

Data Quality Evaluation for 2012 Groundwater Monitoring Results, Former Hampshire Chemical Corp. Facility, Waterloo, New York

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Introduction

The objective of this data quality evaluation (DQE) report is to assess the data quality of analytical results for groundwater samples collected from the former Hampshire Chemical Corp. (HCC) facility in Waterloo, New York (facility). CH2M HILL collected samples April 24 through May 9, 2012. Guidance for this DQE report came from the *Quality Assurance Project Plan, RCRA Facility Investigation, Former Hampshire Chemical Corporation Facility, Waterloo, New York* (Waterloo QAPP, June 2010); *U.S. Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines (NFG) for Organic Data Review, October 1999*; the *USEPA Contract Laboratory NFG for Inorganic Data Review, October 2004*; individual method requirements; and, historical laboratory quality control limits.

This report is intended as a general data quality assessment designed to summarize data issues.

Analytical Data

This DQE report covers 45 water samples, 5 field duplicates (FD), 4 equipment blanks (EB) and 12 trip blanks (TB). The samples were reported in 12 sample delivery groups identified in Table 1.

TABLE 1	
Sample Delivery Groups Groundwater Monitoring Results Report for April and October 2012 Monitoring Events <i>Former Hampshire Chemical Corp. Facility, Waterloo, New York</i>	
L12040844	L12050099
L12040898	L12050153
L12040928	L12050171
L12040963	L12050226
L12050011	L12050284
L12050050	L12050317

Samples were collected and delivered to Microbac Laboratory (MBLM), which is an ELAP-approved laboratory in New York State under Laboratory Identification No. 10861, in Marietta, Ohio. The samples were analyzed by one or more of the methods listed in Table 2.

TABLE 2		
Analytical Parameters Groundwater Monitoring Results Report for April and October 2012 Monitoring Events <i>Former Hampshire Chemical Corp. Facility, Waterloo, New York</i>		
Parameter	Method	Laboratory
Volatile Organic Compounds (VOC)	SW8260B	MBLM
Semivolatile Organic Compounds (SVOC/SVOC SIM)	SW8270C/SW8270SIM/	MBLM
Polyaromatic Hydrocarbons (PAH)	SW8270 PAHL	MBLM
TAL Metals (total/dissolved)	SW6010B/SW6020/SW7470A	MBLM
Sulfate	E375.4	MBLM
Alkalinity	E310.2	MBLM
Nitrate	E353.2	MBLM
Phosphorus	E365.4	MBLM
Total Organic Carbon (TOC)	E415.1	MBLM
Methane and carbon dioxide	RSK-175	MBLM

The sample delivery groups were assessed by reviewing the following: (1) the chain-of- custody documentation; (2) holding-time compliance; (3) initial and continuing calibration criteria; (4) method blanks and field blanks; (5) laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries; (6) matrix spike/matrix spike duplicate (MS/MSD) recoveries; (7) surrogate spike recoveries; (8) internal standard recoveries; (9) FD precision; and (10) the required quality control (QC) samples at the specified frequencies.

Data flags were assigned according to the Waterloo QAPP. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will only be one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

The data flags are those listed in the Waterloo QAPP and are defined below:

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R = The sample result was rejected due to serious deficiencies in the ability to analyze the sample and meet the QC criteria. The presence or absence of the analyte could not be verified.
- U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Findings

The overall summaries of the data validation are contained in the following sections. Qualified data are presented in Table 3.

Holding Time and Preservation

The pH for four samples exceeded the VOC criteria of pH<2, therefore, the samples are considered unpreserved. The samples were analyzed 1-2 days past the hold time for unpreserved samples, resulting in the data being qualified as estimated detected and non-detected results and flagged “J” and “UJ” respectively, in the samples.

Sample MW-21-042512 was received with a pH that exceeded criteria of pH<2 for nitrate. Additional preservative was added by the laboratory; however, the pH still exceeded criteria, indicating possible matrix interference. The result was qualified as an estimated non-detect and flagged “UJ” in the sample.

Calibration

Initial and continuing calibration analyses were performed as required by the methods. All acceptance criteria were met with the following exceptions:

- The percent differences (%D) for chloromethane and dichlorodifluoromethane were greater than method criteria in several VOC initial calibration verification standards (ICVS), indicating a possible high bias. In addition, the %Ds for several analytes were greater than method criteria in several VOC continuing calibration verification standards (CCV). The data were not qualified because the associated samples did not contain reportable levels of these analytes.
- The %Ds for several analytes were less than method criteria in a few VOC CCVs, indicating a possible low bias. The data were qualified as estimated non-detected results and flagged “UJ” in the associated samples.
- The %Ds for 2-chloronaphthalene, pentachlorophenol and 2,4-dichlorophenol were greater than method criteria in several ICVSs associated with the SVOC analysis, indicating a possible high bias. The data were not qualified because the associated samples did not contain reportable levels of these analytes. In addition, the %Ds for 3,3'-dichlorobenzidine and 3-nitroaniline were greater than method criteria in a few SVOC CCVs. Detected results were qualified as estimated and flagged “J” in the associated samples. Non-detected results were not qualified.
- The %Ds for benzoic acid and/or 2,4-dinitrophenol were less than the method criteria in several SVOC CCVs, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged “J” and “UJ”, respectively, in the associated samples.
- The %Ds for nitrate and phosphorous were less than method criteria in a few CCVs, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged “J” and “UJ”, respectively, in the associated samples.
- The %Ds for alkalinity, nitrate, phosphorous and sulfate were greater than method criteria in a few CCVs, indicating a possible high bias. Detected results were qualified as estimated and flagged “J” in the associated samples. Non-detected results were not qualified.

- The %D for phosphorus was less than method criteria in one ICVS, indicating a possible low bias. The data were qualified as estimated non-detects and flagged “UJ” in the associated samples.
- Total and/or dissolved cadmium and/or iron were detected at concentrations less than the reporting limit (RL) in a few continuing calibration blanks (CCB) associated with the metals analysis. The data were qualified as not detected at the concentration measured and flagged “U” when the associated sample concentrations were less than the blank concentrations.

Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination with the following exceptions:

- Total and dissolved thallium was detected at a concentration less than the RL in one method blank associated with the metals analysis. The data were not qualified because the associated samples did not contain reportable levels of these analytes.
- Methane was detected at a concentration less than the RL in one method blank associated with the dissolved gas analysis. The data were qualified as not detected at the concentration measured and flagged “U” when the sample concentration was less than the concentration detected in the blank.

