



ANALYTICAL REPORT

Lab Number:	L1821978
Client:	CH2M / Dow Chemical Company 299 Madison Ave. Morristown, NJ 07960
ATTN:	David Newman
Phone:	(862) 242-7061
Project Name:	FORMER HAMPSHIRE CHEMICAL CORP
Project Number:	701970.01.SA
Report Date:	06/19/18

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Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1821978-01	MW02-061218	WATER	WATERLOO, NY	06/12/18 10:10	06/12/18
L1821978-02	DUP-GW-061218	WATER	WATERLOO, NY	06/12/18 10:15	06/12/18
L1821978-03	MW09R-061218	WATER	WATERLOO, NY	06/12/18 09:50	06/12/18
L1821978-04	MW11S-061218	WATER	WATERLOO, NY	06/12/18 11:35	06/12/18
L1821978-05	MW01-061218	WATER	WATERLOO, NY	06/12/18 15:10	06/12/18
L1821978-06	MW30-061218	WATER	WATERLOO, NY	06/12/18 15:00	06/12/18
L1821978-07	TB-061218	WATER	WATERLOO, NY	06/12/18 08:00	06/12/18
L1821978-08	MW21-061218	WATER	WATERLOO, NY	06/12/18 17:10	06/12/18

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
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Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
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Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1821978-08: The sample was received above the appropriate pHs for the Total Metals, Dissolved Metals, TKN, Ammonia, and Total Phosphorus analyses. The laboratory added additional HNO₃ (metals) and H₂SO₄ (TKN, NH₃, TPO₄); however, the pHs would not adjust into the proper ranges.

Volatile Organics

L1821978-01, -02, -03, -05, and -07 and the associated method blank were evaluated for the presence of the following project specific TIC and were determined to be non-detect: dimethyl disulfide.

Semivolatile Organics

The WG1127033-2 LCS recovery, associated with L1821978-03, is above the individual acceptance criteria for 4-nitrophenol (82%), but within the overall method allowances. The results of the associated sample are reported.

The WG1127033-2/-3 LCS/LCSD RPDs for benzidine (38%) and benzoic acid (31%), associated with L1821978-03, are above the acceptance criteria.

Total Metals

L1821978-08: The sample has elevated detection limits due to the prep dilution required by the sample matrix. The WG1126417-3 MS recovery for silica (136%), performed on L1821978-01, does not apply because the sample concentration is greater than four times the spike amount added.

The WG1126419-3 MS recoveries for calcium (300%) and sodium (40%), performed on L1821978-01, do not apply because the sample concentrations are greater than four times the spike amount added.

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Case Narrative (continued)

Dissolved Metals

L1821978-08: The sample has elevated detection limits for all elements due to the prep dilution required by the sample matrix and the dilution required by the high concentrations of target and non-target elements.

Total Organic Carbon

L1821978-04: The sample has an elevated detection limit due to the dilution required by the sample matrix.

Nitrogen, Nitrate

L1821978-08: The sample has an elevated detection limit due to the dilution required by the sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Amita Naik

Title: Technical Director/Representative

Date: 06/19/18

ORGANICS

VOLATILES

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-01
Client ID: MW02-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/16/18 10:56
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
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SAMPLE RESULTS

Lab ID: L1821978-01
Client ID: MW02-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	26		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
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Lab Number: L1821978
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SAMPLE RESULTS

Lab ID: L1821978-01
Client ID: MW02-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1

Tentatively Identified Compounds

Total TIC Compounds	132	J	ug/l			1
Unknown	9.93	J	ug/l			1
Unknown	3.50	J	ug/l			1
Unknown	51.3	J	ug/l			1
Unknown	13.6	J	ug/l			1
Unknown	4.97	J	ug/l			1
Unknown	2.73	J	ug/l			1
Unknown	7.69	J	ug/l			1
Unknown	8.26	J	ug/l			1
Unknown	3.74	J	ug/l			1
Unknown	26.2	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-02
Client ID: DUP-GW-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:15
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/16/18 11:21
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
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SAMPLE RESULTS

Lab ID: L1821978-02
Client ID: DUP-GW-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:15
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	28		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-02
Client ID: DUP-GW-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:15
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1

Tentatively Identified Compounds

Total TIC Compounds	142	J	ug/l			1
Unknown	3.37	J	ug/l			1
Unknown	4.19	J	ug/l			1
Unknown	28.0	J	ug/l			1
Unknown	5.06	J	ug/l			1
Unknown	52.5	J	ug/l			1
Unknown	8.91	J	ug/l			1
Unknown	14.2	J	ug/l			1
Unknown	10.6	J	ug/l			1
Unknown	7.99	J	ug/l			1
Unknown	7.15	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/16/18 11:46
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1

Tentatively Identified Compounds

Total TIC Compounds	17.4	J	ug/l			1
Unknown	5.36	J	ug/l			1
Unknown	12.0	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-05
Client ID: MW01-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 15:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/16/18 12:11
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	0.16	J	ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-05
Client ID: MW01-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 15:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-05
Client ID: MW01-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 15:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1

Tentatively Identified Compounds

Total TIC Compounds	9.22	J	ug/l			1
Unknown	9.22	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-07
Client ID: TB-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 08:00
Date Received: 06/12/18
Field Prep: None

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/16/18 10:31
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-07
Client ID: TB-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 08:00
Date Received: 06/12/18
Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-07
Client ID: TB-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 08:00
Date Received: 06/12/18
Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/16/18 09:01
 Analyst: BD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05,07 Batch: WG1127131-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/16/18 09:01
 Analyst: BD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05,07 Batch: WG1127131-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
o-Chlorotoluene	ND		ug/l	2.5	0.70

