



## ANALYTICAL REPORT

Lab Number:	L1820793
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:	06/12/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

---

Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1820793-01	MW20-060418	WATER	WATERLOO, NY	06/04/18 15:20	06/05/18
L1820793-02	DUP-GW-060418	WATER	WATERLOO, NY	06/04/18 08:00	06/05/18
L1820793-03	MW36-060518	WATER	WATERLOO, NY	06/05/18 10:10	06/05/18
L1820793-04	MW35-060518	WATER	WATERLOO, NY	06/05/18 12:15	06/05/18
L1820793-05	MW37-060518	WATER	WATERLOO, NY	06/05/18 15:20	06/05/18
L1820793-06	DUP-GW-060518	WATER	WATERLOO, NY	06/05/18 08:05	06/05/18
L1820793-07	MW06-060418	WATER	WATERLOO, NY	06/04/18 16:50	06/05/18
L1820793-08	TB-060518	WATER	WATERLOO, NY	06/05/18 08:10	06/05/18
L1820793-09	SV05-060518	WATER	WATERLOO, NY	06/05/18 15:30	06/05/18
L1820793-10	MW33-060518	WATER	WATERLOO, NY	06/05/18 15:00	06/05/18
L1820793-11	MW03-060518	WATER	WATERLOO, NY	06/05/18 11:00	06/05/18
L1820793-12	TB-060518-2	WATER	WATERLOO, NY	06/05/18 08:00	06/05/18

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### 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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### 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.

#### Volatile Organics

L1820793-01, -02, -07 through -12 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.

L1820793-11: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.

L1820793-11: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

The initial calibration, associated with L1820793-01, -02, -07, -08, -11, and -12, did not meet the method required minimum response factor for the calibration standards for bromodichloromethane, cis-1,3-dichloropropene, bromomethane, chloroethane, trichloroethene, dibromomethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, bromochloromethane, and 1,4-dioxane.

The continuing calibration, associated with L1820793-01, -02, -07, -08, -11, and -12, did not meet the method required minimum response factor for 1,1,2,2-tetrachloroethane, bromomethane, chloroethane, trichloroethene, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, and 1,4-dioxane.

The WG1123598-2 continuing calibration verification standard has the percent deviation for 1,2,3-trichlorobenzene (34%D) and 1,4-dioxane (39%D) above the 20% CCV criteria, but within overall method allowances.

The initial calibration, associated with L1820793-09 and -10, did not meet the method required minimum response factor for the calibration standards for bromodichloromethane, cis-1,3-dichloropropene, bromomethane, chloroethane, trichloroethene, dibromomethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, bromochloromethane, and 1,4-dioxane.

The continuing calibration, associated with L1820793-09 and -10, did not meet the method required minimum response factor for bromomethane, chloroethane, trichloroethene, dibromomethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, bromochloromethane, and 1,4-dioxane.

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### **Case Narrative (continued)**

The WG1123598-2 continuing calibration verification standard has the percent deviation for bromomethane (49%D) above the 20% CCV criteria, but within overall method allowances.

#### Total Metals

The WG1123519-3/-4 MS/MSD recoveries for calcium (0%/0%), magnesium (156%/161%), and sodium (MS 150%), performed on L1820793-05, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1123522-3/-4 MS/MSD recoveries for silica (154%/150%), performed on L1820793-05, do not apply because the sample concentration is greater than four times the spike amount added.

#### Phosphorus, Orthophosphate

L1820793-10 and -11: The sample has an elevated detection limit due to the dilution required by the sample matrix.

#### Nitrogen, Ammonia

The WG1123045-4 MS recovery (44%), performed on L1820793-03, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken.

#### Sulfide

The WG1124169-4 MS recovery (61%), performed on L1820793-04, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken.

#### Anions by Ion Chromatography

The WG1124474-3 MS recoveries, performed on L1820793-10, are outside the acceptance criteria for chloride (134%) and sulfate (111%); however, the associated LCS recovery is within criteria. No further action was taken.