Field Blanks

EBs and TBs were collected, analyzed and were free of contamination with the following exceptions:

- Acetone, carbon disulfide and methylene chloride were detected at concentrations less than/and or greater than the RL in a few EBs/TBs associated with the VOC analysis. The data were not qualified because the samples did not contain reportable levels of these analytes.
- Total cadmium and/or total/dissolved zinc were detected at concentrations less than the RL in one EB associated with the metals analysis. The data were qualified as not detected at the concentration measured and flagged “U” when the associated sample concentrations were less than the concentration detected in the blank.

Laboratory Control Samples

LCS/LCSDs were analyzed as required and met all accuracy and precision criteria with the following exceptions:

- Methyl acetate and trans-1,3-dichloropropene were recovered less than the lower control limits in a few LCS/LCSDs associated with the VOC analysis, indicating a possible low bias. The data were qualified as estimated non-detected results and flagged “UJ” in the associated samples.
- A few analytes were recovered greater than the upper control limits in a few LCS/LCSDs associated with the VOC analysis, indicating a possible high bias. The data were not qualified because the samples did not contain reportable levels of these analytes.
- Hexachlorocyclopentadiene was recovered less than the lower control limit in one LCS associated with the SVOC analysis, indicating a possible low bias. The data were qualified as estimated non-detected results and flagged “UJ” in the associated samples. In addition, benzoic acid was not recovered in a few LCSs, indicating a significant low bias. The non-detected results were rejected for project use and flagged “R” in the associated samples.

- Several analytes were recovered greater than the upper control limits in a few LCS/LCSDs associated with the SVOC analysis, indicating a possible high bias. Detected results were qualified as estimated and flagged “J” in the associated samples. Non-detected results were not qualified.
- The relative percent differences (RPD) for 1,4-dioxane and benzoic acid were greater than criteria in one LCS/LCSD associated with the SVOC analysis. The data were not qualified because the associated samples did not contain reportable levels of these analytes.

Matrix Spike

MS/MSDs were analyzed as required and all accuracy and precision criteria were met with the following exceptions:

- Methyl acetate was recovered less than the lower control limit in several VOC MS/MSDs, indicating a possible low bias. The data were qualified as estimated non-detected results and flagged “UJ” in the respective parent samples.
- Dichlorodifluoromethane and/or vinyl chloride were recovered greater than the upper control limit in a few VOC MS/MSDs, indicating a possible high bias. The aforementioned analytes were not qualified because the respective parent samples did not contain reportable concentrations of these analytes.
- The recovery of 1,4-dioxane was less than the lower control limit in the SVOC MS/MSD for sample MW-27-042612, indicating a possible low bias. The result was qualified as an estimated non-detect and flagged “UJ” in the parent sample. In addition, benzoic acid and/or hexachlorocyclopentadiene were not recovered in the MS/MSDs for MW-27-042612, MW-08-050212 and MW-12-050412, indicating a possible significant low bias. The non-detected results were rejected for project use and flagged “R” in the respective parent samples.
- Several analytes were recovered greater the upper control limits in the SVOC MS/MSDs, indicating a possible high bias. The data were not qualified because the associated samples did not contain reportable levels of these analytes.
- Naphthalene and 2-methynaphthalene were recovered greater than the upper control limits in the PAH MS/MSD for sample MW-08-050212, indicating a possible high bias. The data were not qualified because the parent sample did not contain reportable levels of these analytes.
- Several dissolved and/or total metals were recovered less than the lower control limits in the MS/MSDs, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged “J” and “UJ”, respectively, in the associated parent samples. In addition, several dissolved and/or total metals were recovered greater than the upper control limits in the MS/MSDs, indicating a possible high bias. Detected results were qualified as estimated and flagged “J” in the respective parent samples. Non-detected results were not qualified.
- Alkalinity, nitrate, phosphorous, sulfate and TOC were recovered less than the lower control limits in several of the MS/MSDs, indicating a possible low bias. The data were qualified as estimate detected and non-detected results and flagged “J” and “UJ”, respectively, in the parent samples. In addition, methane, nitrate and TOC were recovered greater than the upper control limits in the MS/MSD for sample MW-27-042612, indicating a possible high bias. Detected

results were qualified as estimated and flagged “J” in the parent sample. Non-detected results were not qualified.

- The RPD exceeded criteria for multiple analytes in several SVOC, PAH, phosphorous and TOC MS/MSDs. Detected results were qualified as estimated and flagged “J” in the respective parent sample. Non-detected results were not qualified.

Post Digestion Spikes

Post digestion spikes were analyzed as required and all accuracy criteria were met with the following exceptions:

- Magnesium was recovered less than the lower control limit in the post digestion spike for sample MW-12-050412. The result was qualified as estimated and flagged “J” in the sample.
- Dissolved arsenic was recovered greater than the upper control limit in the post digestion spike for sample MW-03-050712. The result was qualified as estimated and flagged “J” in the sample.

Serial Dilutions

Serial dilutions were analyzed according to methods requiring their use and all acceptance criteria were met with the following exceptions:

- The RPD exceeded criteria for calcium and sodium in the serial dilution for sample MW-12-050412. The data were qualified as estimated and flagged “J” in the sample.
- The RPD exceeded criteria for sodium in the serial dilution for sample MW-03-050712. The result was qualified as estimated and flagged “J” in the sample.

Internal Standards

All acceptance criteria were met with the following exceptions:

- One internal standard associated with the SVOC analysis was recovered less than the lower control limit in samples MW-03-050712 and BBLD-PIT-SSP-050812, indicating a possible low bias. The associated data were qualified as an estimated detected and non-detected results and flagged “J” and “UJ”, respectively, in the samples.
- One internal standard associated with the PAH analysis was recovered less than the lower control limit in sample MW-09R-050212, indicating a possible low bias. The associated data were qualified as estimated non-detected results and flagged “UJ” in the sample. In addition, one internal standard was recovered greater than the upper control limit in sample MW-03-050712, indicating a possible high bias. The associated data were not qualified because the sample did not contain reportable levels of the analytes.

Surrogates

Surrogates were added to all samples for the methods requiring their use and all acceptance criteria were met with the following exceptions:

- One or more surrogates were recovered greater than the upper control limits in the VOC analysis of samples MW-25-050212 and PZ-03-050212, indicating a possible high bias. Detected results were qualified as estimated and flagged “J” in the samples. Non-detected results were not qualified.

- Two surrogates associated with the acid fraction of the SVOC analysis were recovered greater than the upper control limits in several samples, indicating a possible high bias. Detected results were qualified as estimated and flagged “J” in the samples. Non-detected results were not qualified.
- One surrogate was recovered less than the lower control limit in the PAH analysis of several samples, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged “J” and “UJ”, respectively, in the associated samples. In addition, one surrogate was recovered greater than the upper control limit in the PAH analysis of sample MW-09R-050212, indicating a possible high bias. . Detected results were qualified as estimated and flagged “J” in the samples. Non-detected results were not qualified.