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/16/18 09:01
 Analyst: BD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05,07 Batch: WG1127131-5					
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	0.70	J	ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05,07 Batch: WG1127131-3 WG1127131-4								
Methylene chloride	97		97		70-130	0		20
1,1-Dichloroethane	98		96		70-130	2		20
Chloroform	96		94		70-130	2		20
Carbon tetrachloride	96		95		63-132	1		20
1,2-Dichloropropane	98		98		70-130	0		20
Dibromochloromethane	81		81		63-130	0		20
1,1,2-Trichloroethane	99		98		70-130	1		20
Tetrachloroethene	93		90		70-130	3		20
Chlorobenzene	95		94		75-130	1		20
Trichlorofluoromethane	97		94		62-150	3		20
1,2-Dichloroethane	94		94		70-130	0		20
1,1,1-Trichloroethane	95		94		67-130	1		20
Bromodichloromethane	94		95		67-130	1		20
trans-1,3-Dichloropropene	86		85		70-130	1		20
cis-1,3-Dichloropropene	98		99		70-130	1		20
1,1-Dichloropropene	96		94		70-130	2		20
Bromoform	77		77		54-136	0		20
1,1,2,2-Tetrachloroethane	93		95		67-130	2		20
Benzene	98		97		70-130	1		20
Toluene	95		92		70-130	3		20
Ethylbenzene	95		92		70-130	3		20
Chloromethane	110		110		64-130	0		20
Bromomethane	110		100		39-139	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05,07 Batch: WG1127131-3 WG1127131-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	99		95		61-145	4		20
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	91		92		70-130	1		20
1,2-Dichlorobenzene	98		96		70-130	2		20
1,3-Dichlorobenzene	97		96		70-130	1		20
1,4-Dichlorobenzene	97		95		70-130	2		20
Methyl tert butyl ether	95		97		63-130	2		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	100		97		70-130	3		20
Dibromomethane	95		96		70-130	1		20
1,2,3-Trichloropropane	88		95		64-130	8		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	100		100		36-147	0		20
Acetone	88		86		58-148	2		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	90		94		63-138	4		20
Vinyl acetate	97		98		70-130	1		20
4-Methyl-2-pentanone	85		88		59-130	3		20
2-Hexanone	84		85		57-130	1		20
Bromochloromethane	96		99		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05,07 Batch: WG1127131-3 WG1127131-4								
2,2-Dichloropropane	100		99		63-133	1		20
1,2-Dibromoethane	94		95		70-130	1		20
1,3-Dichloropropane	95		96		70-130	1		20
1,1,1,2-Tetrachloroethane	95		95		64-130	0		20
Bromobenzene	96		94		70-130	2		20
n-Butylbenzene	100		99		53-136	1		20
sec-Butylbenzene	100		96		70-130	4		20
tert-Butylbenzene	100		96		70-130	4		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	100		96		70-130	4		20
1,2-Dibromo-3-chloropropane	77		78		41-144	1		20
Hexachlorobutadiene	130		110		63-130	17		20
Isopropylbenzene	98		95		70-130	3		20
p-Isopropyltoluene	100		98		70-130	2		20
Naphthalene	94		87		70-130	8		20
n-Propylbenzene	98		94		69-130	4		20
1,2,3-Trichlorobenzene	120		100		70-130	18		20
1,2,4-Trichlorobenzene	110		99		70-130	11		20
1,3,5-Trimethylbenzene	100		96		64-130	4		20
1,2,4-Trimethylbenzene	100		97		70-130	3		20
1,4-Dioxane	96		102		56-162	6		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05,07 Batch: WG1127131-3 WG1127131-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	98		99		70-130

SEMIVOLATILES

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 06/19/18 12:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 06/18/18 10:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.5	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Tentatively Identified Compounds

Total TIC Compounds	648	J	ug/l	1
Unknown	5.60	J	ug/l	1
Aldol Condensate	30.1	J	ug/l	1
(1,4,5)Oxadithiepane	560	NJ	ug/l	1
Unknown	6.73	J	ug/l	1
1,4-Oxathiane	37.8	NJ	ug/l	1
Unknown	8.07	J	ug/l	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	104		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/18 14:31
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.04	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-03
Client ID: MW09R-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 09:50
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	73		10-120
4-Terphenyl-d14	59		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 06/16/18 12:45
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 06/15/18 22:23

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 03 Batch: WG1126589-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**Method Blank Analysis**
Batch Quality ControlAnalytical Method: 1,8270D-SIM
Analytical Date: 06/16/18 12:45
Analyst: DVExtraction Method: EPA 3510C
Extraction Date: 06/15/18 22:23

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 03 Batch: WG1126589-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	66		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 06/19/18 11:10
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 06/18/18 10:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1127033-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Isophorone	ND		ug/l	5.0	1.2
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38
Dimethyl phthalate	ND		ug/l	5.0	1.8
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 06/19/18 11:10
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 06/18/18 10:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1127033-1					
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Tentatively Identified Compounds

Total TIC Compounds	12.3	J	ug/l
Aldol Condensate	10.7	J	ug/l
Unknown Organic Acid	1.64	J	ug/l

Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**Method Blank Analysis**
Batch Quality ControlAnalytical Method: 1,8270D
Analytical Date: 06/19/18 11:10
Analyst: ALSExtraction Method: EPA 3510C
Extraction Date: 06/18/18 10:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1127033-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	43		10-120
4-Terphenyl-d14	76		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 03 Batch: WG1126589-2 WG1126589-3								
Acenaphthene	89		93		40-140	4		40
2-Chloronaphthalene	80		84		40-140	5		40
Fluoranthene	87		91		40-140	4		40
Hexachlorobutadiene	76		81		40-140	6		40
Naphthalene	78		83		40-140	6		40
Benzo(a)anthracene	87		91		40-140	4		40
Benzo(a)pyrene	79		82		40-140	4		40
Benzo(b)fluoranthene	75		83		40-140	10		40
Benzo(k)fluoranthene	80		75		40-140	6		40
Chrysene	76		79		40-140	4		40
Acenaphthylene	90		94		40-140	4		40
Anthracene	85		89		40-140	5		40
Benzo(ghi)perylene	80		84		40-140	5		40
Fluorene	93		96		40-140	3		40
Phenanthrene	84		88		40-140	5		40
Dibenzo(a,h)anthracene	89		93		40-140	4		40
Indeno(1,2,3-cd)pyrene	99		104		40-140	5		40
Pyrene	84		88		40-140	5		40
2-Methylnaphthalene	80		83		40-140	4		40
Pentachlorophenol	92		100		40-140	8		40
Hexachlorobenzene	79		83		40-140	5		40
Hexachloroethane	74		78		40-140	5		40