#### Nitrogen, Nitrate

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

#### Case Narrative (continued)

The WG1123192-3 Laboratory Duplicate RPD (7%), performed on L1820793-05, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

Nitrogen, Total Kjeldahl

The WG1123719-3 Laboratory Duplicate RPD (33%), performed on L1820793-03, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 06/12/18

# ORGANICS

# VOLATILES



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
 Client ID: MW20-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/07/18 15:04  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-01	Date Collected:	06/04/18 15:20
Client ID:	MW20-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
 Client ID: MW20-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	5.91	J	ug/l	1
Unknown	5.91	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-02  
 Client ID: DUP-GW-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 08:00  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/07/18 15:29  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-02	Date Collected:	06/04/18 08:00
Client ID:	DUP-GW-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-02	Date Collected:	06/04/18 08:00
Client ID:	DUP-GW-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	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	4.45	J	ug/l	1
Unknown	4.45	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-07  
 Client ID: MW06-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 16:50  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/07/18 15:55  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-07	Date Collected:	06/04/18 16:50
Client ID:	MW06-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-07  
 Client ID: MW06-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 16:50  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	3.75	J	ug/l	1
Unknown	3.75	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	96		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-08  
 Client ID: TB-060518  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 08:10  
 Date Received: 06/05/18  
 Field Prep: None

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/07/18 16:20  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-08	Date Collected:	06/05/18 08:10
Client ID:	TB-060518	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-08	Date Collected:	06/05/18 08:10
Client ID:	TB-060518	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	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

Total TIC Compounds	2.75	J	ug/l	1
Unknown	2.75	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-09  
 Client ID: SV05-060518  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:30  
 Date Received: 06/05/18  
 Field Prep: None