Field Duplicates

FDs were collected and analyzed at the required frequency and in several cases, precision acceptance criteria were not met in the dissolved gas, nitrate and metals analyses. The data were qualified as estimated detected results and flagged “J” in the respective field duplicate pairs.

Interference Check Standards

Interference check standards were analyzed as required and all accuracy criteria were met.

Tentatively Identified Compounds

Tentatively identified compounds were reported in the VOC and SVOC analyses to determine the presence/absence of the following analytes in the samples: epichlorohydrin, thioglycolic acid, dithiodiglycolic acid, mercaptopropionic acid, thiodipropionic acid, and dithiodipropionic acid. The library search did not identify these analytes in the samples.

Chain of Custody

Required procedures were followed and were free of errors.

Overall Assessment

The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected and the resulting analytical data can be used to support the decision making process. The following summary highlights the PARCC findings for the above-defined events:

- Precision of the data was verified through the review of the field and laboratory data quality indicators that include FD, LCS/LCSD, MS/MSD, and serial dilution RPDs. Precision was generally acceptable with the exception of a few analytes which were qualified as estimated detected results due to FD, MS/MSD and/or serial dilution RPD issues. Data users should consider the impact to any result that is qualified as estimated as it may contain a bias which could affect the decision making process.
- Accuracy of the data was verified through the review of the calibration data, LCS/LCSD, MS/MSD, post digestion spike, interference check standard, internal standard and surrogate recoveries, as well as the evaluation of method/field/calibration blank data. Accuracy was generally acceptable with a few compounds being qualified as estimated detected and non-detected results due to calibration, LCS/LCSD, MS/MSD, internal standard, and/or surrogate issues. In addition, a few analytes associated with the SVOC analysis were rejected for project use in several samples due to low recoveries in the LCS/LCSDs and/or MS/MSDs. A few analytes

were qualified as not detected due to method, field and/or calibration blank contamination in a few samples.

- Representativeness of the data was verified through the sample's collection, storage and preservation procedures and the verification of holding-time compliance. The nitrate sample container was received above the required pH criteria for sample MW-21-042512 resulting in the data being qualified as estimated. Several VOC samples were analyzed 1-2 days outside the hold time for unpreserved samples, resulting in the data being qualified as estimated. All other data were reported from analyses within the USEPA-recommended holding time.
- Comparability of the data was ensured through the use of standard USEPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.
- Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as all data that are not rejected for project use. All data were considered valid with the exception benzoic acid and hexachlorocyclopentadiene which were rejected for project use in several SVOC samples. The completeness goal of 95 percent was met for all analyte/method combinations except benzoic acid which was 50 percent complete.

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
BBLD-PIT-SSP-050812	E353.2	Nitrate	mg/L	2.5	UJ	CCV<LCL
BBLD-PIT-SSP-050812	SW8260B	Bromomethane	ug/l	1	UJ	CCV<LCL
BBLD-PIT-SSP-050812	SW8260B	Methyl Acetate	ug/l	2	UJ	LCS<LCL
BBLD-PIT-SSP-050812	SW8270C	1,4-Dioxane	ug/l	10	UJ	IS<LCL
BBLD-PIT-SSP-050812	SW8270C	2-Chlorophenol	ug/l	5	UJ	IS<LCL
BBLD-PIT-SSP-050812	SW8270C	2-Methylphenol	ug/l	5	UJ	IS<LCL
BBLD-PIT-SSP-050812	SW8270C	4-Methylphenol	ug/l	174	J	Sur>UCL, IS<LCL
BBLD-PIT-SSP-050812	SW8270C	Benzoic Acid	ug/l	114	J	Sur>UCL
BBLD-PIT-SSP-050812	SW8270C	Benzyl Alcohol	ug/l	5	UJ	IS<LCL
BBLD-PIT-SSP-050812	SW8270C	Bis (2-chloroethyl) ether	ug/l	5	UJ	IS<LCL
BBLD-PIT-SSP-050812	SW8270C	Hexachlorocyclopentadiene	ug/l	5	UJ	LCS<LCL
BBLD-PIT-SSP-050812	SW8270C	Hexachloroethane	ug/l	5	UJ	IS<LCL
BBLD-PIT-SSP-050812	SW8270C	Phenol	ug/l	5	UJ	IS<LCL
DUP-GW-042512	E365.4	Phosphorus	mg/L	0.362	J	CCV<LCL
DUP-GW-042512	RSK175	Methane	ug/l	220	J	FD>RPD
DUP-GW-042512	SW6020	Arsenic, Dissolved	mg/L	0.00667	J	FD>RPD
DUP-GW-042512	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
DUP-GW-042512	SW8260B	Dichlorodifluoromethane	ug/l	0.25	UJ	CCV<LCL
DUP-GW-042512	SW8270C	Benzoic Acid	ug/l	10	UJ	CCV<LCL
DUP-GW-043012	E310.2	Alkalinity	mg/L	361	J	CCV>UCL
DUP-GW-043012	E353.2	Nitrate	mg/L	0.037	J	FD>RPD
DUP-GW-043012	SW6010B	Zinc	mg/L	0.0199	U	EB<RL
DUP-GW-043012	SW6020	Selenium	mg/L	0.00411	J	FD>RPD
DUP-GW-043012	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	LCS<LCL
DUP-GW-043012	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL
DUP-GW-050212	SW8260B	2-Butanone	ug/l	2.5	UJ	CCV<LCL
DUP-GW-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL
DUP-GW-050212	SW8270C	Benzoic Acid	ug/l	11.2	R	LCS<LCL, CCV<LCL (UJ)