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 03 Batch: WG1126589-2 WG1126589-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	64		68		21-120
Phenol-d6	59		63		10-120
Nitrobenzene-d5	73		77		23-120
2-Fluorobiphenyl	72		75		15-120
2,4,6-Tribromophenol	89		93		10-120
4-Terphenyl-d14	73		75		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1127033-2 WG1127033-3								
1,2,4-Trichlorobenzene	72		72		39-98	0		30
Bis(2-chloroethyl)ether	72		71		40-140	1		30
1,2-Dichlorobenzene	71		70		40-140	1		30
1,3-Dichlorobenzene	71		66		40-140	7		30
1,4-Dichlorobenzene	70		69		36-97	1		30
3,3'-Dichlorobenzidine	72		66		40-140	9		30
2,4-Dinitrotoluene	102		93		48-143	9		30
2,6-Dinitrotoluene	87		90		40-140	3		30
4-Chlorophenyl phenyl ether	99		87		40-140	13		30
4-Bromophenyl phenyl ether	94		88		40-140	7		30
Bis(2-chloroisopropyl)ether	66		65		40-140	2		30
Bis(2-chloroethoxy)methane	76		73		40-140	4		30
Hexachlorocyclopentadiene	78		82		40-140	5		30
Isophorone	85		80		40-140	6		30
Nitrobenzene	79		76		40-140	4		30
NDPA/DPA	100		90		40-140	11		30
n-Nitrosodi-n-propylamine	81		80		29-132	1		30
Bis(2-ethylhexyl)phthalate	90		84		40-140	7		30
Butyl benzyl phthalate	95		87		40-140	9		30
Di-n-butylphthalate	101		90		40-140	12		30
Di-n-octylphthalate	91		81		40-140	12		30
Diethyl phthalate	107		94		40-140	13		30
Dimethyl phthalate	89		87		40-140	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1127033-2 WG1127033-3								
Biphenyl	83		82		40-140	1		30
4-Chloroaniline	70		64		40-140	9		30
2-Nitroaniline	88		82		52-143	7		30
3-Nitroaniline	93		86		25-145	8		30
4-Nitroaniline	91		83		51-143	9		30
Dibenzofuran	92		88		40-140	4		30
1,2,4,5-Tetrachlorobenzene	81		78		2-134	4		30
Acetophenone	79		77		39-129	3		30
2,4,6-Trichlorophenol	79		80		30-130	1		30
p-Chloro-m-cresol	95		88		23-97	8		30
2-Chlorophenol	76		75		27-123	1		30
2,4-Dichlorophenol	87		83		30-130	5		30
2,4-Dimethylphenol	84		76		30-130	10		30
2-Nitrophenol	78		74		30-130	5		30
4-Nitrophenol	82	Q	78		10-80	5		30
2,4-Dinitrophenol	63		62		20-130	2		30
4,6-Dinitro-o-cresol	79		73		20-164	8		30
Phenol	59		58		12-110	2		30
2-Methylphenol	79		77		30-130	3		30
3-Methylphenol/4-Methylphenol	81		76		30-130	6		30
2,4,5-Trichlorophenol	84		83		30-130	1		30
Benzoic Acid	60		44		10-164	31	Q	30
Benzyl Alcohol	79		76		26-116	4		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1127033-2 WG1127033-3								
Carbazole	97		87		55-144	11		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	63		64		21-120
Phenol-d6	57		54		10-120
Nitrobenzene-d5	78		74		23-120
2-Fluorobiphenyl	84		80		15-120
2,4,6-Tribromophenol	91		80		10-120
4-Terphenyl-d14	89		84		41-149

METALS

Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**SAMPLE RESULTS**

Lab ID: L1821978-01

Date Collected: 06/12/18 10:10

Client ID: MW02-061218

Date Received: 06/12/18

Sample Location: WATERLOO, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00965	J	mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00070		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Calcium, Total	172.		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Chromium, Total	0.00354		mg/l	0.00100	0.00017	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Iron, Total	0.204		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Magnesium, Total	19.6		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Manganese, Total	0.03557		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Potassium, Total	7.52		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 10:37	EPA 3005A	1,6020A	AM
Silica, Total	37.4		mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 18:42	EPA 3005A	19,200.7	MC
Sodium, Total	705.		mg/l	1.00	0.293	10	06/15/18 13:15	06/18/18 11:31	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00662	J	mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 13:51	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00056		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 13:51	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00406		mg/l	0.00100	0.00017	1	06/14/18 13:00	06/15/18 13:51	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0928		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 13:51	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.03843		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 13:51	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**SAMPLE RESULTS**

Lab ID: L1821978-02

Date Collected: 06/12/18 10:15

Client ID: DUP-GW-061218

Date Received: 06/12/18

Sample Location: WATERLOO, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0105		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00068		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Calcium, Total	164.		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Chromium, Total	0.00335		mg/l	0.00100	0.00017	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Iron, Total	0.196		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Magnesium, Total	18.6		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Manganese, Total	0.03370		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Potassium, Total	7.21		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 11:02	EPA 3005A	1,6020A	AM
Silica, Total	35.6		mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 19:29	EPA 3005A	19,200.7	MC
Sodium, Total	654.		mg/l	5.00	1.46	50	06/15/18 13:15	06/18/18 12:15	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00792	J	mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 13:55	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00053		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 13:55	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00409		mg/l	0.00100	0.00017	1	06/14/18 13:00	06/15/18 13:55	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0894		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 13:55	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.03753		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 13:55	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**SAMPLE RESULTS**

Lab ID: L1821978-03

Date Collected: 06/12/18 09:50

Client ID: MW09R-061218

Date Received: 06/12/18

Sample Location: WATERLOO, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00724	J	mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00662		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Calcium, Total	307.		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Iron, Total	7.96		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Magnesium, Total	90.4		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Manganese, Total	0.7392		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Potassium, Total	8.27		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 11:06	EPA 3005A	1,6020A	AM
Sodium, Total	602.		mg/l	5.00	1.46	50	06/15/18 13:15	06/18/18 12:19	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 12:44	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00460		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 12:44	EPA 3005A	1,6020A	AM
Iron, Dissolved	6.99		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 12:44	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.7469		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 12:44	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**SAMPLE RESULTS**

Lab ID: L1821978-04

Date Collected: 06/12/18 11:35

Client ID: MW11S-061218

Date Received: 06/12/18

Sample Location: WATERLOO, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0102		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Arsenic, Total	0.8214		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Calcium, Total	10.5		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Iron, Total	0.0744		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Magnesium, Total	18.1		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Manganese, Total	0.04326		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Potassium, Total	2.36		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 11:10	EPA 3005A	1,6020A	AM
Silica, Total	15.1		mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 19:46	EPA 3005A	19,200.7	MC
Sodium, Total	638.		mg/l	5.00	1.46	50	06/15/18 13:15	06/18/18 12:23	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 12:48	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.7553		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 12:48	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0927		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 12:48	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.04567		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 12:48	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-05
Client ID: MW01-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 15:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0107		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Arsenic, Total	0.01243		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Calcium, Total	100.		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Chromium, Total	0.00133		mg/l	0.00100	0.00017	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Iron, Total	2.61		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Magnesium, Total	15.4		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Manganese, Total	0.1474		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Potassium, Total	4.42		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Silica, Total	10.0		mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 19:50	EPA 3005A	19,200.7	MC
Sodium, Total	371.		mg/l	0.100	0.0293	1	06/15/18 13:15	06/18/18 11:15	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 12:51	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00925		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 12:51	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00116		mg/l	0.00100	0.00017	1	06/14/18 13:00	06/15/18 12:51	EPA 3005A	1,6020A	AM
Iron, Dissolved	1.75		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 12:51	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.1598		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 12:51	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**SAMPLE RESULTS**

