.0	<4.0	<4.0	<4.0	< 4.0
Copper	200 ug/l	<10.0	<10.0	<10.0	1.3 J	<10.0	<10.0	<10.0	< 10
Lead	25 ug/l	<5.0	<5.0	<5.0	< 5.0	<5.0	<5.0	<5.0	< 5.0
Zinc	2000 ug/l	<10.0	<10.0	5.71	< 10	<10.0	<10.0	3.85	< 10
Soluable Metals	Project Action Limit	MW2A-93				MW2B-93			
		Jan-08	Jul-08	Jan-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	121	127	119	114	33.8	27.5	25.9	26.6
Cadium	5 ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Cobalt	NA	< 4.0	< 4.0	< 4.0	1.0 J	< 4.0	< 4.0	< 4.0	< 4.0
Copper	200 ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Lead	25 ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	4.6	6.5 J	< 10.0	< 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 both
sampling events in January and
February.

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

Total Metals	Project Action Limit	MW3A-08				MW3B-93			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	23	66.0	103	112	26.7	35.8	33.2	69.5
Cadium	5 ug/l	< 1.0	< 1.0	< 01.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	<4.0	<4.0	2.36 J	3.4 J	< 4.0	< 4.0	1.78	13.3
Cobalt	NA	<4.0	<4.0	< 04.0	< 4.0	< 4.0	< 4.0	<4.0	2.1 J
Copper	200 ug/l	<10.0	<10.0	3.05 J	< 10.0	< 10.0	< 10.0	<10.0	5.6 J
Lead	25 ug/l	<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0	3.4 J
Zinc	2000 ug/l	<10.0	<10.0	8.37 J	< 10	< 10.0	< 10.0	3.73	11.2
Soluable Metals	Project Action Limit	MW3A-08				MW3B-93			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	21.1	52.4	92.8	113	23.9	21.8	27.6	42.9
Cadium	5 ug/l	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	< 4.0	<4.0	< 4.0	< 4.0	< 4.0	1.12	< 4.0
Cobalt	NA	< 4.0	< 4.0	<4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Copper	200 ug/l	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	< 10.0	1.4	< 10
Lead	25 ug/l	< 5.0	< 5.0	<5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 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.

NS = Did not sample. Monitoring Well
MW1A-93 was frozen solid both
sampling events in January and
February.

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

Total Metals	Project Action Limit	MW4A-93				MW5A-07			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	28.1	29.9	21.9	19.9	173	147	138	128
Cadium	5 ug/l	< 1.0	< 1.0	< 1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	< 4.0	1.40 J	< 4.0	6.2	7.5	218	3.8 J
Cobalt	NA	< 4.0	< 4.0	1.97 J	1.6 J	< 4.0	< 4.0	<4.0	< 4.0
Copper	200 ug/l	< 10.0	10.4	2.75 J	< 10	< 10.0	< 10.0	4.34	< 10
Lead	25 ug/l	< 5.0	< 5.0	5.01	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	36.4	10.6	< 10.0	< 10.0	< 10.0	6.18	< 10
Soluable Metals	Project Action Limit	MW4A-93				MW5A-07			
		Jan-08	Jul-08	Feb-09	Jul-09	Jan-08	Jul-08	Jan-09	Jul-09
Barium	1000 ug/l	26.1	32.3	19.8	18.6	163	140	129	119
Cadium	5 ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium	50 ug/l	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Cobalt	NA	< 4.0	< 4.0	1.17 J	1.7 J	< 4.0	< 4.0	< 4.0	< 4.0
Copper	200 ug/l	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0
Lead	25 ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Zinc	2000 ug/l	< 10.0	< 10.0	4.26 J	< 10.0	< 10.0	< 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.

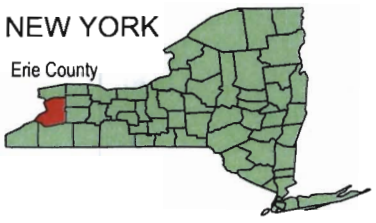
NS = Did not sample. Monitoring Well
MW1A-93 was frozen solid both
sampling events in January and
February.

FIGURES

ARCADIS

Figures

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



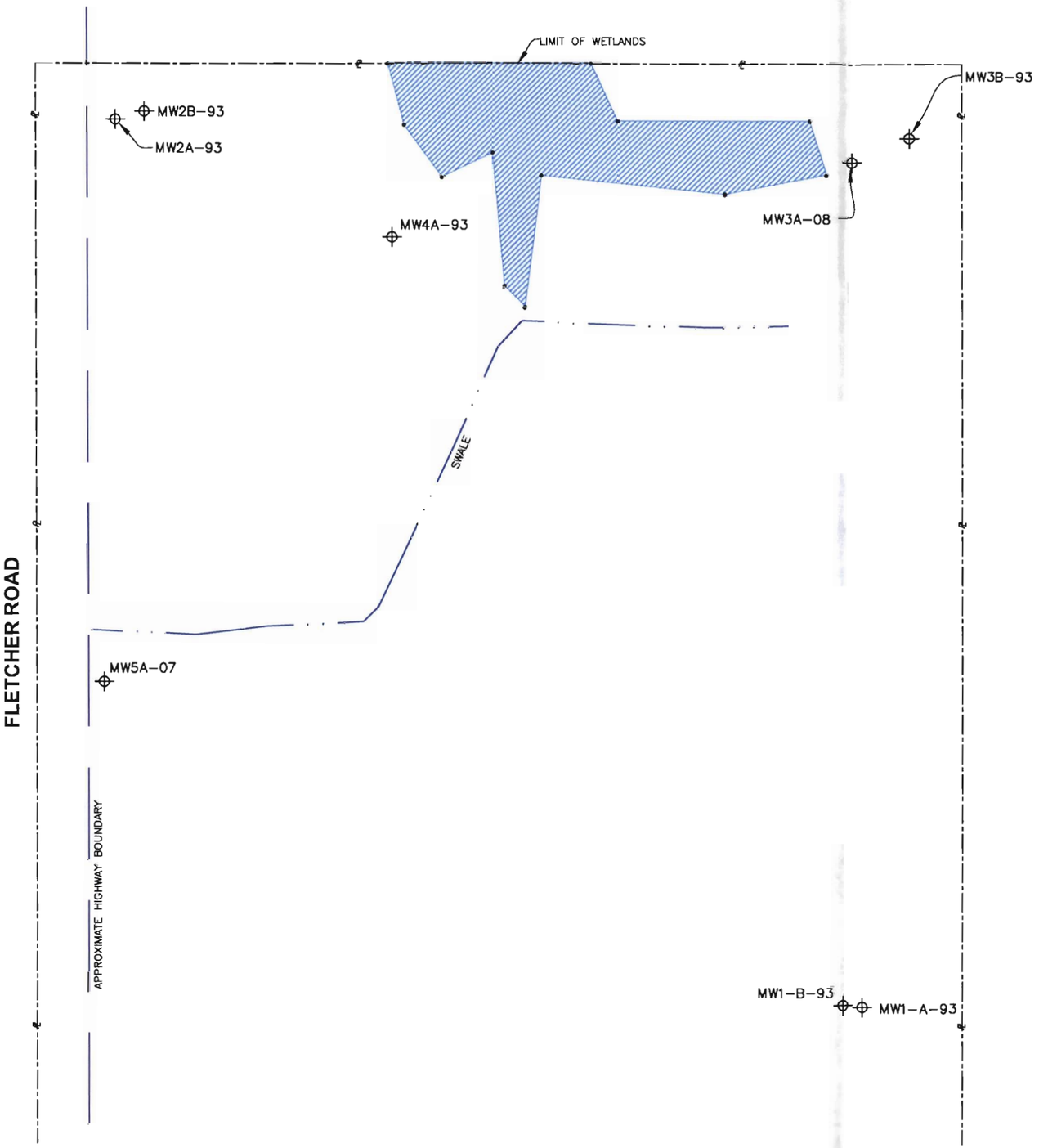
0 2000'
SCALE IN FEET

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
- MONITORING 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' 120'
GRAPHIC SCALE