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
Dup-GW-050712	SW8260B	Bromomethane	ug/l	2.5	UJ	CCV<LCL
Dup-GW-050712	SW8270C	Benzoic Acid	ug/l	22	UJ	CCV<LCL
DUP-GW-050812	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
DUP-GW-050812	SW8270C	Hexachlorocyclopentadiene	ug/l	2.55	UJ	LCS<LCL
MW-01-050112	E353.2	Nitrate	mg/L	0.107	J	MS<LCL
MW-01-050112	E375.4	Sulfate	mg/L	72.6	J	MS<LCL
MW-01-050112	SW6010B	Cadmium	mg/L	0.00042	U	CCB<RL
MW-01-050112	SW6010B	Cadmium, Dissolved	mg/L	0.000282	U	CCB<RL
MW-01-050112	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	LCS<LCL
MW-01-050112	SW8270C	Benzoic Acid	ug/l	11.9	R	LCS<LCL, CCV<LCL (UJ)
MW-02-050712	SW8260B	Bromomethane	ug/l	2.5	UJ	CCV<LCL
MW-02-050712	SW8270C	Benzoic Acid	ug/l	21.7	UJ	CCV<LCL
MW-03-050712	SW6010B	Sodium	mg/L	410	J	SDIL
MW-03-050712	SW6020	Arsenic, Dissolved	mg/L	0.537	J	PS>UCL
MW-03-050712	SW8270C	1,4-Dioxane	ug/l	55.6	UJ	IS<LCL
MW-03-050712	SW8270C	2-Chlorophenol	ug/l	27.8	UJ	IS<LCL
MW-03-050712	SW8270C	2-Methylphenol	ug/l	27.8	UJ	IS<LCL
MW-03-050712	SW8270C	3,3'-Dichlorobenzidine	ug/l	47.4	J	CCV>UCL, LCS>UCL
MW-03-050712	SW8270C	4-Methylphenol	ug/l	27.8	UJ	IS<LCL
MW-03-050712	SW8270C	Benzoic Acid	ug/l	1230	J	CCV<LCL
MW-03-050712	SW8270C	Benzyl Alcohol	ug/l	27.8	UJ	IS<LCL
MW-03-050712	SW8270C	Bis (2-chloroethyl) ether	ug/l	27.8	UJ	IS<LCL
MW-03-050712	SW8270C	Hexachloroethane	ug/l	27.8	UJ	IS<LCL
MW-03-050712	SW8270C	Phenol	ug/l	27.8	UJ	IS<LCL
MW-05I-050112	SW6010B	Sodium	mg/L	58.5	J	MS>UCL, SD>UCL
MW-05I-050112	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	LCS<LCL
MW-05I-050112	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL, CCV<LCL (UJ)
MW-05S-050112	SW6010B	Cadmium	mg/L	0.000381	U	CCB<RL

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Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-05S-050112	SW6010B	Cadmium, Dissolved	mg/L	0.000267	U	CCB<RL
MW-05S-050112	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	LCS<LCL
MW-05S-050112	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL, CCV<LCL (UJ)
MW-06-050712	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-06-050712	SW8270C	Benzoic Acid	ug/l	11	UJ	CCV<LCL
MW-07-042412	SW8270C	Benzoic Acid	ug/l	10.2	UJ	CCV<LCL
MW-08-050212	E353.2	Nitrate	mg/L	0.64	J	CCV<LCL
MW-08-050212	RSK175	Methane	ug/l	1	U	LB<RL
MW-08-050212	SW7470A	Mercury, Dissolved	mg/L	0.0001	UJ	SD<LCL
MW-08-050212	SW8260B	Chloromethane	ug/l	0.5	UJ	CCV<LCL
MW-08-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	MS<LCL, SD<LCL, LCS<LCL
MW-08-050212	SW8270C	Benzoic Acid	ug/l	10.2	R	LCS<LCL, MS<LCL, SD<LCL, CCV<LCL (UJ)
MW-09R-050212	E353.2	Nitrate	mg/L	1.25	UJ	CCV<LCL
MW-09R-050212	SW8260B	1,2,3-Trichlorobenzene	ug/l	0.5	UJ	CCV<LCL
MW-09R-050212	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	UJ	CCV<LCL
MW-09R-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-09R-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL, LCSD<LCL
MW-09R-050212	SW8270C	Benzoic Acid	ug/l	11.5	R	LCS<LCL, CCV<LCL (UJ)
MW-09R-050212	SW8270-PAHL	2-Methylnaphthalene	ug/l	0.0294	UJ	IS<LCL
MW-09R-050212	SW8270-PAHL	Fluoranthene	ug/l	0.0405	J	Sur>UCL
MW-09R-050212	SW8270-PAHL	Naphthalene	ug/l	0.0294	UJ	IS<LCL
MW-09R-050212	SW8270-PAHL	Pyrene	ug/l	0.0394	J	Sur>UCL
MW-10-042612	E365.4	Phosphorus	mg/L	0.1	UJ	CCV<LCL
MW-10-042612	SW8270C	2,4-Dinitrophenol	ug/l	12.5	UJ	CCV<LCL
MW-10-042612	SW8270C	Benzoic Acid	ug/l	10	UJ	CCV<LCL
MW-11I-050212	E353.2	Nitrate	mg/L	0.25	UJ	CCV<LCL
MW-11I-050212	SW8260B	Chloromethane	ug/l	0.5	UJ	CCV<LCL

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Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-11I-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	LCS<LCL
MW-11I-050212	SW8270C	Benzoic Acid	ug/l	11.1	R	LCS<LCL, CCV<LCL (UJ)
MW-11S-050212	E353.2	Nitrate	mg/L	0.25	UJ	CCV<LCL
MW-11S-050212	SW8260B	Chloromethane	ug/l	0.5	UJ	CCV<LCL
MW-11S-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	LCS<LCL
MW-11S-050212	SW8270C	Benzoic Acid	ug/l	11.8	R	LCS<LCL, CCV<LCL (UJ)
MW-12-050412	E310.2	Alkalinity	mg/L	290	J	MS<LCL, SD<LCL
MW-12-050412	E353.2	Nitrate	mg/L	1.58	J	CCV>UCL
MW-12-050412	SW6010B	Calcium	mg/L	131	J	SDIL
MW-12-050412	SW6010B	Magnesium	mg/L	21	J	MS<LCL, SD<LCL, PS<LCL
MW-12-050412	SW6010B	Magnesium, Dissolved	mg/L	19.3	J	MS<LCL
MW-12-050412	SW6010B	Sodium	mg/L	118	J	SDIL
MW-12-050412	SW8260B	Methyl Acetate	ug/l	1	UJ	MS<LCL, SD<LCL
MW-12-050412	SW8270C	Benzoic Acid	ug/l	11.1	R	LCS<LCL, CCV<LCL (UJ)
MW-12-050412	SW8270C	Hexachlorocyclopentadiene	ug/l	2.78	R	MS<LCL, SD<LCL
MW-13-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-13-050212	SW8270C	Benzoic Acid	ug/l	10.2	R	LCS<LCL, CCV<LCL (UJ)
MW-15-050312	E353.2	Nitrate	mg/L	0.671	J	CCV>UCL
MW-15-050312	E375.4	Sulfate	mg/L	53.8	J	CCV>UCL
MW-15-050312	SW6010B	Iron	mg/L	0.077	U	CCB<RL
MW-15-050312	SW8260B	2-Butanone	ug/l	2.5	UJ	CCV<LCL
MW-15-050312	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL
MW-15-050312	SW8270C	Benzoic Acid	ug/l	11.1	R	LCS<LCL, CCV<LCL (UJ)
MW-16I-042412	SW6010B	Sodium	mg/L	67	J	SD>UCL
MW-16I-042412	SW8270C	Benzoic Acid	ug/l	11.2	UJ	CCV<LCL
MW-16S-042412	SW8270C	Benzoic Acid	ug/l	10.6	UJ	CCV<LCL
MW-16S-042412	SW8270-PAHL	2-Methylnaphthalene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Acenaphthene	ug/l	0.0301	J	Sur<LCL