Lab ID: L1821978-06

Date Collected: 06/12/18 15:00

Client ID: MW30-061218

Date Received: 06/12/18

Sample Location: WATERLOO, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0367		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00392		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Calcium, Total	57.0		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Iron, Total	0.513		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Magnesium, Total	16.3		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Manganese, Total	0.04578		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Potassium, Total	9.06		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 11:19	EPA 3005A	1,6020A	AM
Silica, Total	17.7		mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 19:54	EPA 3005A	19,200.7	MC
Sodium, Total	521.		mg/l	5.00	1.46	50	06/15/18 13:15	06/18/18 12:28	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.0187		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 12:55	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00296		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 12:55	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.530		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 12:55	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.05358		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 12:55	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**SAMPLE RESULTS**

Lab ID: L1821978-08

Date Collected: 06/12/18 17:10

Client ID: MW21-061218

Date Received: 06/12/18

Sample Location: WATERLOO, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.33		mg/l	0.0500	0.0164	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Arsenic, Total	3.106		mg/l	0.00250	0.00082	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Calcium, Total	6.82		mg/l	0.500	0.197	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Iron, Total	0.788		mg/l	0.250	0.0955	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Magnesium, Total	4.33		mg/l	0.350	0.121	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Manganese, Total	0.03722		mg/l	0.00500	0.00220	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Potassium, Total	4.12		mg/l	0.500	0.154	1	06/15/18 13:15	06/18/18 11:23	EPA 3005A	1,6020A	AM
Silica, Total	18.2		mg/l	2.50	0.037	1	06/15/18 13:15	06/15/18 19:59	EPA 3005A	19,200.7	MC
Sodium, Total	6980		mg/l	25.0	7.32	50	06/15/18 13:15	06/18/18 12:07	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	1.22		mg/l	0.250	0.0818	5	06/14/18 13:00	06/15/18 12:59	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	2.418		mg/l	0.01250	0.00412	5	06/14/18 13:00	06/15/18 12:59	EPA 3005A	1,6020A	AM
Iron, Dissolved	1.06	J	mg/l	1.25	0.478	5	06/14/18 13:00	06/15/18 12:59	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.1144		mg/l	0.02500	0.01100	5	06/14/18 13:00	06/15/18 12:59	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-06,08 Batch: WG1125937-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Iron, Dissolved	0.0197	J	mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-06,08 Batch: WG1126417-1										
Silica, Total	0.021	J	mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 18:29	19,200.7	MC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06,08 Batch: WG1126419-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG1125937-2								
Aluminum, Dissolved	109		-		80-120	-		
Arsenic, Dissolved	106		-		80-120	-		
Chromium, Dissolved	103		-		80-120	-		
Iron, Dissolved	113		-		80-120	-		
Manganese, Dissolved	102		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06,08 Batch: WG1126417-2								
Silica, Total	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG1126419-2								
Aluminum, Total	102		-		80-120	-		
Arsenic, Total	102		-		80-120	-		
Calcium, Total	101		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Iron, Total	108		-		80-120	-		
Magnesium, Total	106		-		80-120	-		
Manganese, Total	98		-		80-120	-		
Potassium, Total	104		-		80-120	-		
Sodium, Total	99		-		80-120	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG1125937-3 WG1125937-4 QC Sample: L1821549-01 Client ID: MS Sample												
Aluminum, Dissolved	0.00438J	2	1.96	98		1.98	99		75-125	1		20
Arsenic, Dissolved	0.00533	0.12	0.1295	103		0.1283	102		75-125	1		20
Chromium, Dissolved	0.00167	0.2	0.1944	96		0.1941	96		75-125	0		20
Iron, Dissolved	4.38	1	5.28	90		5.30	92		75-125	0		20
Manganese, Dissolved	0.1830	0.5	0.6449	92		0.6450	92		75-125	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1126417-3 QC Sample: L1821978-01 Client ID: MW02-061218												
Silica, Total	37.4	2.14	40.3	136	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1126417-7 QC Sample: L1822326-01 Client ID: MS Sample												
Silica, Total	10.7	2.14	14.3	168	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG1126419-3 QC Sample: L1821978-01 Client ID: MW02-061218												
Aluminum, Total	0.00965J	2	2.01	100		-	-		75-125	-		20
Arsenic, Total	0.00070	0.12	0.1235	102		-	-		75-125	-		20
Calcium, Total	172.	10	202	300	Q	-	-		75-125	-		20
Chromium, Total	0.00354	0.2	0.2007	98		-	-		75-125	-		20
Iron, Total	0.204	1	1.29	109		-	-		75-125	-		20
Magnesium, Total	19.6	10	31.5	119		-	-		75-125	-		20
Manganese, Total	0.03557	0.5	0.5232	98		-	-		75-125	-		20
Potassium, Total	7.52	10	18.3	108		-	-		75-125	-		20
Sodium, Total	705.	10	709	40	Q	-	-		75-125	-		20

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1821978
Report Date: 06/19/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1126417-4 QC Sample: L1821978-01 Client ID: MW02-061218						
Silica, Total	37.4	36.0	mg/l	4		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG1126419-4 QC Sample: L1821978-01 Client ID: MW02-061218						
Aluminum, Total	0.00965J	0.00978J	mg/l	NC		20
Arsenic, Total	0.00070	0.00068	mg/l	3		20
Calcium, Total	172.	166	mg/l	4		20
Chromium, Total	0.00354	0.00350	mg/l	1		20
Iron, Total	0.204	0.209	mg/l	2		20
Magnesium, Total	19.6	18.8	mg/l	4		20
Manganese, Total	0.03557	0.03423	mg/l	4		20
Potassium, Total	7.52	7.25	mg/l	4		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG1126419-4 QC Sample: L1821978-01 Client ID: MW02-061218						
Sodium, Total	705.	681	mg/l	3		20

INORGANICS & MISCELLANEOUS

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-01
Client ID: MW02-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	645.		mg CaCO3/L	5.00	NA	2.5	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	2700		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	0.148		mg/l	0.075	0.024	1	06/13/18 13:43	06/15/18 23:42	44,350.1	AT
Nitrogen, Nitrate	0.051	J	mg/l	0.10	0.033	1	-	06/13/18 18:30	44,353.2	MR
Nitrogen, Total Kjeldahl	3.63		mg/l	0.300	0.066	1	06/13/18 16:30	06/15/18 22:41	4,351.3/.1 (M)	AT
Phosphorus, Total	0.401		mg/l	0.010	0.003	1	06/13/18 09:45	06/13/18 15:08	121,4500P-E	SD
Phosphorus, Orthophosphate	0.413		mg/l	0.125	0.025	25	-	06/13/18 07:56	121,4500P-E	UN
Sulfide	17.		mg/l	5.0	5.0	50	06/14/18 19:30	06/15/18 03:21	121,4500S2-AD	CW
Total Organic Carbon	11.4		mg/l	5.00	1.14	10	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	478.		mg/l	50.0	8.39	100	-	06/14/18 19:55	44,300.0	AU
Sulfate	907.		mg/l	100	16.0	100	-	06/14/18 19:55	44,300.0	AU



Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-02
Client ID: DUP-GW-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 10:15
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	640.		mg CaCO3/L	5.00	NA	2.5	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	2700		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	0.147		mg/l	0.075	0.024	1	06/13/18 13:43	06/15/18 23:43	44,350.1	AT
Nitrogen, Nitrate	0.055	J	mg/l	0.10	0.033	1	-	06/13/18 18:31	44,353.2	MR
Nitrogen, Total Kjeldahl	4.48		mg/l	0.300	0.066	1	06/13/18 16:30	06/15/18 22:41	4,351.3/.1 (M)	AT
Phosphorus, Total	0.401		mg/l	0.010	0.003	1	06/13/18 09:45	06/13/18 15:09	121,4500P-E	SD
Phosphorus, Orthophosphate	0.413		mg/l	0.125	0.025	25	-	06/13/18 07:56	121,4500P-E	UN
Sulfide	64.		mg/l	10	10.	100	06/14/18 19:30	06/15/18 03:22	121,4500S2-AD	CW
Total Organic Carbon	11.5		mg/l	5.00	1.14	10	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	433.		mg/l	50.0	8.39	100	-	06/14/18 20:07	44,300.0	AU
Sulfate	899.		mg/l	100	16.0	100	-	06/14/18 20:07	44,300.0	AU



Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-04
Client ID: MW11S-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 11:35
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	298.		mg CaCO3/L	2.00	NA	1	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	1900		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	0.375		mg/l	0.075	0.024	1	06/13/18 13:43	06/15/18 23:28	44,350.1	AT
Nitrogen, Nitrate	0.036	J	mg/l	0.10	0.033	1	-	06/13/18 18:33	44,353.2	MR
Nitrogen, Total Kjeldahl	0.531		mg/l	0.300	0.066	1	06/13/18 16:30	06/15/18 22:42	4,351.3/.1 (M)	AT
Phosphorus, Total	0.368		mg/l	0.010	0.003	1	06/13/18 09:45	06/13/18 15:10	121,4500P-E	SD
Phosphorus, Orthophosphate	0.123		mg/l	0.005	0.001	1	-	06/13/18 07:56	121,4500P-E	UN
Sulfide	0.26		mg/l	0.10	0.10	1	06/14/18 19:30	06/15/18 03:22	121,4500S2-AD	CW
Total Organic Carbon	1.99	J	mg/l	2.00	0.456	4	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	792.		mg/l	50.0	8.39	100	-	06/18/18 05:10	44,300.0	JR
Sulfate	243.		mg/l	100	16.0	100	-	06/18/18 05:10	44,300.0	JR



Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-05
Client ID: MW01-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 15:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	241.		mg CaCO3/L	2.00	NA	1	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	1400		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	0.640		mg/l	0.075	0.024	1	06/13/18 13:43	06/15/18 23:29	44,350.1	AT
Nitrogen, Nitrate	0.076	J	mg/l	0.10	0.033	1	-	06/13/18 18:38	44,353.2	MR
Nitrogen, Total Kjeldahl	0.864		mg/l	0.300	0.066	1	06/13/18 16:30	06/15/18 22:43	4,351.3/.1 (M)	AT
Phosphorus, Total	0.168		mg/l	0.010	0.003	1	06/13/18 09:45	06/13/18 15:11	121,4500P-E	SD
Phosphorus, Orthophosphate	0.004	J	mg/l	0.005	0.001	1	-	06/13/18 07:57	121,4500P-E	UN
Sulfide	0.17		mg/l	0.10	0.10	1	06/14/18 19:30	06/15/18 03:22	121,4500S2-AD	CW
Total Organic Carbon	6.85		mg/l	2.50	0.570	5	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	618.		mg/l	12.5	2.10	25	-	06/14/18 23:19	44,300.0	AU
Sulfate	85.5		mg/l	25.0	4.00	25	-	06/14/18 23:19	44,300.0	AU



Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-06
Client ID: MW30-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 15:00
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	486.		mg CaCO3/L	2.00	NA	1	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	1800		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	0.571		mg/l	0.075	0.024	1	06/13/18 13:43	06/15/18 23:30	44,350.1	AT
Nitrogen, Nitrate	0.045	J	mg/l	0.10	0.033	1	-	06/13/18 18:39	44,353.2	MR
Nitrogen, Total Kjeldahl	1.04		mg/l	0.300	0.066	1	06/13/18 16:30	06/15/18 22:47	4,351.3/.1 (M)	AT
Phosphorus, Total	0.223		mg/l	0.010	0.003	1	06/13/18 09:45	06/13/18 15:12	121,4500P-E	SD
Phosphorus, Orthophosphate	0.219		mg/l	0.005	0.001	1	-	06/13/18 07:57	121,4500P-E	UN
Sulfide	1.8		mg/l	1.0	1.0	10	06/14/18 19:30	06/15/18 03:22	121,4500S2-AD	CW
Total Organic Carbon	6.17		mg/l	2.50	0.570	5	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	446.		mg/l	50.0	8.39	100	-	06/14/18 20:43	44,300.0	AU
Sulfate	384.		mg/l	100	16.0	100	-	06/14/18 20:43	44,300.0	AU



Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

SAMPLE RESULTS

Lab ID: L1821978-08
Client ID: MW21-061218
Sample Location: WATERLOO, NY

Date Collected: 06/12/18 17:10
Date Received: 06/12/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	12700		mg CaCO3/L	40.0	NA	20	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	18000		mg/l	20	6.1	2	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	11.6		mg/l	0.150	0.048	2	06/13/18 13:43	06/15/18 23:31	44,350.1	AT
Nitrogen, Nitrate	ND		mg/l	1.0	0.33	10	-	06/13/18 18:42	44,353.2	MR
Nitrogen, Total Kjeldahl	31.2		mg/l	0.600	0.132	2	06/13/18 16:30	06/15/18 22:48	4,351.3/.1 (M)	AT
Phosphorus, Total	19.5		mg/l	0.500	0.150	50	06/13/18 09:45	06/13/18 15:36	121,4500P-E	SD
Phosphorus, Orthophosphate	15.5		mg/l	0.125	0.025	25	-	06/13/18 07:58	121,4500P-E	UN
Sulfide	47.		mg/l	10	10.	100	06/14/18 19:30	06/15/18 03:23	121,4500S2-AD	CW
Total Organic Carbon	67.5		mg/l	20.0	4.56	40	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	336.		mg/l	50.0	8.39	100	-	06/14/18 20:55	44,300.0	AU
Sulfate	803.		mg/l	100	16.0	100	-	06/14/18 20:55	44,300.0	AU