SHERWIN - WILLIAMS
NEWSTEAD, NEW YORK
NEWSTEAD SUPERFUND SITE

MONITORING WELL LOCATIONS

ARCADIS

FIGURE
2

C:\TY:(KNOXVILLE) DIVGROUP:(ENV) DB:(B.ALTOM) LD:(Opt) PIC:(Opt) PM:(M.SANFORD) TM:(Opt)
G:\ENV\NYAY000386_SW-Newstead\F2 AY000386_site.dwg LAYOUT: 2 SAVED: 10/3/2008 2:50 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 10/3/2008 2:50 PM BY: ALTOM, BRENDA
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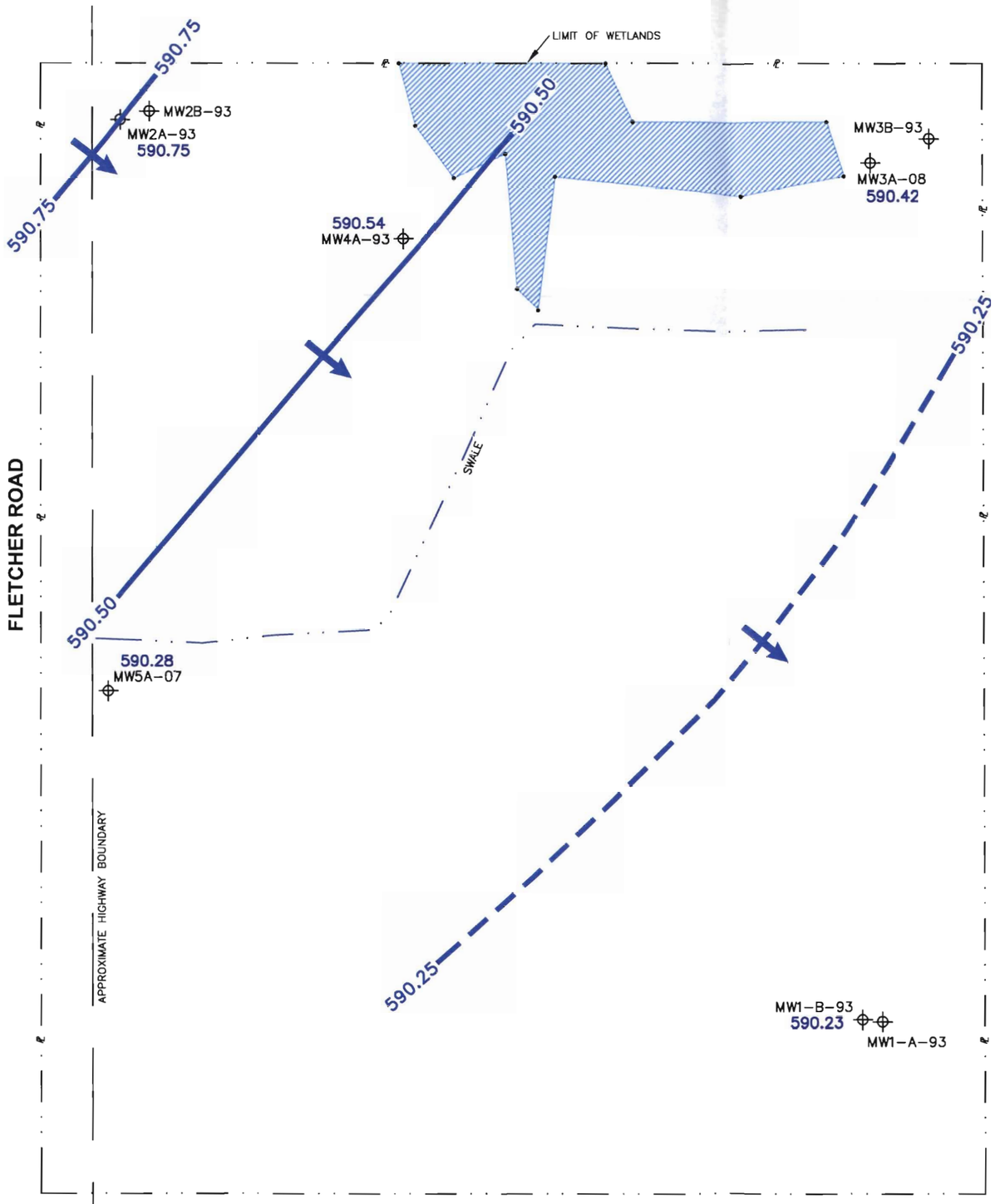

LEGEND:

- APPROXIMATE BOUNDARY
- WETLANDS
- APPROXIMATE HWY. BOUNDARY
- SWALE
- MONITORING WELL
- 590.75 GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- 590.75 GROUNDWATER ELEVATION
- GENERAL DIRECTION OF GROUNDWATER FLOW

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' 120'

GRAPHIC SCALE

SHERWIN - WILLIAMS
NEWSTEAD, NEW YORK
NEWSTEAD SUPERFUND SITE

SHALLOW GROUNDWATER CONTOURS JULY 22, 2009

ARCADIS

FIGURE **3a**

CITY:(ORIGINATED IN KNOXVILLE) SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: (B ALTOM) RAllen LD:(Opt) PIC:(Opt) PM:(M SANFORD) G:\ENVCAD\SYRACUSE\ACTIVITY\000386\600\100001\DWG\AY000100W02.dwg LAYOUT: 3A SAVED: 9/25/2009 3:43 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 9/25/2009 3:43 PM BY: ALLEN ROYCE
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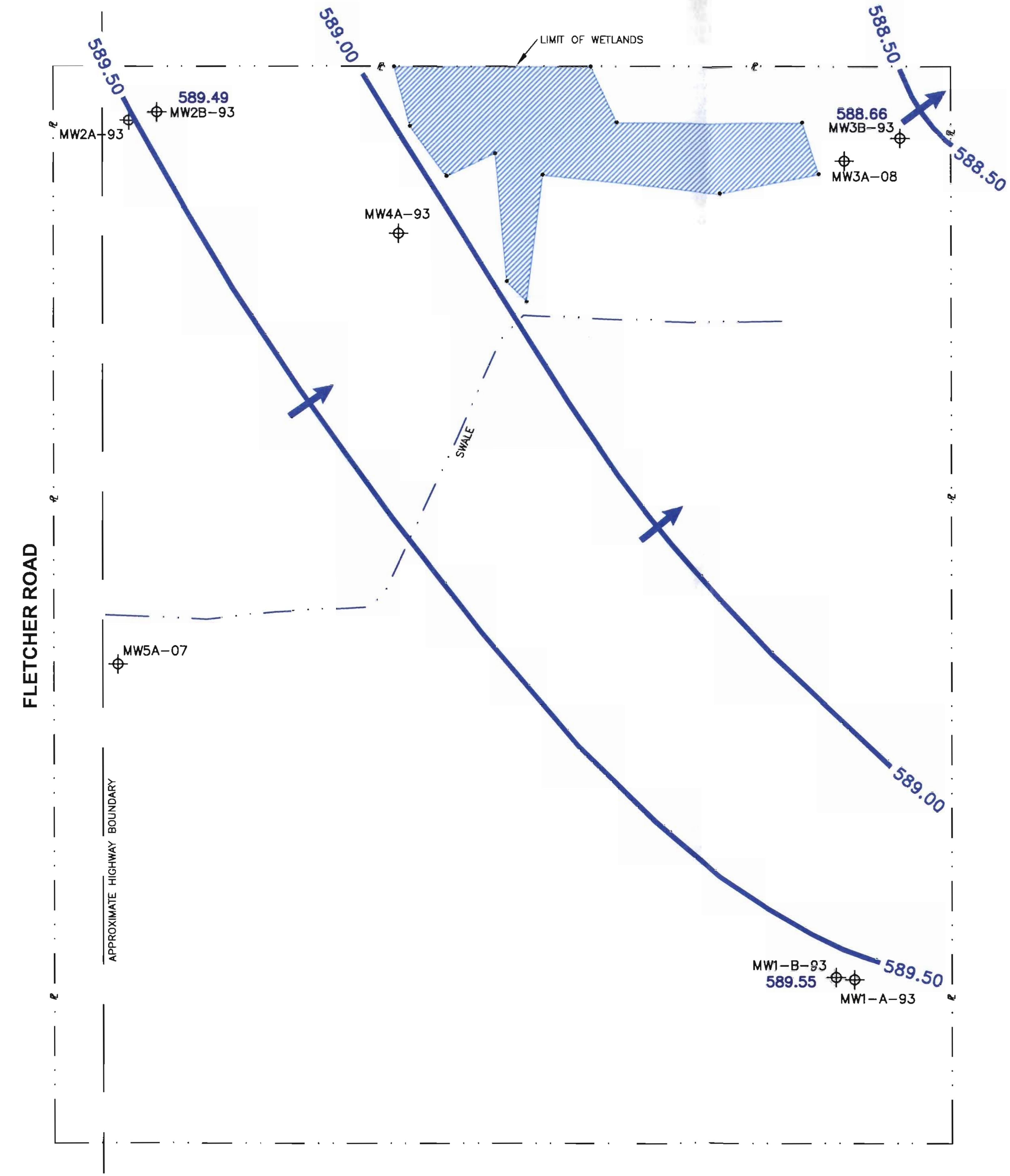