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/08/18 01:36  
 Analyst: BD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	1.3		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	0.32	J	ug/l	0.50	0.16	1
Toluene	4.8		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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-09	Date Collected:	06/05/18 15:30
Client ID:	SV05-060518	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.18	J	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	1.3	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.3	J	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	5.5		ug/l	5.0	1.5	1
Carbon disulfide	5.2		ug/l	5.0	1.0	1
2-Butanone	4.4	J	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	3.2	J	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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-09  
 Client ID: SV05-060518  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:30  
 Date Received: 06/05/18  
 Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	154	J	ug/l	1
Unknown	5.00	J	ug/l	1
2-Propanethiol	8.12	NJ	ug/l	1
Unknown	7.45	J	ug/l	1
4-Heptanone, 2-methyl-	11.1	NJ	ug/l	1
Unknown	4.41	J	ug/l	1
Unknown	6.94	J	ug/l	1
2-Pentanone, 3-methyl-	18.1	NJ	ug/l	1
2-Heptanone, 4,6-dimethyl-	6.21	NJ	ug/l	1
2-Pantanethiol, 4-methyl-	64.1	NJ	ug/l	1
3-Pantanone, 2-methyl-	22.9	NJ	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-10  
 Client ID: MW33-060518  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:00  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/08/18 02:01  
 Analyst: BD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	1.3	J	ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.98	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	1.0		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	2.0	J	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	2.7		ug/l	0.50	0.16	1
Toluene	9.3		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	0.17	J	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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-10	Date Collected:	06/05/18 15:00
Client ID:	MW33-060518	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	2.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	2.2	J	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	14		ug/l	5.0	1.5	1
Carbon disulfide	5.2		ug/l	5.0	1.0	1
2-Butanone	2.5	J	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	1.8	J	ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-10  
 Client ID: MW33-060518  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:00  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	109	J	ug/l	1
Unknown	4.66	J	ug/l	1
Benzenethiol	4.32	NJ	ug/l	1
Unknown	6.72	J	ug/l	1
2-Pantanethiol, 4-methyl-	35.0	NJ	ug/l	1
Unknown	18.2	J	ug/l	1
Unknown	16.5	J	ug/l	1
Unknown	5.40	J	ug/l	1
Unknown	6.51	J	ug/l	1
Methanethiol	3.93	NJ	ug/l	1
4-Methyl-2-pentanone	8.12	NJ	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-11	D	Date Collected:	06/05/18 11:00
Client ID:	MW03-060518		Date Received:	06/05/18
Sample Location:	WATERLOO, NY		Field Prep:	Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/07/18 18:00  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	ND		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.4	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	ND		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	ND		ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
1,3-Dichloropropene, Total	ND		ug/l	12	3.6	25
1,1-Dichloropropene	ND		ug/l	62	18.	25
Bromoform	ND		ug/l	50	16.	25
1,1,2,2-Tetrachloroethane	ND		ug/l	12	4.2	25
Benzene	ND		ug/l	12	4.0	25
Toluene	48	J	ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	ND		ug/l	25	1.8	25
Chloroethane	ND		ug/l	62	18.	25
1,1-Dichloroethene	ND		ug/l	12	4.2	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-11	D	Date Collected:	06/05/18 11:00
Client ID:	MW03-060518		Date Received:	06/05/18
Sample Location:	WATERLOO, NY		Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	18	J	ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	18	J	ug/l	62	18.	25
cis-1,2-Dichloroethene	ND		ug/l	62	18.	25
1,2-Dichloroethene, Total	ND		ug/l	62	18.	25
Dibromomethane	ND		ug/l	120	25.	25
1,2,3-Trichloropropane	ND		ug/l	62	18.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	ND		ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	48	J	ug/l	120	48.	25
Vinyl acetate	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	1200		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
2,2-Dichloropropane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,3-Dichloropropane	ND		ug/l	62	18.	25
1,1,1,2-Tetrachloroethane	ND		ug/l	62	18.	25
Bromobenzene	ND		ug/l	62	18.	25
n-Butylbenzene	ND		ug/l	62	18.	25
sec-Butylbenzene	ND		ug/l	62	18.	25
tert-Butylbenzene	ND		ug/l	62	18.	25
o-Chlorotoluene	ND		ug/l	62	18.	25
p-Chlorotoluene	ND		ug/l	62	18.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Hexachlorobutadiene	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
p-Isopropyltoluene	ND		ug/l	62	18.	25
Naphthalene	ND		ug/l	62	18.	25
n-Propylbenzene	ND		ug/l	62	18.	25



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-11	D	Date Collected:	06/05/18 11:00
Client ID:	MW03-060518		Date Received:	06/05/18
Sample Location:	WATERLOO, NY		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	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
1,3,5-Trimethylbenzene	ND		ug/l	62	18.	25
1,2,4-Trimethylbenzene	ND		ug/l	62	18.	25
1,4-Dioxane	ND		ug/l	6200	1500	25

## Tentatively Identified Compounds

Total TIC Compounds	3730	J	ug/l	25
Unknown	136	J	ug/l	25
Unknown	132	J	ug/l	25
Unknown	86.5	J	ug/l	25
Unknown	372	J	ug/l	25
2-Propanethiol	814	NJ	ug/l	25
Unknown	906	J	ug/l	25
Unknown	69.2	J	ug/l	25
Unknown	916	J	ug/l	25
Unknown	126	J	ug/l	25
Unknown	176	J	ug/l	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-12  
 Client ID: TB-060518-2  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 08:00  
 Date Received: 06/05/18  
 Field Prep: None

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/07/18 16:45  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-12	Date Collected:	06/05/18 08:00
Client ID:	TB-060518-2	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-12	Date Collected:	06/05/18 08:00
Client ID:	TB-060518-2	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	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

Total TIC Compounds	2.00	J	ug/l	1
Unknown	2.00	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/07/18 09:38  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,07-08,11-12				Batch:	
WG1123598-5					
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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/07/18 09:38  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,07-08,11-12				Batch:	
WG1123598-5					
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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/07/18 09:38  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,07-08,11-12				Batch:	
WG1123598-5					
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	0.79	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	89		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	93		70-130