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-16S-042412	SW8270-PAHL	Acenaphthylene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Anthracene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Benzo(a)anthracene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Benzo(a)pyrene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Benzo(b)fluoranthene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Benzo(g,h,i)perylene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Benzo(k)fluoranthene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Chrysene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Dibenzo (a,h) anthracene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Fluoranthene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Fluorene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Indeno (1,2,3-c,d) pyrene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Naphthalene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Phenanthrene	ug/l	0.025	UJ	Sur<LCL
MW-16S-042412	SW8270-PAHL	Pyrene	ug/l	0.025	UJ	Sur<LCL
MW-17-050312	E353.2	Nitrate	mg/L	0.208	J	CCV>UCL
MW-17-050312	E375.4	Sulfate	mg/L	244	J	CCV>UCL
MW-17-050312	SW8260B	2-Butanone	ug/l	2.5	UJ	CCV<LCL
MW-17-050312	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL
MW-17-050312	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL, CCV<LCL (UJ)
MW-18-050812	E353.2	Nitrate	mg/L	0.291	J	CCV<LCL
MW-18-050812	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-18-050812	SW8270C	Hexachlorocyclopentadiene	ug/l	2.78	UJ	LCS<LCL
MW-21-042512	E353.2	Nitrate	mg/L	2.5	UJ	MatrixInterference
MW-21-042512	SW8260B	1,1,1-Trichloroethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.2	UJ	HTa>UCL
MW-21-042512	SW8260B	1,1,2-Trichloroethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,1-Dichloroethane	ug/l	0.125	UJ	HTa>UCL

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-21-042512	SW8260B	1,1-Dichloroethene	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2,3-Trichlorobenzene	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2,4-Trichlorobenzene	ug/l	0.2	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dibromoethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dichlorobenzene	ug/l	0.125	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dichloroethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dichloroethene, cis-	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dichloroethene, trans-	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,2-Dichloropropane	ug/l	0.2	UJ	HTa>UCL
MW-21-042512	SW8260B	1,3-Dichlorobenzene	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,3-Dichloropropene, cis-	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	1,4-Dichlorobenzene	ug/l	0.125	UJ	HTa>UCL
MW-21-042512	SW8260B	2-Butanone	ug/l	2.5	UJ	HTa>UCL
MW-21-042512	SW8260B	2-Hexanone	ug/l	2.5	UJ	HTa>UCL
MW-21-042512	SW8260B	4-Methyl-2-pentanone	ug/l	2.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Acetone	ug/l	2.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Benzene	ug/l	0.125	UJ	HTa>UCL
MW-21-042512	SW8260B	Bromochloromethane	ug/l	0.2	UJ	HTa>UCL
MW-21-042512	SW8260B	Bromodichloromethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Bromoform	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Bromomethane	ug/l	0.5	UJ	HTa>UCL, CCV<LCL
MW-21-042512	SW8260B	Carbon Disulfide	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Carbon tetrachloride	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Chlorobenzene	ug/l	0.125	UJ	HTa>UCL
MW-21-042512	SW8260B	Chloroethane	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Chloroform	ug/l	0.125	UJ	HTa>UCL

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-21-042512	SW8260B	Chloromethane	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Cyclohexane	ug/l	1	UJ	HTa>UCL
MW-21-042512	SW8260B	Dibromochloromethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Dichlorodifluoromethane	ug/l	0.25	UJ	HTa>UCL, CCV<LCL
MW-21-042512	SW8260B	Epichlorohydrin	ug/l		UJ	HTa>UCL
MW-21-042512	SW8260B	Ethylbenzene	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Isopropylbenzene	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Methyl Acetate	ug/l	1	UJ	HTa>UCL
MW-21-042512	SW8260B	Methylcyclohexane	ug/l	1	UJ	HTa>UCL
MW-21-042512	SW8260B	Methylene chloride	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Styrene	ug/l	0.125	UJ	HTa>UCL
MW-21-042512	SW8260B	tert-Butyl Methyl Ether	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Tetrachloroethene	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Toluene	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Trichloroethene	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Trichlorofluoromethane	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Trichlorotrifluoroethane	ug/l	2	UJ	HTa>UCL
MW-21-042512	SW8260B	Vinyl chloride	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8260B	Xylene, m,p-	ug/l	0.5	UJ	HTa>UCL
MW-21-042512	SW8260B	Xylene, o-	ug/l	0.25	UJ	HTa>UCL
MW-21-042512	SW8270C	Benzoic Acid	ug/l	11.4	UJ	CCV<LCL
MW-21-042512	SW8270-PAHL	2-Methylnaphthalene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Acenaphthene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Acenaphthylene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Anthracene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Benzo(a)anthracene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Benzo(a)pyrene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Benzo(b)fluoranthene	ug/l	0.0269	UJ	Sur<LCL

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-21-042512	SW8270-PAHL	Benzo(g,h,i)perylene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Benzo(k)fluoranthene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Chrysene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Dibenzo (a,h) anthracene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Fluoranthene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Fluorene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Indeno (1,2,3-c,d) pyrene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Naphthalene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Phenanthrene	ug/l	0.0269	UJ	Sur<LCL
MW-21-042512	SW8270-PAHL	Pyrene	ug/l	0.0269	UJ	Sur<LCL
MW-22-042512	SW6010B	Zinc	mg/L	0.817	J	SD<LCL
MW-22-042512	SW6010B	Zinc, Dissolved	mg/L	0.005	UJ	MS<LCL, SD<LCL
MW-22-042512	SW8270C	Benzoic Acid	ug/l	10	UJ	CCV<LCL
MW-23-042512	SW8270C	Benzoic Acid	ug/l	11	UJ	CCV<LCL
MW-24-050112	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	LCS<LCL
MW-24-050112	SW8270C	Benzoic Acid	ug/l	11.9	R	LCS<LCL, CCV<LCL (UJ)
MW-25-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-25-050212	SW8260B	Chloroform	ug/l	0.762	J	Sur>UCL
MW-25-050212	SW8270C	Benzoic Acid	ug/l	11.1	R	LCS<LCL, CCV<LCL (UJ)
MW-26-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-26-050212	SW8270C	Benzoic Acid	ug/l	11.8	R	LCS<LCL, CCV<LCL (UJ)
MW-27-042612	E365.4	Phosphorus	mg/L	0.998	J	CCV<LCL< SD<LCL, MSRPD
MW-27-042612	E375.4	Sulfate	mg/L	9.45	J	MS<LCL, SD<LCL
MW-27-042612	E415.1	Total Organic Carbon	mg/L	26.7	J	MS<LCL, SD>UCL, MSRPD
MW-27-042612	RSK175	Methane	ug/l	430	J	MS>UCL
MW-27-042612	SW6010B	Sodium	mg/L	84.5	J	MS>UCL
MW-27-042612	SW8260B	Methyl Acetate	ug/l	1	UJ	MS<LCL, SD<LCL
MW-27-042612	SW8270C	1,4-Dioxane	ug/l	5.1	UJ	SD<LCL