LEGEND:

- APPROXIMATE BOUNDARY
- WETLANDS
- APPROXIMATE HWY. BOUNDARY
- SWALE
- MONITORING WELL
- 589.00 GROUNDWATER CONTOUR
- 588.66 GROUNDWATER ELEVATION
- GENERAL DIRECTION OF GROUNDWATER FLOW

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' 120'
GRAPHIC SCALE

SHERWIN - WILLIAMS
NEWSTEAD, NEW YORK
NEWSTEAD SUPERFUND SITE

DEEP GROUNDWATER CONTOURS JULY 22, 2009

ARCADIS

FIGURE **3b**

APPENDICES

APPENDIX A

ARCADIS

Appendix A

Analytical Reports

APPENDIX B

ARCADIS

Appendix B

Groundwater Sampling Logs

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. Newstead / A4600386.0001 Well MW 1A-93 Date 7/23/09

Total depth (ft bmp) 16.86 Screened Interval (ft bmp) 3.8 - 13.8 BGS Casing Diameter (inches) 2"

Measuring Point Description Top of inner casing Static Water Level (ft bmp) 7.58

Pump Intake (ft bmp) 11.5' Sampling Time: Begin 10.19 End 1029

Weather Rain 70's Pump type: grundfos

Sampled by : KB / AF Water Quality Meter: Quanta / Gunotte, 2020c

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
0850								1443	
0905								1104	
0915								289	
0916	150	8.18	6.49	16.97	0.585	119	2.69	166	
0921		8.15	6.81	16.55	0.586	88	1.87	133	
0926		8.13	6.86	16.70	0.586	72	1.95	109	
0931		8.11	6.90	16.80	0.589	63	2.01	80.4	
0936		8.10	6.93	16.83	0.589	54	2.14	62.3	
0941		8.10	6.94	16.91	0.589	51	2.25	55.6	
0946		8.09	6.96	16.97	0.589	48	2.33	39.4	
0951		8.08	6.96	17.00	0.590	47	2.40	31.0	
0956		8.08	6.97	17.04	0.590	48	2.47	24.3	
10.01		8.07	6.97	17.06	0.591	48	2.50	18.0	
10:06		8.06	6.98	17.07	0.591	50	2.52	20.9	
10:11		8.05	6.98	17.15	0.591	51	2.55	17.70	
10:16		8.05	6.98	17.15	0.590	54	2.58	16.00	

Color: Clear

Odor: none

Appearance: Clear

Analyses: TCL CN, Species

Pump start: 0850

Pump stop: 1030

Gallons removed: 3.5

Dup/MS/MSD —

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. AY000386.0001 Well MW 1B-93 Date 7/23/09

Total depth (ft bmp) 42.90 Screened Interval (ft bmp) 36-40 BGS Casing Diameter (inches) 2"

Measuring Point Description T. of inner casing Static Water Level (ft bmp) 7.51

Pump Intake (ft bmp) 39.0 Sampling Time: Begin 1159 End 1216

Weather Rain 70's / Sun-Cloudy Pump type: Grundfos

Sampled by : ~~GM/GA~~ KB/AF Water Quality Meter: Quanta Lamotte 2020c

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
1155	*					77		35.5	
1100		7.55	9.48	14.52	0.394	~~0.377~~	2.56	57.3	
1105		8.31	9.67	13.29	0.394	76	2.14	33.3	
1110		9.30	9.72	13.86	0.391	69	1.61	22.4	
1115		10.05	9.74	13.81	0.397	64	1.55	21.6	
1120		11.56	9.75	14.41	0.394	59	1.45	24.8	
1125		12.09	9.75	13.98	0.391	54	1.45	22.2	
1130		12.71	9.76	14.34	0.391	51	1.39	20.7	
1135		13.60	9.78	14.21	0.391	48	1.37	23.4	
1140		14.35	9.78	14.87	0.397	43	1.33	17.4	
1145		14.90	9.76	15.24	0.391	41	1.27	17.8	
1150		15.75	9.75	14.48	0.391	38	1.30	15.6	
1155		16.45	9.76	14.14	0.391	36	1.31	16.2	

Color: Clear

Odor: none

Appearance: Clear

Pump start: 1055

Pump stop: 1250

Gallons removed:

Dup/MS/MSD —

Notes: *Notes Have to continually increase Rate of Pump to keep for consistent flow

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. Newstead / A4am386.0001 Well MW-2A-93 Date 7/22/09

Total depth (ft bmp) 17.83 Screened Interval (ft bmp) 4.9 - 14.9 BGS Casing Diameter (inches) 2"

Measuring Point Description T of inner Casing Static Water Level (ft bmp) 7.13

Pump Intake (ft bmp) 16.5 Sampling Time: Begin 1615 End 1630

Weather overcast 70's Pump type: Grundfos

Sampled by : AF Water Quality Meter: Horiba / 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
1525	100	8.11	7.10	15.93	1.75	-117	2.87	15.1	
1530	100	8.20	6.96	16.68	2.68	-118	1.27	90.5	
1535	100	8.20	6.90	17.19	3.98	-117	0.64	178	
1540	100	8.20	6.89	18.30	3.38	-124	0.22	104.5	
1545	100	8.20	6.90	18.47	3.88	-125	0.08	45.0	
1550	100	8.20	6.90	18.41	3.88	-125	0.00	24.3	
1555	100	8.20	6.91	18.34	3.49	-126	0.00	16.6	
1600	100	8.20	6.92	18.38	3.97	-128	0.00	10.15	
1605	100	8.20	6.93	18.33	3.87	-135	0.00	10.59	
1610	100	8.20	6.93	18.48	3.87	-138	0.00	10.11	
1615	100	8.20	6.94	18.44	3.84	-135	0.00	9.60	

Color: Clear

Odor: None

Appearance: Slightly Cloudy

Analyses:

Pump start: 15:25

Pump stop: 1630

Gallons removed: 2

Dup/MS/MSD —

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. Newstead AY000386.0001 Well MW 2B 93 Date 7/23/09

Total depth (ft bmp) 45.80 Screened Interval (ft bmp) 38.8-42.8 BGS Casing Diameter (inches) 2"

Measuring Point Description TOP OF PVC Static Water Level (ft bmp) 8.40

Pump Intake (ft bmp) 44.00 Sampling Time: Begin 1025 End 1055

Weather Cloudy, Rainy Pump type: Grundfos

Sampled by AF Water Quality Meter: Horiba / 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
832	100	8.50						196	
842	100							174	
850	100							119	
900	100							92.3	
910	100							88.9	
920	100	9.63						61.1	
925	100	9.63						59.6	
930	100	9.64	10.57	16.12	0.454	102	2.98	45.8	
9:35	100	9.64	6.61	16.78	0.465	94	2.68	52.4	
9:40	100	9.64	6.95	16.81	0.464	90	2.57	47.1	
9:45	100	9.65	7.08	16.67	0.464	84	2.51	44.4	
9:50	100	9.65	7.32	16.23	0.464	71	2.32	43.7	
9:55	100	9.65	7.43	16.35	0.459	65	2.17	39.9	
10:00	100	9.65	7.62	15.72	0.459	58	2.00	33.1	
10:05	100	9.65	7.86	15.61	0.456	49	1.76	26.4	
10:10	100	9.64	7.97	15.71	0.457	44	1.69	25.6	
10:15	100	9.65	7.96	15.62	0.460	40	1.68	24.5	

Color: Clear

Odor: None

Appearance: Cloudy

Pump start: 825

Pump stop: 1055

Gallons removed: 3

Dup/MS/MSD MS/MSD

Analyses:

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. Newstead/A4m0386.04 Well MW3A-93 Date 7/22/09