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/07/18 21:50  
Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-10 Batch: WG1123959-5					
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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/07/18 21:50  
Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-10				Batch:	WG1123959-5
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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 06/07/18 21:50  
Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-10				Batch:	WG1123959-5
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	ND		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

Total TIC Compounds	1.80	J	ug/l
Unknown	1.80	J	ug/l

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		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:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 Batch: WG1123598-3 WG1123598-4								
Methylene chloride	96		96		70-130	0		20
1,1-Dichloroethane	98		95		70-130	3		20
Chloroform	99		94		70-130	5		20
Carbon tetrachloride	96		91		63-132	5		20
1,2-Dichloropropane	100		98		70-130	2		20
Dibromochloromethane	83		80		63-130	4		20
1,1,2-Trichloroethane	96		94		70-130	2		20
Tetrachloroethene	96		92		70-130	4		20
Chlorobenzene	98		95		75-130	3		20
Trichlorofluoromethane	92		82		62-150	11		20
1,2-Dichloroethane	93		92		70-130	1		20
1,1,1-Trichloroethane	96		92		67-130	4		20
Bromodichloromethane	96		94		67-130	2		20
trans-1,3-Dichloropropene	87		84		70-130	4		20
cis-1,3-Dichloropropene	100		99		70-130	1		20
1,1-Dichloropropene	96		93		70-130	3		20
Bromoform	78		75		54-136	4		20
1,1,2,2-Tetrachloroethane	93		91		67-130	2		20
Benzene	100		97		70-130	3		20
Toluene	98		94		70-130	4		20
Ethylbenzene	98		94		70-130	4		20
Chloromethane	100		97		64-130	3		20
Bromomethane	120		110		39-139	9		20

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 Batch: WG1123598-3 WG1123598-4								
Vinyl chloride	98		92		55-140	6		20
Chloroethane	120		100		55-138	18		20
1,1-Dichloroethene	95		91		61-145	4		20
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	96		91		70-130	5		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	100		96		70-130	4		20
Methyl tert butyl ether	96		94		63-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Dibromomethane	93		93		70-130	0		20
1,2,3-Trichloropropane	91		88		64-130	3		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	86		81		36-147	6		20
Acetone	84		86		58-148	2		20
Carbon disulfide	98		94		51-130	4		20
2-Butanone	92		84		63-138	9		20
Vinyl acetate	96		94		70-130	2		20
4-Methyl-2-pentanone	89		87		59-130	2		20
2-Hexanone	86		86		57-130	0		20
Bromochloromethane	100		97		70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 Batch: WG1123598-3 WG1123598-4								
2,2-Dichloropropane	100		99		63-133	1		20
1,2-Dibromoethane	95		92		70-130	3		20
1,3-Dichloropropane	95		93		70-130	2		20
1,1,1,2-Tetrachloroethane	98		96		64-130	2		20
Bromobenzene	100		97		70-130	3		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		97		70-130	3		20
tert-Butylbenzene	100		99		70-130	1		20
o-Chlorotoluene	100		98		70-130	2		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	72		72		41-144	0		20
Hexachlorobutadiene	120		110		63-130	9		20
Isopropylbenzene	100		99		70-130	1		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	86		89		70-130	3		20
n-Propylbenzene	100		97		69-130	3		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		99		64-130	1		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
1,4-Dioxane	106		102		56-162	4		20

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 Batch: WG1123598-3 WG1123598-4								
<b>Surrogate</b>			<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>		<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4			93		93			70-130
Toluene-d8			100		99			70-130
4-Bromofluorobenzene			102		102			70-130
Dibromofluoromethane			96		97			70-130