Project Name: FORMER HAMPSHIRE CHEMICAL CO

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125361-1										
Phosphorus, Orthophosphate	ND		mg/l	0.005	0.001	1	-	06/13/18 07:53	121,4500P-E	UN
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125393-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	06/13/18 08:56	121,2320B	BR
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125402-1										
Nitrogen, Ammonia	0.024	J	mg/l	0.075	0.024	1	06/13/18 13:43	06/15/18 23:12	44,350.1	AT
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125404-1										
Phosphorus, Total	ND		mg/l	0.010	0.003	1	06/13/18 09:45	06/13/18 14:54	121,4500P-E	SD
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125405-1										
Solids, Total Dissolved	ND		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125494-1										
Total Organic Carbon	0.150	J	mg/l	0.500	0.114	1	-	06/13/18 10:43	121,5310C	AG
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125536-1										
Nitrogen, Total Kjeldahl	0.158	J	mg/l	0.300	0.022	1	06/13/18 16:30	06/15/18 22:22	4,351.3/1 (M)	AT
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1125621-1										
Nitrogen, Nitrate	ND		mg/l	0.10	0.033	1	-	06/13/18 17:39	44,353.2	MR
General Chemistry - Westborough Lab for sample(s): 01-02,04-06,08 Batch: WG1126118-1										
Sulfide	ND		mg/l	0.10	0.10	1	06/14/18 19:30	06/15/18 03:18	121,4500S2-AD	CW
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02,05-06,08 Batch: WG1126596-1										
Chloride	ND		mg/l	0.500	0.083	1	-	06/14/18 18:07	44,300.0	AU
Sulfate	ND		mg/l	1.00	0.160	1	-	06/14/18 18:07	44,300.0	AU
Anions by Ion Chromatography - Westborough Lab for sample(s): 04 Batch: WG1127176-1										
Chloride	ND		mg/l	0.500	0.083	1	-	06/18/18 00:58	44,300.0	JR
Sulfate	ND		mg/l	1.00	0.160	1	-	06/18/18 00:58	44,300.0	JR

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1821978

Project Number: 701970.01.SA

Report Date: 06/19/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125361-2								
Phosphorus, Orthophosphate	99		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125393-2								
Alkalinity, Total	101		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125402-2								
Nitrogen, Ammonia	94		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125404-2								
Phosphorus, Total	97		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125405-2								
Solids, Total Dissolved	94		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125494-2								
Total Organic Carbon	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125536-2								
Nitrogen, Total Kjeldahl	90		-		78-122	-		

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1125621-2					
Nitrogen, Nitrate	98	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 Batch: WG1126118-2					
Sulfide	104	-	75-125	-	
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02,05-06,08 Batch: WG1126596-2					
Chloride	102	-	90-110	-	
Sulfate	101	-	90-110	-	
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 04 Batch: WG1127176-2					
Chloride	104	-	90-110	-	
Sulfate	110	-	90-110	-	

Matrix Spike Analysis **Batch Quality Control**

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125361-4 QC Sample: L1821978-04 Client ID: MW11S-061218												
Phosphorus, Orthophosphate	0.123	0.5	0.606	97		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125393-4 QC Sample: L1821470-01 Client ID: MS Sample												
Alkalinity, Total	358.	100	450	92		-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125402-4 QC Sample: L1821948-05 Client ID: MS Sample												
Nitrogen, Ammonia	5.82	4	9.62	95		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125404-3 QC Sample: L1820740-09 Client ID: MS Sample												
Phosphorus, Total	0.019	0.5	0.530	102		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125494-4 QC Sample: L1821847-01 Client ID: MS Sample												
Total Organic Carbon	6.69	20	24.6	89		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125536-4 QC Sample: L1821948-05 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	9.16	8	13.5	54	Q	-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125621-4 QC Sample: L1821991-02 Client ID: MS Sample												
Nitrogen, Nitrate	0.034J	4	4.0	100		-	-		83-113	-		6
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1126118-4 QC Sample: L1800006-100 Client ID: MS Sample												
Sulfide	ND	0.55	ND	0	Q	-	-		70-130	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02,05-06,08 QC Batch ID: WG1126596-3 QC Sample: L1821978-05 Client ID: MW01-061218									
Chloride	618.	100	726	108	-	-	90-110	-	18
Sulfate	85.5	200	303	109	-	-	90-110	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 04 QC Batch ID: WG1127176-3 QC Sample: L1822232-02 Client ID: MS Sample									
Chloride	31.4	4	33.9	64	Q	-	90-110	-	18
Sulfate	7.91	8	15.9	100	-	-	90-110	-	20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821978
Report Date: 06/19/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125361-3 QC Sample: L1821889-03 Client ID: DUP Sample						
Phosphorus, Orthophosphate	5.46	5.54	mg/l	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125393-3 QC Sample: L1821470-01 Client ID: DUP Sample						
Alkalinity, Total	358.	360	mg CaCO3/L	1		10
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125402-3 QC Sample: L1821948-05 Client ID: DUP Sample						
Nitrogen, Ammonia	5.82	5.92	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125404-4 QC Sample: L1820740-09 Client ID: DUP Sample						
Phosphorus, Total	0.019	0.018	mg/l	5		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125405-3 QC Sample: L1821339-01 Client ID: DUP Sample						
Solids, Total Dissolved	320	320	mg/l	0		10
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125494-3 QC Sample: L1821847-01 Client ID: DUP Sample						
Total Organic Carbon	6.69	6.42	mg/l	4		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125536-3 QC Sample: L1821948-05 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	9.16	6.00	mg/l	42	Q	24

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1821978
Report Date: 06/19/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1125621-3 QC Sample: L1821991-02 Client ID: DUP Sample					
Nitrogen, Nitrate	0.034J	0.049J	mg/l	NC	6
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-06,08 QC Batch ID: WG1126118-3 QC Sample: L1800006-100 Client ID: DUP Sample					
Sulfide	ND	ND	mg/l	NC	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02,05-06,08 QC Batch ID: WG1126596-4 QC Sample: L1821978-05 Client ID: MW01-061218					
Chloride	618.	618	mg/l	0	18
Sulfate	85.5	87.0	mg/l	2	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 04 QC Batch ID: WG1127176-4 QC Sample: L1822232-02 Client ID: DUP Sample					
Chloride	31.4	31.4	mg/l	0	18
Sulfate	7.91	7.92	mg/l	0	20