Total depth (ft bmp) 17.20 Screened Interval (ft bmp) 4.4-14.4BGS Casing Diameter (inches) 2"

Measuring Point Description TOP of INNER CASING Static Water Level (ft bmp) 7.07

Pump Intake (ft bmp) 15.0' Sampling Time: Begin 11:46 End 12:00

Weather Partly Sunny Pump type: GRUNDFOS

Sampled by: Andy Fraser Water Quality Meter: HORIBA /La Motte

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
10:14	100							234	
10:16	100							150	
10:21	100							58.3	
10:30	100							45.9	
10:34	100	7.36	6.51	16.50	0.621	-147	2.01	30.5	
10:39	100	7.36	6.60	16.95	0.624	-147	1.76	23.9	
10:44	100	7.37	6.77	16.63	0.627	-152	1.47	23.4	
10:49	100	7.37	6.83	17.01	0.637	-156	1.24	17.1	
10:54	100	7.37	6.90	16.95	0.669	-158	1.07	17.1	
10:59	100	7.37	6.96	17.15	0.707	-161	0.85	17.7	
11:04	100	7.37	7.00	16.84	0.716	-163	0.71	15.4	
11:09	100	7.37	7.03	17.07	0.779	-165	0.57	16.5	
11:14	100	7.37	7.07	17.39	0.823	-168	0.41	16.5	
11:19	100	7.35	7.10	17.68	0.833	-169	0.35	13.6	
11:24	100	7.34	7.13	17.87	0.909	-174	0.23	11.3	
11:29	100	7.34	7.15	18.34	0.988	-176	0.15	11.8	
11:34	100	7.34	7.11	18.34	0.999	-176	0.13	11.4	
11:40	100	7.34	7.14	18.64	0.999	-179	0.05	11.3	

Color: Clear

Odor: None

Appearance: Slightly Cloudy

Pump start: 10:14

Pump stop: 12:01

Gallons removed: 2

Dup/MS/MSD /

Analyses:

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of

Project/No. Newstead/A4000386.0001 Well MW3B-93 Date 7/22/09

Total depth (ft bmp) 51.48 Screened Interval (ft bmp) 44-49 BGS Casing Diameter (inches) 2"

Measuring Point Description T.O.C. Inner Casing Static Water Level (ft bmp) 7.40

Pump Intake (ft bmp) 48.50 - *46.50 Sampling Time: Begin 1220 End 1240

Weather overcast 70's Pump type: grundfos

Sampled by: KBI Water Quality Meter: Quanta

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
1021								1.42	
1023	150	6.73	9.85	1.63	0.644	34	10.37	25.8	
1028	↓	7.46	9.47	14.46	0.375	31	2.43	14.4	
1038		8.10	9.41	15.06	0.373	32	1.72	8.87	
1043	100	8.39	9.36	15.00	0.378	31	1.44	9.61	
1048	↓	8.56	9.38	14.75	0.375	29	1.30	9.94	
1053		8.87	9.45	15.67	0.374	21	1.39	12.2	
1058		8.97	9.60	14.65	0.373	18	1.19	15.2	
1103		9.20	9.68	14.53	0.372	14	1.15	19.6	
1108		9.34	9.73	14.84	0.370	11	1.14	29.3	
1113		9.32	9.79	15.40	0.372	4	1.12	40.0	
1118		9.37	9.83	15.68	0.372	-1	1.04	68.0	
1123	50	9.69	9.75	1400	0.377	4	0.95	102	
1128	↓	9.73	9.77	14.69	0.375	-2	0.92	104	
1133		9.73	9.82	15.27	0.373	-8	0.92	116	
1138	↓	9.75	9.88	1545	0.375	-18	0.88	113	
1143		9.81	9.91	9.86	0.450	-27	1.14	127	* Pulled pump up to try to clear up the turbidity
1148		9.88	9.83	9.57	0.452	-41	1.11	115	
1158		9.91	10.01	8.29	0.457	-58	1.53	72.5	
1203		9.95	10.15	8.26	0.463	-59	1.63	70.8	
1208		9.95	10.17	8.27	0.468	-58	1.63	72.3	
1213		9.95	10.20	8.31	0.466	-58	1.60	76.1	

Color: Cloudy very light brown

Odor: none

Appearance: Cloudy

Analyses: Sp VOCs TCN Sp Metals / spm+tals dis. TCL BN (7)

Pump start: 1020

Pump stop: 1241

Gallons removed: 2.70

Dup/MS/MSD Dup

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. Newstead/A4000386.0001 Well MW 4A-93 Date 7/22/09

Total depth (ft bmp) 16.00 Screened Interval (ft bmp) 5-15' BGS Casing Diameter (inches) 2"

Measuring Point Description T of Inner Casing Static Water Level (ft bmp) 6.70

Pump Intake (ft bmp) 15.00' Sampling Time: Begin 14:45 End

Weather Partly Sunny Pump type: Grundfos

Sampled by : AF Water Quality Meter: Horiba / La Motte

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
13:25	100	8.05						195	
13:30	100							131	
13:35	100	9.05	7.17	17.59	2.63	-89	4.28	43.4	
13:40	100	8.45	7.02	17.56	3.50	-89	1.95	43.4	
13:45	100	8.31	6.94	17.05	4.85	-105	0.74	19.7	
13:50	100	8.32	6.94	17.06	3.17	-107	0.66	18.6	
13:55	100	8.32	6.96	17.12	2.45	-99	1.07	17.7	
14:00	100	8.32	6.97	17.11	2.42	-92	1.17	11.9	
14:05	100	8.37	6.97	17.19	2.44	-89	1.18	12.7	
14:10	100	8.34	6.98	17.19	2.45	-89	1.08	7.48	
14:15	100	8.31	6.99	17.21	2.47	-89	0.98	7.12	
14:20	100	8.31	7.00	17.24	2.49	-90	0.88	7.22	
14:25	100	8.31	7.01	17.24	2.50	-90	0.88	4.53	
14:30	100	8.31	7.02	17.56	2.64	-92	0.64	3.91	
14:35	100	8.30	7.01	17.56	2.68	-93	0.59	3.55	
14:40	100	8.29	7.02	17.54	2.70	-95	0.51	3.20	

Color: Clear Pump start: 13:25

Odor: None Pump stop:

Appearance: Slightly cloudy Gallons removed: 7

Dup/MS/MSD /

Analyses:

ARCADIS G&M

Low Flow Groundwater Sampling Form

Page 1 of 1

Project/No. Newstead/A4000386.0001 Well MW 5A-07 Date 7/22/09

Total depth (ft bmp) 17.20 Screened Interval (ft bmp) _____ Casing Diameter (inches) 2"

Measuring Point Description Top of inner casing Static Water Level (ft bmp) 5.60

Pump Intake (ft bmp) 16.20 Sampling Time: Begin 1450 End 1500

Weather Overcast · 70's muggy Pump type: grundfos

Sampled by: KB/AF Water Quality Meter: Quanta, Lamott 2020c

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
1330	150	6.00	7.44	24.94	0.423	-113	2.61	24.80	
1335	↓	10.07	7.55	21.59	0.254	-123	1.86	50.5	Black color Swampy odor
1340		6.10	7.64	20.80	0.163	-137	1.51	47.2	
1345		6.20	7.11	15.62	1.074	-153	1.58	34.0	
1350		6.24	7.72	15.38	1.071	-162	1.38	33.9	
1355	↓	6.26	7.74	15.64	1.062	-173	0.97	27.6	
1400		6.26	7.73	15.58	1.051	-175	0.79	14.5	
1405		6.26	7.65	15.53	1.047	-169	0.63	7.02	
1410		6.26	7.57	15.60	1.056	-161	0.52	3.56	
1415		6.26	7.50	15.71	1.063	-155	0.44	2.94	
1420		6.25	7.43	15.71	1.071	-151	0.34	2.21	
1425		6.25	7.39	15.74	1.072	-148	0.29	1.47	
1430		6.26	7.36	15.30	1.069	-146	0.25	2.56	
1435		6.26	7.31	15.32	1.075	-144	0.21	1.10	
1440		6.28	7.29	15.25	1.077	-143	0.20	1.10	
1445		6.28	7.26	15.80	1.085	-139	0.17	0.51	

Color: Clear

Odor: None

Appearance: Clear

Pump start: 1330

Pump stop: 1500

Gallons removed: 4.0

Dup/MS/MSD ___/___

Analyses: Sp VOCs, TCL BN, Sp. metals
Sp Metals- diss TCN (1)

APPENDIX C

ARCADIS

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: RSG0883

Analyses Performed By:
TestAmerica Laboratories
Buffalo, New York

Report: # 10705R
Project: AY000386.0001.0001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #RSG0883 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-3A-93	RSG0883-01	Water	07/22/09		X	X		X	X
MW-3B-93	RSG0883-02	Water	07/22/09		X	X		X	X
DUP-1	RSG0883-03	Water	07/22/09	MW-3B-93	X	X		X	X
MW-4A-93	RSG0883-04	Water	07/22/09		X	X		X	X
MW-5A-07	RSG0883-05	Water	07/22/09		X	X		X	X
MW-2A-93	RSG0883-06	Water	07/22/09		X	X		X	X
MW-1A-93	RSG0883-07	Water	07/23/09		X	X		X	X
MW-2B-93	RSG0883-08	Water	07/23/09		X	X		X	X
MW-1B-93	RSG0883-11	Water	07/23/09		X	X		X	X
FB-1	RSG0883-12	Water	07/23/09		X	X		X	X
Trip Blank	RSG0883-13	Water	07/23/09		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.