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-10 Batch: WG1123959-3 WG1123959-4								
Methylene chloride	93		96		70-130	3		20
1,1-Dichloroethane	93		98		70-130	5		20
Chloroform	94		98		70-130	4		20
Carbon tetrachloride	93		100		63-132	7		20
1,2-Dichloropropane	96		100		70-130	4		20
Dibromochloromethane	82		84		63-130	2		20
1,1,2-Trichloroethane	96		98		70-130	2		20
Tetrachloroethene	91		96		70-130	5		20
Chlorobenzene	92		96		75-130	4		20
Trichlorofluoromethane	88		95		62-150	8		20
1,2-Dichloroethane	91		94		70-130	3		20
1,1,1-Trichloroethane	92		99		67-130	7		20
Bromodichloromethane	94		99		67-130	5		20
trans-1,3-Dichloropropene	84		86		70-130	2		20
cis-1,3-Dichloropropene	96		100		70-130	4		20
1,1-Dichloropropene	93		99		70-130	6		20
Bromoform	78		78		54-136	0		20
1,1,2,2-Tetrachloroethane	93		96		67-130	3		20
Benzene	94		100		70-130	6		20
Toluene	92		96		70-130	4		20
Ethylbenzene	92		96		70-130	4		20
Chloromethane	92		93		64-130	1		20
Bromomethane	64		70		39-139	9		20

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-10 Batch: WG1123959-3 WG1123959-4								
Vinyl chloride	91		97		55-140	6		20
Chloroethane	94		98		55-138	4		20
1,1-Dichloroethene	92		99		61-145	7		20
trans-1,2-Dichloroethene	93		100		70-130	7		20
Trichloroethene	88		96		70-130	9		20
1,2-Dichlorobenzene	94		98		70-130	4		20
1,3-Dichlorobenzene	94		98		70-130	4		20
1,4-Dichlorobenzene	94		98		70-130	4		20
Methyl tert butyl ether	96		98		63-130	2		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	94		99		70-130	5		20
Dibromomethane	94		96		70-130	2		20
1,2,3-Trichloropropane	87		95		64-130	9		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	86		92		36-147	7		20
Acetone	96		93		58-148	3		20
Carbon disulfide	100		110		51-130	10		20
2-Butanone	98		98		63-138	0		20
Vinyl acetate	98		100		70-130	2		20
4-Methyl-2-pentanone	87		89		59-130	2		20
2-Hexanone	88		89		57-130	1		20
Bromochloromethane	95		100		70-130	5		20

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-10 Batch: WG1123959-3 WG1123959-4								
2,2-Dichloropropane	95		100		63-133	5		20
1,2-Dibromoethane	94		97		70-130	3		20
1,3-Dichloropropane	93		95		70-130	2		20
1,1,1,2-Tetrachloroethane	93		97		64-130	4		20
Bromobenzene	93		97		70-130	4		20
n-Butylbenzene	99		100		53-136	1		20
sec-Butylbenzene	97		100		70-130	3		20
tert-Butylbenzene	97		100		70-130	3		20
o-Chlorotoluene	94		94		70-130	0		20
p-Chlorotoluene	95		100		70-130	5		20
1,2-Dibromo-3-chloropropane	83		81		41-144	2		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	95		100		70-130	5		20
p-Isopropyltoluene	99		100		70-130	1		20
Naphthalene	92		91		70-130	1		20
n-Propylbenzene	94		99		69-130	5		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	96		100		64-130	4		20
1,2,4-Trimethylbenzene	97		100		70-130	3		20
1,4-Dioxane	118		116		56-162	2		20

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

<b>Parameter</b>	<i>LCS</i> %Recovery	Qual	<i>LCSD</i> %Recovery	Qual	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	Qual	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-10 Batch: WG1123959-3 WG1123959-4								
<b>Surrogate</b>			<i>LCS</i> %Recovery	Qual	<i>LCSD</i> %Recovery	Qual		<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4			95		95			70-130
Toluene-d8			99		98			70-130
4-Bromofluorobenzene			102		101			70-130
Dibromofluoromethane			98		99			70-130