Project Name: FORMER HAMPSHIRE CHEMICAL CORP**Lab Number:** L1821978**Project Number:** 701970.01.SA**Report Date:** 06/19/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

B Absent

C Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821978-01A	Vial HCl preserved	B	NA		3.8	Y	Absent		NYTCL-8260(14)
L1821978-01B	Vial HCl preserved	B	NA		3.8	Y	Absent		NYTCL-8260(14)
L1821978-01C	Vial HCl preserved	B	NA		3.8	Y	Absent		NYTCL-8260(14)
L1821978-01D	Vial H2SO4 preserved	B	NA		3.8	Y	Absent		TOC-5310(28)
L1821978-01E	Vial H2SO4 preserved	B	NA		3.8	Y	Absent		TOC-5310(28)
L1821978-01F	Vial H2SO4 preserved	B	NA		3.8	Y	Absent		TOC-5310(28)
L1821978-01G	Plastic 250ml unpreserved/No Headspace	B	NA		3.8	Y	Absent		ALK-T-2320(14)
L1821978-01H	Plastic 250ml unpreserved	B	7	7	3.8	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-01I	Plastic 250ml unpreserved	B	7	7	3.8	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-01J	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Absent		MN-6020S(180),CR-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821978-01K	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Absent		FE-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821978-01L	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	3.8	Y	Absent		SULFIDE-4500(7)
L1821978-01M	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	3.8	Y	Absent		SULFIDE-4500(7)
L1821978-01N	Plastic 500ml unpreserved	B	7	7	3.8	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-01O	Plastic 500ml H2SO4 preserved	B	<2	<2	3.8	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-01P	Plastic 500ml H2SO4 preserved	B	<2	<2	3.8	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-02A	Vial HCl preserved	B	NA		3.8	Y	Absent		NYTCL-8260(14)
L1821978-02B	Vial HCl preserved	B	NA		3.8	Y	Absent		NYTCL-8260(14)

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Serial_No: 06191820:38
Lab Number: L1821978
Report Date: 06/19/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821978-02C	Vial HCl preserved	B	NA		3.8	Y	Absent		NYTCL-8260(14)
L1821978-02D	Vial H2SO4 preserved	B	NA		3.8	Y	Absent		TOC-5310(28)
L1821978-02E	Vial H2SO4 preserved	B	NA		3.8	Y	Absent		TOC-5310(28)
L1821978-02F	Vial H2SO4 preserved	B	NA		3.8	Y	Absent		TOC-5310(28)
L1821978-02G	Plastic 250ml unpreserved/No Headspace	B	NA		3.8	Y	Absent		ALK-T-2320(14)
L1821978-02H	Plastic 250ml unpreserved	B	7	7	3.8	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-02I	Plastic 250ml unpreserved	B	7	7	3.8	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-02J	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Absent		MN-6020S(180),CR-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821978-02K	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Absent		FE-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821978-02L	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	3.8	Y	Absent		SULFIDE-4500(7)
L1821978-02M	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	3.8	Y	Absent		SULFIDE-4500(7)
L1821978-02N	Plastic 500ml unpreserved	B	7	7	3.8	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-02O	Plastic 500ml H2SO4 preserved	B	<2	<2	3.8	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-02P	Plastic 500ml H2SO4 preserved	B	<2	<2	3.8	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-03A	Vial HCl preserved	C	NA		2.1	Y	Absent		NYTCL-8260(14)
L1821978-03B	Vial HCl preserved	C	NA		2.1	Y	Absent		NYTCL-8260(14)
L1821978-03C	Vial HCl preserved	C	NA		2.1	Y	Absent		NYTCL-8260(14)
L1821978-03D	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		FE-6020T(180),CA-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),AL-6020T(180),MG-6020T(180)
L1821978-03E	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821978-03F	Amber 250ml unpreserved	C	7	7	2.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821978-03G	Amber 250ml unpreserved	C	7	7	2.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821978-03H	Amber 250ml unpreserved	C	7	7	2.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821978-03I	Amber 250ml unpreserved	C	7	7	2.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821978-04A	Vial HCl preserved	C	NA		2.1	Y	Absent		HOLD-8260(14)

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821978-04B	Vial HCl preserved	C	NA		2.1	Y	Absent		HOLD-8260(14)
L1821978-04C	Vial HCl preserved	C	NA		2.1	Y	Absent		HOLD-8260(14)
L1821978-04D	Vial H2SO4 preserved	C	NA		2.1	Y	Absent		TOC-5310(28)
L1821978-04E	Vial H2SO4 preserved	C	NA		2.1	Y	Absent		TOC-5310(28)
L1821978-04F	Vial H2SO4 preserved	C	NA		2.1	Y	Absent		TOC-5310(28)
L1821978-04G	Plastic 250ml unpreserved/No Headspace	C	NA		2.1	Y	Absent		ALK-T-2320(14)
L1821978-04H	Plastic 250ml unpreserved	C	7	7	2.1	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-04I	Plastic 250ml unpreserved	C	7	7	2.1	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-04J	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821978-04K	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		FE-6020T(180),CA-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821978-04L	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	2.1	Y	Absent		SULFIDE-4500(7)
L1821978-04M	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	2.1	Y	Absent		SULFIDE-4500(7)
L1821978-04N	Plastic 500ml unpreserved	C	7	7	2.1	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-04O	Plastic 500ml H2SO4 preserved	C	<2	<2	2.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-04P	Plastic 500ml H2SO4 preserved	C	<2	<2	2.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-05A	Vial unpreserved	A	NA		3.7	Y	Absent		NYTCL-8260(7)
L1821978-05B	Vial unpreserved	A	NA		3.7	Y	Absent		NYTCL-8260(7)
L1821978-05C	Vial unpreserved	A	NA		3.7	Y	Absent		NYTCL-8260(7)
L1821978-05D	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)
L1821978-05E	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)
L1821978-05F	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)
L1821978-05G	Plastic 250ml unpreserved/No Headspace	A	NA		3.7	Y	Absent		ALK-T-2320(14)
L1821978-05H	Plastic 250ml unpreserved	A	7	7	3.7	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-05I	Plastic 250ml unpreserved	A	7	7	3.7	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-05J	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		MN-6020S(180),CR-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821978-05K	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		FE-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821978-05L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	3.7	Y	Absent		SULFIDE-4500(7)
L1821978-05M	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	3.7	Y	Absent		SULFIDE-4500(7)
L1821978-05N	Plastic 500ml unpreserved	A	7	7	3.7	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-05O	Plastic 500ml H2SO4 preserved	A	<2	<2	3.7	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-05P	Plastic 500ml H2SO4 preserved	A	<2	<2	3.7	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-06D	Vial unpreserved	C	NA		2.1	Y	Absent		TOC-5310(28)
L1821978-06E	Vial H2SO4 preserved	C	NA		2.1	Y	Absent		TOC-5310(28)
L1821978-06F	Vial H2SO4 preserved	C	NA		2.1	Y	Absent		TOC-5310(28)
L1821978-06G	Plastic 250ml unpreserved/No Headspace	C	NA		2.1	Y	Absent		ALK-T-2320(14)
L1821978-06H	Plastic 250ml unpreserved	C	7	7	2.1	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-06I	Plastic 250ml unpreserved	C	7	7	2.1	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-06J	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821978-06K	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		FE-6020T(180),CA-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821978-06L	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	2.1	Y	Absent		SULFIDE-4500(7)
L1821978-06M	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	2.1	Y	Absent		SULFIDE-4500(7)
L1821978-06N	Plastic 500ml unpreserved	C	7	7	2.1	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-06O	Plastic 500ml H2SO4 preserved	C	<2	<2	2.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-06P	Plastic 500ml H2SO4 preserved	A	<2	<2	3.7	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-07A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L1821978-07B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L1821978-08D	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)
L1821978-08E	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)
L1821978-08F	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821978-08G	Plastic 250ml unpreserved/No Headspace	A	NA		3.7	Y	Absent		ALK-T-2320(14)
L1821978-08H	Plastic 250ml unpreserved	A	10	10	3.7	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-08I	Plastic 250ml unpreserved	A	10	10	3.7	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-08J	Plastic 250ml HNO3 preserved	A	10	7	3.7	N	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821978-08K	Plastic 250ml HNO3 preserved	A	10	7	3.7	N	Absent		FE-6020T(180),CA-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821978-08L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	3.7	Y	Absent		SULFIDE-4500(7)
L1821978-08M	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	3.7	Y	Absent		SULFIDE-4500(7)
L1821978-08N	Plastic 500ml unpreserved	A	10	10	3.7	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821978-08O	Plastic 500ml H2SO4 preserved	A	10	7	3.7	N	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821978-08P	Plastic 500ml H2SO4 preserved	A	10	7	3.7	N	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)