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 8260	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 detected in the associated QA blanks; however, the associated sample results were were non-detect. No other qualification of the sample results was required.

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 Analysis

The LCS/LCSD 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 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.

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	Methylene Chloride	0.98	ND(1.0)	AC

AC Acceptable
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 VOCs

VOCs: SW-846 8260	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
LCS/LCSD Precision (RPD)					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
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 Relative standard deviation
%R Percent recovery

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

RPD Relative percent difference
%D Percent difference

SEMI-VOLATILE 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.

4.3 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).

4.4 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

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 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.

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	All Compounds	ND	ND	AC

AC Acceptable
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 8270	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) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
F. Reconstructed ion chromatograms		X		X	
G. Quantitation Reports		X		X	
H. RT of sample compounds within the established RT windows		X		X	
I. Transcription/calculation errors present		X		X	
J. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%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 detected in the associated QA blanks; however, the associated sample results were non-detect. No other qualification of the sample results was required.

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/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

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

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD 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.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPD.

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 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.

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 (total)	0.0695	0.0743	AC
	Chromium (total)	0.0133	0.0128	
	Cobalt (total)	0.0021	0.0022	
	Copper (total)	0.0056	0.0053	
	Lead (total)	0.0034	0.0043	
	Zinc (total)	0.0112	0.0118	
	Barium (Dissolved)	0.0450	0.0186	

AC = Acceptable

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-2B-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. General Assessment

The calculated %D between the total and the dissolved sample results were within the control limit.

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 METAL

METALS; SW-846 6000/7000	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 9012	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 detected in the associated QA blanks; however, the associated sample results were non-detect. No other qualification of the sample results was required.

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/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

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

4.3 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD 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 analysis exhibited recoveries within the control limits.

4.4 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 MS/MSD was performed in replace of the laboratory duplicate analysis. Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Analyte
MW-2B-93	Cyanide

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

6. 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 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.

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	Cyanide	ND(10)	ND(10)	AC

ND = Not detected
AC = Acceptable

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%.

All LCS recoveries were within control limits, with the exception of the analytes associated with sample locations, as presented in the following table.

Sample Location	Analytes	LCS Recovery
MW-3A-93 MW-3B-93 DUP-1 MW-4A-93 MW-2A-93	Cyanide	> UL

The criteria used to evaluate LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified.

Control limit	Sample Result	Qualification
LCS (water) percent recovery 50% to 79%	Non-detect	UJ
	Detect	J
LCS (water) percent recovery <50%	Non-detect	R
	Detect	J
LCS (water) percent recovery >120%	Non-detect	No Action
	Detect	J
LCS (soil) percent recovery < lower limit	Non-detect	J
	Detect	J
LCS (soil) percent recovery > upper limit	Non-detect	No Action
	Detect	J

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 XXXX	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
F. Method blanks		X		X	
G. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/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 %R		X		X	
Raw Data		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

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

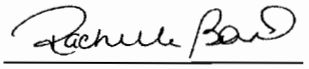
SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST	MET	MISC	
RSG0883-01	07/22/09	SW-846	MW-3A-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-02	07/22/09	SW-846	MW-3B-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-03	07/22/09	SW-846	DUP-1	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-04	07/22/09	SW-846	MW-4A-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-05	07/22/09	SW-846	MW-5A-07	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-06	07/22/09	SW-846	MW-2A-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-07	07/23/09	SW-846	MW-1A-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-08	07/23/09	SW-846	MW-2B-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-11	07/23/09	SW-846	MW-1B-93	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-12	07/23/09	SW-846	FB-1	Water	Yes	Yes		Yes	No	Cyanide - MS/MSD RPD
RSG0883-13	07/23/09	SW-846	Trip Blank	Water	Yes					

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

VALIDATION PERFORMED BY: Rachelle Borne

SIGNATURE: 

DATE: September 2, 2009

PEER REVIEW: Todd Church

DATE: September 2, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-01 (MW-3A-93 - Water)						**Sampled: 07/22/09 11:46**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/27/09 23:49	MF	9G27087	8260B
1,2-Dichloroethane-d4	*92 %*		*Surr Limits: (66-137%)*				*07/27/09 23:49*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*87 %*		*Surr Limits: (73-120%)*				*07/27/09 23:49*	*MF*	*9G27087*	*8260B*
Toluene-d8	*99 %*		*Surr Limits: (71-126%)*				*07/27/09 23:49*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.91	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.42	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.48	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
4-Methylphenol	ND		9.5	0.55	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.43	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Benzoic acid	ND		140	95	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.5	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.10	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.28	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
Phenol	ND		10	0.42	ug/L	1.00	07/25/09 20:19	ERK	9G24016	8270C
2,4,6-Tribromophenol	*94 %*		*Surr Limits: (52-132%)*				*07/25/09 20:19*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (48-120%)*				*07/25/09 20:19*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*39 %*		*Surr Limits: (20-120%)*				*07/25/09 20:19*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*75 %*		*Surr Limits: (46-120%)*				*07/25/09 20:19*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*07/25/09 20:19*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*59 %*		*Surr Limits: (24-136%)*				*07/25/09 20:19*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.112**		0.0020	0.0003	mg/L	1.00	07/27/09 23:47	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:15	DAN	9G24079	6010B
Chromium	**0.0034**	J	0.0040	0.0009	mg/L	1.00	07/27/09 23:47	DAN	9G24079	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/27/09 23:47	DAN	9G24079	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/27/09 23:47	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/27/09 23:47	DAN	9G24079	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/27/09 23:47	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-01 (MW-3A-93 - Water) - cont.						**Sampled: 07/22/09 11:46**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	0.113		0.0020	0.0003	mg/L	1.00	07/27/09 23:40	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/27/09 23:40	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/27/09 23:40	LMH	9G24045	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/27/09 23:40	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/27/09 23:40	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:03	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/27/09 23:40	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	U5	10.0	5.0	ug/L	1.00	07/27/09 10:12	jmm	9G24108	9012A

9-8-09

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
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Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-02 (MW-3B-93 - Water)						**Sampled: 07/22/09 12:20**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Methylene Chloride	**0.98**	J	1.0	0.44	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 00:16	MF	9G27087	8260B
1,2-Dichloroethane-d4	*82 %*		*Surr Limits: (66-137%)*				*07/28/09 00:16*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*88 %*		*Surr Limits: (73-120%)*				*07/28/09 00:16*	*MF*	*9G27087*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-126%)*				*07/28/09 00:16*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.93	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
4-Methylphenol	ND		9.7	0.56	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.046	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Benzoic acid	ND		150	97	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
Phenol	ND		10	0.43	ug/L	1.00	07/25/09 20:43	ERK	9G24016	8270C
2,4,6-Tribromophenol	*94 %*		*Surr Limits: (52-132%)*				*07/25/09 20:43*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*76 %*		*Surr Limits: (48-120%)*				*07/25/09 20:43*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*37 %*		*Surr Limits: (20-120%)*				*07/25/09 20:43*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*68 %*		*Surr Limits: (46-120%)*				*07/25/09 20:43*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*26 %*		*Surr Limits: (16-120%)*				*07/25/09 20:43*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*71 %*		*Surr Limits: (24-136%)*				*07/25/09 20:43*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.0695**		0.0020	0.0003	mg/L	1.00	07/27/09 23:53	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:20	DAN	9G24079	6010B
Chromium	**0.0133**		0.0040	0.0009	mg/L	1.00	07/27/09 23:53	DAN	9G24079	6010B
Cobalt	**0.0021**	J	0.0040	0.0005	mg/L	1.00	07/27/09 23:53	DAN	9G24079	6010B
Copper	**0.0056**	J	0.0100	0.0013	mg/L	1.00	07/27/09 23:53	DAN	9G24079	6010B
Lead	**0.0034**	J	0.0050	0.0029	mg/L	1.00	07/27/09 23:53	DAN	9G24079	6010B
Zinc	**0.0112**		0.0100	0.0015	mg/L	1.00	07/27/09 23:53	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