# Matrix Spike Analysis

*Batch Quality Control*

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual	Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 QC Batch ID: WG1123598-6 WG1123598-7 QC Sample: L1820286-01 Client ID: MS Sample												
Methylene chloride	ND	10	10	100		10	100		70-130	0		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	11	110		11	110		70-130	0		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	11	110		11	110		70-130	0		20
Dibromochloromethane	ND	10	8.9	89		8.7	87		63-130	2		20
1,1,2-Trichloroethane	ND	10	10	100		10	100		70-130	0		20
Tetrachloroethene	ND	10	9.9	99		10	100		70-130	1		20
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
Trichlorofluoromethane	ND	10	11	110		11	110		62-150	0		20
1,2-Dichloroethane	ND	10	10	100		10	100		70-130	0		20
1,1,1-Trichloroethane	ND	10	11	110		11	110		67-130	0		20
Bromodichloromethane	ND	10	11	110		11	110		67-130	0		20
trans-1,3-Dichloropropene	ND	10	8.9	89		8.7	87		70-130	2		20
cis-1,3-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
1,1-Dichloropropene	ND	10	10	100		11	110		70-130	10		20
Bromoform	ND	10	8.3	83		8.1	81		54-136	2		20
1,1,2,2-Tetrachloroethane	ND	10	10	100		9.6	96		67-130	4		20
Benzene	ND	10	11	110		11	110		70-130	0		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	10	100		10	100		70-130	0		20
Chloromethane	ND	10	12	120		12	120		64-130	0		20
Bromomethane	ND	10	4.3	43		5.2	52		39-139	19		20

# Matrix Spike Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual	Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 QC Batch ID: WG1123598-6 WG1123598-7 QC Sample: L1820286-01												
Client ID: MS Sample												
Vinyl chloride	ND	10	11	110		12	120		55-140	9		20
Chloroethane	ND	10	12	120		12	120		55-138	0		20
1,1-Dichloroethene	ND	10	11	110		11	110		61-145	0		20
trans-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Trichloroethene	ND	10	10	100		10	100		70-130	0		20
1,2-Dichlorobenzene	ND	10	9.8	98		10	100		70-130	2		20
1,3-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dichlorobenzene	ND	10	9.8	98		10	100		70-130	2		20
Methyl tert butyl ether	ND	10	10	100		10	100		63-130	0		20
p/m-Xylene	ND	20	21	105		21	105		70-130	0		20
o-Xylene	ND	20	21	105		22	110		70-130	5		20
cis-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Dibromomethane	ND	10	10	100		10	100		70-130	0		20
1,2,3-Trichloropropane	ND	10	11	110		9.6	96		64-130	14		20
Styrene	ND	20	21	105		22	110		70-130	5		20
Dichlorodifluoromethane	ND	10	10	100		10	100		36-147	0		20
Acetone	ND	10	10	100		10	100		58-148	0		20
Carbon disulfide	ND	10	12	120		12	120		51-130	0		20
2-Butanone	ND	10	9.7	97		9.3	93		63-138	4		20
Vinyl acetate	ND	10	10	100		9.7	97		70-130	3		20
4-Methyl-2-pentanone	ND	10	9.2	92		8.5	85		59-130	8		20
2-Hexanone	ND	10	8.5	85		8.3	83		57-130	2		20
Bromochloromethane	ND	10	11	110		10	100		70-130	10		20