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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

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Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 11

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Certification Information**The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 300:** DW: Bromide**EPA 6860:** SCM: Perchlorate**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,****SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.****EPA 624:** Volatile Halocarbons & Aromatics,**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

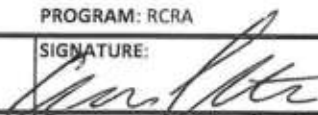
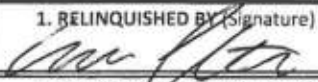
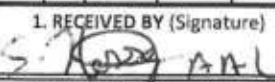
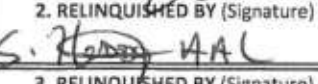
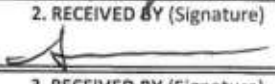
JACOBS**Chain of Custody Record**

CH2M COC (YYYYMMDD-##): 20180612-01

LABORATORY: Alpha Analytical, 8 Walkup Dr, Westborough, MA 01581
(800) 624-9220

LABORATORY CONTACT: Ashaley Kane

21821978

PROJECT: Former Hampshire Chemical Corp., Waterloo, NY				PROJECT MANAGER & REPORT TO #1: David Newman 299 Madison Ave., Morristown, NJ 07960 862.242.7061, david.newman@jacobs.com				PROJECT CONTACT & REPORT TO #2: Shane Lowe 501 N Broadway, St. Louis, MO 63102 314.335.5075, shane.lowe@jacobs.com																
PURCHASE ORDER # 703077		DATA PACKAGE: Level IV		ANALYSES REQUESTED																				
TURNAROUND TIME: Standard		PROGRAM: RCRA		PRESERVATIVE CODES (H=HCl, N=HNO ₃ , S=H ₂ SO ₄ , Zn=zinc acetate, B=NaOH, --=none)																				
SAMPLER(s): C. Lettich, A. Stapleton		SIGNATURE: 		H	N	N	N	N	--	--	S	--	--	Z,B	N	--	--							
SAMPLE IDENTIFICATION	GRAB/COMPOSITE	DATE	TIME	MATRIX	# CONTAINERS	VOCs + TICs (8260C)	Total Metals (6010C)(Al, As, Ca, Cr, Fe, K, Mg, Mn, Na)	Dissolved Metals (6010C)(Al, As, Cr, Fe, Mn) Field Filtered	Total Metals (6010C)(Al, As, Ca, Fe, K, Mg, Mn, Na)	Dissolved Metals (6010C)(Al, As, Fe, Mn) Field Filtered	Anions (300.0) (Cl ⁻ , SO ₄ ²⁻)	Nitrate (353.2)	Alkalinity (310.2)	Total Phosphorous (365.4)	TOC (SM5310)	Ammonia (350.1)	TKN (351.2)	Orthophosphate(SM4500PE) Field Filtered	TDS (SM2540)	Total Sulfide (SM 4500)	Silica (200.7)	SVOCs + TICs (8270C)	PAHs (8270D SIM)	Additional Requirements
MW02-061218	G	6/12/2018	10:10	GW	16	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x			CAUTION! See note #2
Dup-GW-061218	G	6/12/2018	10:15	GW	16	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x			CAUTION! See note #2
MW09R-061218	G	6/12/2018	9:50	GW	9	x			x	x												x	x	
MW11S-061218	G	6/12/2018	11:35	GW	13				x	x	x	x	x	x	x	x	x	x	x	x	x			
MW01-061218	G	6/12/2018	15:10	GW	16	x	x	x			x	x	x	x	x	x	x	x	x	x	x			See note #1
MW30-061218	G	6/12/2018	15:00	GW	13				x	x	x	x	x	x	x	x	x	x	x	x	x			See note #3
TB-061218	--	6/12/2018	8:00	GW	2	x																		
MW21-061218	G	6/12/18	17:10	GW	13				x	x	x	x	x	x	x	x	x	x	x	x	x			See note #2. Strong reaction to H ₂ SO ₄
Use caution when opening sample MW02-061218. See Note 2																								
1. RELINQUISHED BY (Signature)		DATE	TIME	1. RECEIVED BY (Signature)		DATE	TIME	ADDITIONAL REMARKS/INSTRUCTIONS:																
		6/12/2018	17:00			6/12/18	17:10	1) VOCs collected in unpreserved vials																
2. RELINQUISHED BY (Signature)		DATE	TIME	2. RECEIVED BY (Signature)		DATE	TIME	2) While filling containers measured high concentration of hydrogen sulfide within the sample container headspace.																
		6/12/18	17:10			6/12/18	0115	3) One TOC vial is unpreserved																
3. RELINQUISHED BY (Signature)		DATE	TIME	3. RECEIVED BY (Signature)		DATE	TIME																	