ARCADIS U.S., Inc. - Albany, NY
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Work Order: RSG0883

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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-02 (MW-3B-93 - Water) - cont.						**Sampled: 07/22/09 12:20**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	**0.0429**		0.0020	0.0003	mg/L	1.00	07/27/09 23:45	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/27/09 23:45	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/27/09 23:45	LMH	9G24045	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/27/09 23:45	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/27/09 23:45	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:08	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/27/09 23:45	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:13	jmm	9G24108	9012A

9.8.09 (DB)

ARCADIS U.S., Inc. - Albany, NY
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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-03 (DUP-1 - Water)						**Sampled: 07/22/09**			**Recvd: 07/23/09 14:20**	
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 00:40	MF	9G27087	8260B
1,2-Dichloroethane-d4	*98 %*		*Surr Limits: (66-137%)*				*07/28/09 00:40*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*90 %*		*Surr Limits: (73-120%)*				*07/28/09 00:40*	*MF*	*9G27087*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-126%)*				*07/28/09 00:40*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.91	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.42	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.48	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
4-Methylphenol	ND		9.4	0.55	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.43	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.044	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Benzoic acid	ND		140	94	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.5	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.10	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.28	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
Phenol	ND		10	0.42	ug/L	1.00	07/25/09 21:08	ERK	9G24016	8270C
2,4,6-Tribromophenol	*99 %*		*Surr Limits: (52-132%)*				*07/25/09 21:08*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*83 %*		*Surr Limits: (48-120%)*				*07/25/09 21:08*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*39 %*		*Surr Limits: (20-120%)*				*07/25/09 21:08*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*75 %*		*Surr Limits: (46-120%)*				*07/25/09 21:08*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*07/25/09 21:08*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*65 %*		*Surr Limits: (24-136%)*				*07/25/09 21:08*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.0743**		0.0020	0.0003	mg/L	1.00	07/28/09 00:11	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:25	DAN	9G24079	6010B
Chromium	**0.0128**		0.0040	0.0009	mg/L	1.00	07/28/09 00:11	DAN	9G24079	6010B
Cobalt	**0.0022**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:11	DAN	9G24079	6010B
Copper	**0.0053**	J	0.0100	0.0013	mg/L	1.00	07/28/09 00:11	DAN	9G24079	6010B
Lead	**0.0043**	J	0.0050	0.0029	mg/L	1.00	07/28/09 00:11	DAN	9G24079	6010B
Zinc	**0.0118**		0.0100	0.0015	mg/L	1.00	07/28/09 00:11	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

ARCADIS U.S., Inc. - Albany, NY
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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-03 (DUP-1 - Water) - cont.						**Sampled: 07/22/09**			**Recvd: 07/23/09 14:20**	
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	**0.0450**		0.0020	0.0003	mg/L	1.00	07/27/09 23:50	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/27/09 23:50	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/27/09 23:50	LMH	9G24045	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/27/09 23:50	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/27/09 23:50	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:13	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/27/09 23:50	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:14	jmm	9G24108	9012A

8.8.09 KB

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-04 (MW-4A-93 - Water)						**Sampled: 07/22/09 14:45**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 01:04	MF	9G27087	8260B
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (66-137%)*				*07/28/09 01:04*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*91 %*		*Surr Limits: (73-120%)*				*07/28/09 01:04*	*MF*	*9G27087*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-126%)*				*07/28/09 01:04*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.93	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
4-Methylphenol	ND		9.7	0.56	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.046	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Benzoic acid	ND		150	97	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
Phenol	ND		10	0.43	ug/L	1.00	07/25/09 21:32	ERK	9G24016	8270C
2,4,6-Tribromophenol	*99 %*		*Surr Limits: (52-132%)*				*07/25/09 21:32*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*83 %*		*Surr Limits: (48-120%)*				*07/25/09 21:32*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*40 %*		*Surr Limits: (20-120%)*				*07/25/09 21:32*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*77 %*		*Surr Limits: (46-120%)*				*07/25/09 21:32*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*07/25/09 21:32*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*55 %*		*Surr Limits: (24-136%)*				*07/25/09 21:32*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.0199**		0.0020	0.0003	mg/L	1.00	07/28/09 00:16	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:30	DAN	9G24079	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 00:16	DAN	9G24079	6010B
Cobalt	**0.0016**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:16	DAN	9G24079	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:16	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 00:16	DAN	9G24079	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:16	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-04 (MW-4A-93 - Water) - cont.						**Sampled: 07/22/09 14:45**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	**0.0186**		0.0020	0.0003	mg/L	1.00	07/27/09 23:55	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/27/09 23:55	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/27/09 23:55	LMH	9G24045	6010B
Cobalt	**0.0017**	J	0.0040	0.0005	mg/L	1.00	07/27/09 23:55	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/27/09 23:55	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:30	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/27/09 23:55	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND UJ		10.0	5.0	ug/L	1.00	07/27/09 10:15	jmm	9G24108	9012A

8.8.09

ARCADIS U.S., Inc. - Albany, NY
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Albany, NY 12205

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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-05 (MW-5A-07 - Water)						**Sampled: 07/22/09 14:50**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Carbon disulfide	**0.44**	J	1.0	0.19	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 01:28	MF	9G27087	8260B
1,2-Dichloroethane-d4	*98 %*		*Surr Limits: (66-137%)*				*07/28/09 01:28*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*89 %*		*Surr Limits: (73-120%)*				*07/28/09 01:28*	*MF*	*9G27087*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-126%)*				*07/28/09 01:28*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.92	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.49	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
4-Methylphenol	ND		9.6	0.56	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Benzoic acid	ND		140	96	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
Phenol	ND		10	0.43	ug/L	1.00	07/25/09 21:57	ERK	9G24016	8270C
2,4,6-Tribromophenol	*99 %*		*Surr Limits: (52-132%)*				*07/25/09 21:57*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*86 %*		*Surr Limits: (48-120%)*				*07/25/09 21:57*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*41 %*		*Surr Limits: (20-120%)*				*07/25/09 21:57*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*82 %*		*Surr Limits: (46-120%)*				*07/25/09 21:57*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*07/25/09 21:57*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*55 %*		*Surr Limits: (24-136%)*				*07/25/09 21:57*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.128**		0.0020	0.0003	mg/L	1.00	07/28/09 00:21	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:35	DAN	9G24079	6010B
Chromium	**0.0038**	J	0.0040	0.0009	mg/L	1.00	07/28/09 00:21	DAN	9G24079	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/28/09 00:21	DAN	9G24079	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:21	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 00:21	DAN	9G24079	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:21	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-05 (MW-5A-07 - Water) - cont.						**Sampled: 07/22/09 14:50**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	0.119		0.0020	0.0003	mg/L	1.00	07/28/09 00:00	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 00:00	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 00:00	LMH	9G24045	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/28/09 00:00	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:00	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:35	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:00	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:30	jmm	9G25015	9012A