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-27-042612	SW8270C	2,4-Dinitrophenol	ug/l	12.8	UJ	CCV<LCL
MW-27-042612	SW8270C	Benzoic Acid	ug/l	10.2	UJ	CCV<LCL
MW-27-042612	SW8270C	Hexachlorocyclopentadiene	ug/l	2.55	R	SD<LCL, MS<LCL (UJ)
MW-28050312	E353.2	Nitrate	mg/L	0.034	J	CCV>UCL
MW-28050312	SW8260B	2-Butanone	ug/l	2.5	UJ	CCV<LCL
MW-28050312	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL
MW-28050312	SW8270C	Benzoic Acid	ug/l	11.1	R	LCS<LCL, CCV<LCL (UJ)
MW-29-043012	E310.2	Alkalinity	mg/L	359	J	CCV>UCL
MW-29-043012	E353.2	Nitrate	mg/L	0.27	J	FD>RPD
MW-29-043012	SW6010B	Cadmium	mg/L	0.000699	J	SD<LCL
MW-29-043012	SW6010B	Zinc	mg/L	0.0128	U	EB<RL
MW-29-043012	SW6020	Selenium	mg/L	0.00186	J	FD>RPD
MW-29-043012	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	LCS<LCL
MW-29-043012	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL
MW-30-042512	E365.4	Phosphorus	mg/L	0.357	J	CCV<LCL
MW-30-042512	RSK175	Methane	ug/l	380	J	FD>RPD
MW-30-042512	SW6020	Arsenic	mg/L	0.00822	J	FD>RPD
MW-30-042512	SW8270C	Benzoic Acid	ug/l	11	UJ	CCV<LCL
MW-31-042612	SW8260B	1,1,1-Trichloroethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.4	UJ	HTa>UCL
MW-31-042612	SW8260B	1,1,2-Trichloroethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,1-Dichloroethane	ug/l	0.25	UJ	HTa>UCL
MW-31-042612	SW8260B	1,1-Dichloroethene	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2,3-Trichlorobenzene	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2,4-Trichlorobenzene	ug/l	0.4	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	2	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2-Dibromoethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2-Dichlorobenzene	ug/l	0.25	UJ	HTa>UCL

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-31-042612	SW8260B	1,2-Dichloroethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2-Dichloroethene, cis-	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2-Dichloroethene, trans-	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,2-Dichloropropane	ug/l	0.4	UJ	HTa>UCL
MW-31-042612	SW8260B	1,3-Dichlorobenzene	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,3-Dichloropropene, cis-	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	1,3-Dichloropropene, trans-	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	1,4-Dichlorobenzene	ug/l	0.25	UJ	HTa>UCL
MW-31-042612	SW8260B	2-Butanone	ug/l	15.9	J	HTa>UCL
MW-31-042612	SW8260B	2-Hexanone	ug/l	5	UJ	HTa>UCL
MW-31-042612	SW8260B	4-Methyl-2-pentanone	ug/l	5	UJ	HTa>UCL
MW-31-042612	SW8260B	Acetone	ug/l	58.2	J	HTa>UCL
MW-31-042612	SW8260B	Benzene	ug/l	0.25	UJ	HTa>UCL
MW-31-042612	SW8260B	Bromochloromethane	ug/l	0.4	UJ	HTa>UCL
MW-31-042612	SW8260B	Bromodichloromethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Bromoform	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	Bromomethane	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	Carbon Disulfide	ug/l	1.78	J	HTa>UCL
MW-31-042612	SW8260B	Carbon tetrachloride	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Chlorobenzene	ug/l	0.25	UJ	HTa>UCL
MW-31-042612	SW8260B	Chloroethane	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	Chloroform	ug/l	0.25	UJ	HTa>UCL
MW-31-042612	SW8260B	Chloromethane	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	Cyclohexane	ug/l	2	UJ	HTa>UCL
MW-31-042612	SW8260B	Dibromochloromethane	ug/l	0.5	UJ	HTa>UCL, CCV<LCL
MW-31-042612	SW8260B	Dichlorodifluoromethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Epichlorohydrin	ug/l	0	UJ	HTa>UCL
MW-31-042612	SW8260B	Ethylbenzene	ug/l	0.5	UJ	HTa>UCL

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-31-042612	SW8260B	Isopropylbenzene	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Methyl Acetate	ug/l	2	UJ	HTa>UCL
MW-31-042612	SW8260B	Methylcyclohexane	ug/l	2	UJ	HTa>UCL
MW-31-042612	SW8260B	Methylene chloride	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Styrene	ug/l	0.25	UJ	HTa>UCL
MW-31-042612	SW8260B	tert-Butyl Methyl Ether	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	Tetrachloroethene	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Toluene	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Trichloroethene	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Trichlorofluoromethane	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Trichlorotrifluoroethane	ug/l	4	UJ	HTa>UCL
MW-31-042612	SW8260B	Vinyl chloride	ug/l	0.5	UJ	HTa>UCL
MW-31-042612	SW8260B	Xylene, m,p-	ug/l	1	UJ	HTa>UCL
MW-31-042612	SW8260B	Xylene, o-	ug/l	0.5	UJ	HTa>UCL
MW-31-050212	E353.2	Nitrate	mg/L	12.5	UJ	CCV<LCL
MW-31-050212	SW8270C	Benzoic Acid	ug/l	23.3	R	LCS<LCL, CCV<LCL (UJ)
MW-31-050212	SW8270-PAHL	2-Methylnaphthalene	ug/l	0.0323	J	Sur<LCL
MW-31-050212	SW8270-PAHL	Acenaphthene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Acenaphthylene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Anthracene	ug/l	0.0355	J	Sur<LCL
MW-31-050212	SW8270-PAHL	Benzo(a)anthracene	ug/l	0.0414	J	Sur<LCL
MW-31-050212	SW8270-PAHL	Benzo(a)pyrene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Benzo(b)fluoranthene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Benzo(g,h,i)perylene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Benzo(k)fluoranthene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Chrysene	ug/l	0.066	J	Sur<LCL
MW-31-050212	SW8270-PAHL	Dibenzo (a,h) anthracene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Fluoranthene	ug/l	0.135	J	Sur<LCL