8.8.09 WB

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-06 (MW-2A-93 - Water)						**Sampled: 07/22/09 16:15**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND	D03	4.0	1.2	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
2-Butanone	ND	D03	20	5.3	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Acetone	ND	D03	20	5.4	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Benzene	ND	D03	4.0	1.6	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Bromochloromethane	ND	D03	4.0	1.5	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Carbon disulfide	ND	D03	4.0	0.78	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Chlorobenzene	ND	D03	4.0	1.3	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Chloroform	ND	D03	4.0	1.3	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Ethylbenzene	ND	D03	4.0	0.74	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Methylene Chloride	**4.5**	D03	4.0	1.8	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Toluene	ND	D03	4.0	2.0	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Trichloroethene	ND	D03	4.0	1.8	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Vinyl chloride	ND	D03	4.0	0.97	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
Xylenes, total	ND	D03	8.0	2.6	ug/L	4.00	07/28/09 01:52	MF	9G27087	8260B
1,2-Dichloroethane-d4	*98 %*	*D03*	*Surr Limits: (66-137%)*				*07/28/09 01:52*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*90 %*	*D03*	*Surr Limits: (73-120%)*				*07/28/09 01:52*	*MF*	*9G27087*	*8260B*
Toluene-d8	*104 %*	*D03*	*Surr Limits: (71-126%)*				*07/28/09 01:52*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	1.1	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.50	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.57	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
4-Methylphenol	ND		11	0.65	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.51	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.053	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Benzoic acid	ND		170	110	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.20	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	5.3	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.12	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.34	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Naphthalene	ND		10	0.13	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
Phenol	ND		10	0.50	ug/L	1.00	07/25/09 22:21	ERK	9G24016	8270C
2,4,6-Tribromophenol	*109 %*		*Surr Limits: (52-132%)*				*07/25/09 22:21*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*89 %*		*Surr Limits: (48-120%)*				*07/25/09 22:21*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*47 %*		*Surr Limits: (20-120%)*				*07/25/09 22:21*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*86 %*		*Surr Limits: (46-120%)*				*07/25/09 22:21*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*32 %*		*Surr Limits: (16-120%)*				*07/25/09 22:21*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*60 %*		*Surr Limits: (24-136%)*				*07/25/09 22:21*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.128**		0.0020	0.0003	mg/L	1.00	07/28/09 00:26	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:40	DAN	9G24079	6010B
Chromium	**0.0033**	J	0.0040	0.0009	mg/L	1.00	07/28/09 00:26	DAN	9G24079	6010B
Cobalt	**0.0010**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:26	DAN	9G24079	6010B
Copper	**0.0013**	J	0.0100	0.0013	mg/L	1.00	07/28/09 00:26	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 00:26	DAN	9G24079	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:26	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

ARCADIS U.S., Inc. - Albany, NY
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Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-06 (MW-2A-93 - Water) - cont.						**Sampled: 07/22/09 16:15**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	**0.114**		0.0020	0.0003	mg/L	1.00	07/28/09 00:05	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 00:05	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 00:05	LMH	9G24045	6010B
Cobalt	**0.0010**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:05	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:05	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:40	LMH	9G24045	6010B
Zinc	**0.0065**	J	0.0100	0.0015	mg/L	1.00	07/28/09 00:05	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND UJ		10.0	5.0	ug/L	1.00	07/27/09 10:18	jmm	9G24108	9012A

9/18/09

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
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Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-07 (MW-1A-93 - Water)						**Sampled: 07/23/09 10:19**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 02:16	MF	9G27087	8260B
1,2-Dichloroethane-d4	*99 %*		*Surr Limits: (66-137%)*				*07/28/09 02:16*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*90 %*		*Surr Limits: (73-120%)*				*07/28/09 02:16*	*MF*	*9G27087*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-126%)*				*07/28/09 02:16*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.95	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.44	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.50	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
4-Methylphenol	ND		9.9	0.57	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.45	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.047	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Benzoic acid	ND		150	99	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.18	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.7	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.30	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
Phenol	ND		10	0.44	ug/L	1.00	07/25/09 22:45	ERK	9G24016	8270C
2,4,6-Tribromophenol	*96 %*		*Surr Limits: (52-132%)*				*07/25/09 22:45*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*82 %*		*Surr Limits: (48-120%)*				*07/25/09 22:45*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*38 %*		*Surr Limits: (20-120%)*				*07/25/09 22:45*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*69 %*		*Surr Limits: (46-120%)*				*07/25/09 22:45*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*26 %*		*Surr Limits: (16-120%)*				*07/25/09 22:45*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*53 %*		*Surr Limits: (24-136%)*				*07/25/09 22:45*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.0627**		0.0020	0.0003	mg/L	1.00	07/28/09 00:31	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 16:45	DAN	9G24079	6010B
Chromium	**0.0073**		0.0040	0.0009	mg/L	1.00	07/28/09 00:31	DAN	9G24079	6010B
Cobalt	**0.0023**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:31	DAN	9G24079	6010B
Copper	**0.0061**	J	0.0100	0.0013	mg/L	1.00	07/28/09 00:31	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 00:31	DAN	9G24079	6010B
Zinc	**0.0120**		0.0100	0.0015	mg/L	1.00	07/28/09 00:31	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-07 (MW-1A-93 - Water) - cont.						**Sampled: 07/23/09 10:19**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	**0.0502**		0.0020	0.0003	mg/L	1.00	07/28/09 00:09	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 00:09	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 00:09	LMH	9G24045	6010B
Cobalt	**0.0007**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:09	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:09	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:45	LMH	9G24045	6010B
Zinc	**0.0049**	J	0.0100	0.0015	mg/L	1.00	07/28/09 00:09	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:49	jmm	9G25017	9012A

9/8/09

ARCADIS U.S., Inc. - Albany, NY
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Albany, NY 12205

Work Order: RSG0883

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-08 (MW-2B-93 - Water)						**Sampled: 07/23/09 10:25**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 02:39	MF	9G27087	8260B
1,2-Dichloroethane-d4	*98 %*		*Surr Limits: (66-137%)*				*07/28/09 02:39*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*91 %*		*Surr Limits: (73-120%)*				*07/28/09 02:39*	*MF*	*9G27087*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-126%)*				*07/28/09 02:39*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.92	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.49	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
4-Methylphenol	ND		9.6	0.56	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Benzoic acid	ND		140	96	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
Phenol	ND		10	0.43	ug/L	1.00	07/25/09 23:10	ERK	9G24016	8270C
2,4,6-Tribromophenol	*96 %*		*Surr Limits: (52-132%)*				*07/25/09 23:10*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*85 %*		*Surr Limits: (48-120%)*				*07/25/09 23:10*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*42 %*		*Surr Limits: (20-120%)*				*07/25/09 23:10*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*81 %*		*Surr Limits: (46-120%)*				*07/25/09 23:10*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*07/25/09 23:10*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*58 %*		*Surr Limits: (24-136%)*				*07/25/09 23:10*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.0298**		0.0020	0.0003	mg/L	1.00	07/28/09 00:36	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 18:18	DAN	9G24079	6010B
Chromium	**0.0010**	J	0.0040	0.0009	mg/L	1.00	07/28/09 00:36	DAN	9G24079	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/28/09 00:36	DAN	9G24079	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:36	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 00:36	DAN	9G24079	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:36	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
Project Number: AGM

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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-08 (MW-2B-93 - Water) - cont.						**Sampled: 07/23/09 10:25**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	**0.0266**		0.0020	0.0003	mg/L	1.00	07/28/09 00:14	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 00:14	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 00:14	LMH	9G24045	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/28/09 00:14	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:14	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 12:50	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:14	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:18	jmm	9G25017	9012A

9/8/09 KB

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-11 (MW-1B-93 - Water)						**Sampled: 07/23/09 11:59**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 03:51	MF	9G27087	8260B
1,2-Dichloroethane-d4	*97 %*		*Surr Limits: (66-137%)*				*07/28/09 03:51*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*90 %*		*Surr Limits: (73-120%)*				*07/28/09 03:51*	*MF*	*9G27087*	*8260B*
Toluene-d8	*103 %*		*Surr Limits: (71-126%)*				*07/28/09 03:51*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.92	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.43	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.49	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
4-Methylphenol	ND		9.6	0.56	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.44	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Benzoic acid	ND		140	96	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.6	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.11	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.29	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
Phenol	ND		10	0.43	ug/L	1.00	07/25/09 23:34	ERK	9G24016	8270C
2,4,6-Tribromophenol	*98 %*		*Surr Limits: (52-132%)*				*07/25/09 23:34*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*81 %*		*Surr Limits: (48-120%)*				*07/25/09 23:34*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*37 %*		*Surr Limits: (20-120%)*				*07/25/09 23:34*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*73 %*		*Surr Limits: (46-120%)*				*07/25/09 23:34*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*26 %*		*Surr Limits: (16-120%)*				*07/25/09 23:34*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*71 %*		*Surr Limits: (24-136%)*				*07/25/09 23:34*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	**0.0547**		0.0020	0.0003	mg/L	1.00	07/28/09 01:15	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 18:43	DAN	9G24079	6010B
Chromium	**0.0120**		0.0040	0.0009	mg/L	1.00	07/28/09 01:15	DAN	9G24079	6010B
Cobalt	**0.0015**	J	0.0040	0.0005	mg/L	1.00	07/28/09 01:15	DAN	9G24079	6010B
Copper	**0.0043**	J	0.0100	0.0013	mg/L	1.00	07/28/09 01:15	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 01:15	DAN	9G24079	6010B
Zinc	**0.0049**	J	0.0100	0.0015	mg/L	1.00	07/28/09 01:15	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

ARCADIS U.S., Inc. - Albany, NY
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Work Order: RSG0883

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Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-11 (MW-1B-93 - Water) - cont.						**Sampled: 07/23/09 11:59**		**Recvd: 07/23/09 14:20**		
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	0.0450		0.0020	0.0003	mg/L	1.00	07/28/09 00:52	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 00:52	LMH	9G24045	6010B
Chromium	0.0036	J	0.0040	0.0009	mg/L	1.00	07/28/09 00:52	LMH	9G24045	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/28/09 00:52	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:52	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 13:15	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:52	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:52	jmm	9G25017	9012A

9/8/09 (DB)

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-12 (FB-1 - Water)						**Sampled: 07/23/09 13:00**		**Recvd: 07/23/09 14:20**		
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
2-Butanone	3.0	J	5.0	1.3	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Acetone	16		5.0	1.3	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Toluene	0.85	J	1.0	0.51	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 04:15	MF	9G27087	8260B
1,2-Dichloroethane-d4	*99 %*		*Surr Limits: (66-137%)*				*07/28/09 04:15*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*91 %*		*Surr Limits: (73-120%)*				*07/28/09 04:15*	*MF*	*9G27087*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-126%)*				*07/28/09 04:15*	*MF*	*9G27087*	*8260B*
Semivolatile Organics by GC/MS										
2,4-Dimethylphenol	ND		10	0.91	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
2,4-Dinitrotoluene	ND		10	0.42	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
2,6-Dinitrotoluene	ND		10	0.48	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
4-Methylphenol	ND		9.5	0.55	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
4-Nitroaniline	ND		50	0.43	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Acenaphthylene	ND		10	0.045	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Benzoic acid	ND		140	95	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Bis(2-chloroethyl)ether	ND		10	0.17	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Bis(2-ethylhexyl) phthalate	ND		10	4.5	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Diethyl phthalate	ND		10	0.10	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Di-n-butyl phthalate	ND		10	0.28	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Naphthalene	ND		10	0.11	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
Phenol	ND		10	0.42	ug/L	1.00	07/25/09 23:58	ERK	9G24016	8270C
2,4,6-Tribromophenol	*97 %*		*Surr Limits: (52-132%)*				*07/25/09 23:58*	*ERK*	*9G24016*	*8270C*
2-Fluorobiphenyl	*89 %*		*Surr Limits: (48-120%)*				*07/25/09 23:58*	*ERK*	*9G24016*	*8270C*
2-Fluorophenol	*42 %*		*Surr Limits: (20-120%)*				*07/25/09 23:58*	*ERK*	*9G24016*	*8270C*
Nitrobenzene-d5	*83 %*		*Surr Limits: (46-120%)*				*07/25/09 23:58*	*ERK*	*9G24016*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*07/25/09 23:58*	*ERK*	*9G24016*	*8270C*
p-Terphenyl-d14	*79 %*		*Surr Limits: (24-136%)*				*07/25/09 23:58*	*ERK*	*9G24016*	*8270C*
Total Metals by SW 846 Series Methods										
Barium	ND		0.0020	0.0003	mg/L	1.00	07/28/09 01:20	DAN	9G24079	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 18:48	DAN	9G24079	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 01:20	DAN	9G24079	6010B
Cobalt	ND		0.0040	0.0005	mg/L	1.00	07/28/09 01:20	DAN	9G24079	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 01:20	DAN	9G24079	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 01:20	DAN	9G24079	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 01:20	DAN	9G24079	6010B
Dissolved Metals by SW 846 Series Methods										

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

Work Order: RSG0883

Project: Newstead Post-Removal Groundwater
Project Number: AGM

Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-12 (FB-1 - Water) - cont.							**Sampled: 07/23/09 13:00**		**Recvd: 07/23/09 14:20**	
Dissolved Metals by SW 846 Series Methods - cont.										
Barium	ND		0.0020	0.0003	mg/L	1.00	07/28/09 00:57	LMH	9G24045	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	07/28/09 00:57	LMH	9G24045	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	07/28/09 00:57	LMH	9G24045	6010B
Cobalt	**0.0005**	J	0.0040	0.0005	mg/L	1.00	07/28/09 00:57	LMH	9G24045	6010B
Copper	ND		0.0100	0.0013	mg/L	1.00	07/28/09 00:57	LMH	9G24045	6010B
Lead	ND		0.0050	0.0029	mg/L	1.00	07/28/09 13:32	LMH	9G24045	6010B
Zinc	ND		0.0100	0.0015	mg/L	1.00	07/28/09 00:57	LMH	9G24045	6010B
General Chemistry Parameters										
Cyanide	ND	UJ	10.0	5.0	ug/L	1.00	07/27/09 10:53	jmm	9G25017	9012A

9/8/09 UB

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

Work Order: RSG0883

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Received: 07/23/09
Reported: 08/12/09 17:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSG0883-13 (TRIP BLANK - Water)						**Sampled: 07/23/09**			**Recvd: 07/23/09 14:20**	
Volatile Organic Compounds by EPA 8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Acetone	ND		5.0	1.3	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Bromochloromethane	ND		1.0	0.39	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Ethylbenzene	ND		1.0	0.18	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	07/28/09 04:38	MF	9G27087	8260B
1,2-Dichloroethane-d4	*99 %*		*Surr Limits: (66-137%)*				*07/28/09 04:38*	*MF*	*9G27087*	*8260B*
4-Bromofluorobenzene	*90 %*		*Surr Limits: (73-120%)*				*07/28/09 04:38*	*MF*	*9G27087*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-126%)*				*07/28/09 04:38*	*MF*	*9G27087*	*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: 7/23/09	Chain of Custody Number: 160586
Address: 4465 New Karner Rd	Telephone Number (Area Code)/Fax Number: (518)452 7826 / 452 7086	Lab Number:	Page 1 of 1
City: ALBANY State: NY Zip Code: 12205	Site Contact: K. Bidwell	Lab Contact: C. FOX	
Project Name and Location (State): Shearon Williams - Newstead NY	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: A4MO386.0001			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sludge	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: SP MET ERM 6010	ERM Diss 6010	SP WMS 8260C	TCL BN 8270	TCN 9012	Special Instructions/ Conditions of Receipt
MW 3A-93	7/22/09	1146		✓			2		2	2	1	*	1	1	2	2	1	Questions?
MW 3B-93	1	1220		✓			2		2	2	1	*	1	1	2	2	1	Please call
DUP-1	|	—		✓			2		2	2	1	*	1	1	2	2	1	Marc Sanford
MW-4A-93	|	1445		✓			2		2	2	1	*	1	1	2	2	1	@ 518 452 7826
MW 5A-07	↓	1450		✓			2		2	2	1	*	1	1	2	2	1	ext 15
MW 2A-93	7/22/09	1615		✓			2		2	2	1	*	1	1	2	2	1	marc.sanford@arcadis-
MW 1A-93	7/23/09	1019		✓			2		2	2	1	*	1	1	2	2	1	us.com
MW 2B-93	7/23/09	1025		✓			2		2	2	1	*	1	1	2	2	1	
MW 2B-93 MS/MSD	|	1025		✓			2		2	2	1	*	2	2	4	4	2	* FB-1 sp metals
MW 1B-93	↓	1159		✓			2		2	2	1	*	1	1	2	2	1	diss - was not
FB-1	7/23/09	1300		✓			2		2	2	1	*	1	1	2	2	1	filtered prior was
Trip Blank	—	—		✓						4					4			Rinsed out

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)

1. Relinquished By: Katie Bidwell	Date: 7/23/09	Time: 1420	1. Received By:	Date: 7/23/09	Time: 1420
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: 4@2.0°C

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

43/1257