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MW-31-050212	SW8270-PAHL	Fluorene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Indeno (1,2,3-c,d) pyrene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Naphthalene	ug/l	0.0278	UJ	Sur<LCL
MW-31-050212	SW8270-PAHL	Phenanthrene	ug/l	0.138	J	Sur<LCL
MW-31-050212	SW8270-PAHL	Pyrene	ug/l	0.1	J	Sur<LCL
MW-32-042512	E365.4	Phosphorus	mg/L	2.5	J	CCV<LCL
MW-32-042512	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
MW-32-042512	SW8260B	Dichlorodifluoromethane	ug/l	0.25	UJ	CCV<LCL
MW-32-042512	SW8270C	Benzoic Acid	ug/l	10	UJ	CCV<LCL
PZ-01-050412	E353.2	Nitrate	mg/L	0.163	J	CCV>UCL
PZ-01-050412	SW8260B	2-Butanone	ug/l	2.5	UJ	CCV<LCL
PZ-01-050412	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL
PZ-01-050412	SW8270C	Benzoic Acid	ug/l	12.7	R	LCS<LCL, CCV<LCL (UJ)
PZ-03-050212	SW8260B	1,2-Dichloroethane	ug/l	0.77	J	Sur>UCL
PZ-03-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
PZ-03-050212	SW8270C	Benzoic Acid	ug/l	11.5	R	LCS<LCL, CCV<LCL (UJ)
PZ-04-050212	E353.2	Nitrate	mg/L	1.25	UJ	CCV<LCL
PZ-04-050212	SW8260B	1,1,1-Trichloroethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.2	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,1,2-Trichloroethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,1-Dichloroethane	ug/l	0.125	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,1-Dichloroethene	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2,3-Trichlorobenzene	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2,4-Trichlorobenzene	ug/l	0.2	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2-Dibromoethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2-Dichlorobenzene	ug/l	0.125	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2-Dichloroethane	ug/l	0.25	UJ	HTa>UCL

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
PZ-04-050212	SW8260B	1,2-Dichloroethene, cis-	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2-Dichloroethene, trans-	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,2-Dichloropropane	ug/l	0.2	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,3-Dichlorobenzene	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,3-Dichloropropene, cis-	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	1,4-Dichlorobenzene	ug/l	0.125	UJ	HTa>UCL
PZ-04-050212	SW8260B	2-Butanone	ug/l	2.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	2-Hexanone	ug/l	2.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	4-Methyl-2-pentanone	ug/l	44.2	J	HTa>UCL
PZ-04-050212	SW8260B	Acetone	ug/l	2.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	Benzene	ug/l	0.165	J	HTa>UCL
PZ-04-050212	SW8260B	Bromochloromethane	ug/l	0.2	UJ	HTa>UCL
PZ-04-050212	SW8260B	Bromodichloromethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Bromoform	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	Carbon Disulfide	ug/l	16.3	J	HTa>UCL
PZ-04-050212	SW8260B	Carbon tetrachloride	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Chlorobenzene	ug/l	0.125	UJ	HTa>UCL
PZ-04-050212	SW8260B	Chloroethane	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	Chloroform	ug/l	25.5	J	HTa>UCL
PZ-04-050212	SW8260B	Chloromethane	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	Cyclohexane	ug/l	1	UJ	HTa>UCL
PZ-04-050212	SW8260B	Dibromochloromethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Dichlorodifluoromethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Epichlorohydrin	ug/l	0	UJ	HTa>UCL
PZ-04-050212	SW8260B	Ethylbenzene	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Isopropylbenzene	ug/l	0.25	UJ	HTa>UCL

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
PZ-04-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	HTa>UCL, CCV<LCL, LCS<LCL, LCSD<LCL
PZ-04-050212	SW8260B	Methylcyclohexane	ug/l	1	UJ	HTa>UCL
PZ-04-050212	SW8260B	Methylene chloride	ug/l	8.46	J	HTa>UCL
PZ-04-050212	SW8260B	Styrene	ug/l	0.125	UJ	HTa>UCL
PZ-04-050212	SW8260B	tert-Butyl Methyl Ether	ug/l	0.5	UJ	HTa>UCL
PZ-04-050212	SW8260B	Tetrachloroethene	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Toluene	ug/l	2.1	J	HTa>UCL
PZ-04-050212	SW8260B	Trichloroethene	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Trichlorofluoromethane	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Trichlorotrifluoroethane	ug/l	2	UJ	HTa>UCL
PZ-04-050212	SW8260B	Vinyl chloride	ug/l	0.25	UJ	HTa>UCL
PZ-04-050212	SW8260B	Xylene, m,p-	ug/l	1.27	J	HTa>UCL
PZ-04-050212	SW8260B	Xylene, o-	ug/l	0.413	J	HTa>UCL
PZ-04-050212	SW8270C	Benzoic Acid	ug/l	11.8	R	LCS<LCL, CCV<LCL (UJ)
PZ-05-050212	E353.2	Nitrate	mg/L	1.25	UJ	CCV<LCL
PZ-05-050212	SW8260B	1,1,1-Trichloroethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.2	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,1,2-Trichloroethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,1-Dichloroethane	ug/l	0.125	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,1-Dichloroethene	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2,3-Trichlorobenzene	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2,4-Trichlorobenzene	ug/l	0.2	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2-Dibromoethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2-Dichlorobenzene	ug/l	0.125	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2-Dichloroethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2-Dichloroethene, cis-	ug/l	0.25	UJ	HTa>UCL

Table 3

Qualified Data
Groundwater Monitoring Results Report for April and October 2012 Monitoring Events
Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
PZ-05-050212	SW8260B	1,2-Dichloroethene, trans-	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,2-Dichloropropane	ug/l	0.2	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,3-Dichlorobenzene	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,3-Dichloropropene, cis-	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,3-Dichloropropene, trans-	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	1,4-Dichlorobenzene	ug/l	0.125	UJ	HTa>UCL
PZ-05-050212	SW8260B	2-Butanone	ug/l	4.42	J	HTa>UCL
PZ-05-050212	SW8260B	2-Hexanone	ug/l	2.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	4-Methyl-2-pentanone	ug/l	531	J	HTa>UCL
PZ-05-050212	SW8260B	Acetone	ug/l	27.1	J	HTa>UCL
PZ-05-050212	SW8260B	Benzene	ug/l	0.278	J	HTa>UCL
PZ-05-050212	SW8260B	Bromochloromethane	ug/l	0.2	UJ	HTa>UCL
PZ-05-050212	SW8260B	Bromodichloromethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Bromoform	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	Bromomethane	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	Carbon Disulfide	ug/l	73.8	J	HTa>UCL
PZ-05-050212	SW8260B	Carbon tetrachloride	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Chlorobenzene	ug/l	0.125	UJ	HTa>UCL
PZ-05-050212	SW8260B	Chloroethane	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	Chloroform	ug/l	27.2	J	HTa>UCL
PZ-05-050212	SW8260B	Chloromethane	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	Cyclohexane	ug/l	1	UJ	HTa>UCL
PZ-05-050212	SW8260B	Dibromochloromethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Dichlorodifluoromethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Epichlorohydrin	ug/l	0	UJ	HTa>UCL
PZ-05-050212	SW8260B	Ethylbenzene	ug/l	0.294	J	HTa>UCL
PZ-05-050212	SW8260B	Isopropylbenzene	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Methyl Acetate	ug/l	1	UJ	HTa>UCL, CCV<LCL, LCS<LCL,

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
						LCSD<LCL
PZ-05-050212	SW8260B	Methylcyclohexane	ug/l	1	UJ	HTa>UCL
PZ-05-050212	SW8260B	Methylene chloride	ug/l	6.89	J	HTa>UCL
PZ-05-050212	SW8260B	Styrene	ug/l	0.125	UJ	HTa>UCL
PZ-05-050212	SW8260B	tert-Butyl Methyl Ether	ug/l	0.5	UJ	HTa>UCL
PZ-05-050212	SW8260B	Tetrachloroethene	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Toluene	ug/l	14.7	J	HTa>UCL
PZ-05-050212	SW8260B	Trichloroethene	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Trichlorofluoromethane	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Trichlorotrifluoroethane	ug/l	2	UJ	HTa>UCL
PZ-05-050212	SW8260B	Vinyl chloride	ug/l	0.25	UJ	HTa>UCL
PZ-05-050212	SW8260B	Xylene, m,p-	ug/l	3.95	J	HTa>UCL
PZ-05-050212	SW8260B	Xylene, o-	ug/l	1.36	J	HTa>UCL
PZ-05-050212	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL, CCV<LCL (UJ)
PZ-06-050712	SW8270C	Benzoic Acid	ug/l	31.7	UJ	CCV<LCL
PZ-07-050812	E353.2	Nitrate	mg/L	0.025	UJ	CCV<LCL
PZ-07-050812	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
PZ-07-050812	SW8270C	Hexachlorocyclopentadiene	ug/l	2.69	UJ	LCS<LCL
PZ-07-050812	SW8270-PAHL	2-Methylnaphthalene	ug/l	0.0269	UJ	Sur<LCL
PZ-07-050812	SW8270-PAHL	Acenaphthene	ug/l	0.164	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Acenaphthylene	ug/l	0.0269	UJ	Sur<LCL
PZ-07-050812	SW8270-PAHL	Anthracene	ug/l	0.203	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Benzo(a)anthracene	ug/l	0.0606	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Benzo(a)pyrene	ug/l	0.0274	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Benzo(b)fluoranthene	ug/l	0.0321	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Benzo(g,h,i)perylene	ug/l	0.0269	UJ	Sur<LCL
PZ-07-050812	SW8270-PAHL	Benzo(k)fluoranthene	ug/l	0.0286	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Chrysene	ug/l	0.069	J	Sur<LCL

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
PZ-07-050812	SW8270-PAHL	Dibenzo (a,h) anthracene	ug/l	0.0269	UJ	Sur<LCL
PZ-07-050812	SW8270-PAHL	Fluoranthene	ug/l	0.734	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Fluorene	ug/l	0.191	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Indeno (1,2,3-c,d) pyrene	ug/l	0.0269	UJ	Sur<LCL
PZ-07-050812	SW8270-PAHL	Naphthalene	ug/l	0.0269	UJ	Sur<LCL
PZ-07-050812	SW8270-PAHL	Phenanthrene	ug/l	0.037	J	Sur<LCL
PZ-07-050812	SW8270-PAHL	Pyrene	ug/l	0.47	J	Sur<LCL
TW-01-050812	E353.2	Nitrate	mg/L	0.025	UJ	CCV<LCL
TW-01-050812	E365.4	Phosphorus	mg/L	0.1	UJ	MS<LCL
TW-01-050812	SW8260B	Bromomethane	ug/l	0.5	UJ	CCV<LCL
TW-01-050812	SW8270C	Hexachlorocyclopentadiene	ug/l	2.5	UJ	LCS<LCL
TW-02-050312	E353.2	Nitrate	mg/L	0.161	J	CCV>UCL
TW-02-050312	SW8260B	2-Butanone	ug/l	2.5	UJ	CCV<LCL
TW-02-050312	SW8260B	Methyl Acetate	ug/l	1	UJ	CCV<LCL
TW-02-050312	SW8270C	Benzoic Acid	ug/l	10	R	LCS<LCL, CCV<LCL (UJ)
Validation Reasons:						
CCB<RL	The analyte was detected in the calibration blank at a concentration less than the reporting limit					
CCV<LCL	Continuing calibration verification recovered less than method criteria					
CCV>UCL	Continuing calibration verification recovered greater than method criteria					
EB<RL	The analyte was detected in the equipment blank at a concentration less than the reporting limit					
FD>RPD	The relative percent difference exceeded control limits in the FD pair.					
HTa>UCL	The analytical holding-time criterion was exceeded					
IS<LCL	The internal standard recovered less than method criteria					
LB<RL	The analyte was detected in the method blank at a concentration less than the reporting limit					
LCS<LCL	The laboratory control sample recovered less than the lower control limit					
LCS>UCL	The laboratory control sample recovered greater than the upper control limit					
LCSD<LCL	The laboratory control sample duplicate recovered less than the lower control limit					
MatrixInterference	The analyte was qualified as estimated due to matrix interference					

Table 3						
Qualified Data Groundwater Monitoring Results Report for April and October 2012 Monitoring Events Former Hampshire Chemical Corp. Facility, Waterloo, New York						
Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
MS<LCL	The matrix spike recovered less than the lower control limit					
MS>UCL	The matrix spike recovered greater than the upper control limit					
MSRPD	The relative percent difference exceeded criteria in the MS/MSD					
PS<LCL	The post digestion spike recovered less than the lower control limit					
PS>UCL	The post digestion spike recovered greater than the upper control limit					
SD<LCL	The matrix spike duplicate recovered less than the lower control limit					
SD>UCL	The matrix spike duplicate recovered greater than the upper control limit					
SDIL	The relative percent difference exceeded criteria in the serial dilution					
Sur<LCL	The surrogate recovered less than the lower control limit					
Sur>UCL	The surrogate recovered greater than the upper control limit					