# Matrix Spike Analysis

*Batch Quality Control*

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual	Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 QC Batch ID: WG1123598-6 WG1123598-7 QC Sample: L1820286-01												
Client ID: MS Sample												
2,2-Dichloropropane	ND	10	10	100		10	100		63-133	0		20
1,2-Dibromoethane	ND	10	10	100		9.8	98		70-130	2		20
1,3-Dichloropropane	ND	10	10	100		9.9	99		70-130	1		20
1,1,1,2-Tetrachloroethane	ND	10	10	100		10	100		64-130	0		20
Bromobenzene	ND	10	9.8	98		10	100		70-130	2		20
n-Butylbenzene	ND	10	10	100		11	110		53-136	10		20
sec-Butylbenzene	ND	10	10	100		11	110		70-130	10		20
tert-Butylbenzene	ND	10	10	100		11	110		70-130	10		20
o-Chlorotoluene	ND	10	10	100		10	100		70-130	0		20
p-Chlorotoluene	ND	10	10	100		10	100		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	7.7	77		7.4	74		41-144	4		20
Hexachlorobutadiene	ND	10	9.4	94		10	100		63-130	6		20
Isopropylbenzene	ND	10	10	100		11	110		70-130	10		20
p-Isopropyltoluene	ND	10	10	100		11	110		70-130	10		20
Naphthalene	ND	10	7.7	77		7.8	78		70-130	1		20
n-Propylbenzene	ND	10	10	100		10	100		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	8.9	89		9.1	91		70-130	2		20
1,2,4-Trichlorobenzene	ND	10	9.2	92		9.6	96		70-130	4		20
1,3,5-Trimethylbenzene	ND	10	10	100		11	110		64-130	10		20
1,2,4-Trimethylbenzene	ND	10	10	100		11	110		70-130	10		20
1,4-Dioxane	ND	500	460	92		550	110		56-162	18		20

**Matrix Spike Analysis**  
*Batch Quality Control*

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD RPD	RPD Qual	RPD Limits
-----------	---------------	----------	----------	--------------	------	-----------	---------------	----------	-----------------	---------	----------	------------

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07-08,11-12 QC Batch ID: WG1123598-6 WG1123598-7 QC Sample: L1820286-01  
Client ID: MS Sample

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		93		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	100		99		70-130
Toluene-d8	98		99		70-130

# **SEMIVOLATILES**



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
 Client ID: MW20-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 06/12/18 15:02  
 Analyst: CB

Extraction Method: EPA 3510C  
 Extraction Date: 06/10/18 08:11

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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
 Client ID: MW20-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	28.7	J	ug/l	1
Unknown Alkane	11.5	J	ug/l	1
Unknown Alkane	4.80	J	ug/l	1
Unknown	12.4	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	53		10-120
4-Terphenyl-d14	82		41-149



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
 Client ID: MW20-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 06/11/18 15:29  
 Analyst: KL

Extraction Method: EPA 3510C  
 Extraction Date: 06/10/18 11:33

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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
 Client ID: MW20-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	69		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-02  
 Client ID: DUP-GW-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 08:00  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 06/12/18 15:30  
 Analyst: CB

Extraction Method: EPA 3510C  
 Extraction Date: 06/10/18 08:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	3.0	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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-02	Date Collected:	06/04/18 08:00
Client ID:	DUP-GW-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	26.9	J	ug/l	1
Aldol Condensates	14.6	J	ug/l	1
Unknown	2.29	J	ug/l	1
Unknown Alkane	8.22	J	ug/l	1
Unknown	1.74	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	79		41-149



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-02  
 Client ID: DUP-GW-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 08:00  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 06/11/18 15:55  
 Analyst: KL

Extraction Method: EPA 3510C  
 Extraction Date: 06/10/18 11:33

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	ND	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	ND	ug/l	0.10	0.02	1	
Dibeno(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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-02	Date Collected:	06/04/18 08:00
Client ID:	DUP-GW-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
2-Fluorophenol			62		21-120	
Phenol-d6			55		10-120	
Nitrobenzene-d5			73		23-120	
2-Fluorobiphenyl			71		15-120	
2,4,6-Tribromophenol			87		10-120	
4-Terphenyl-d14			71		41-149	

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID:	L1820793-07	Date Collected:	06/04/18 16:50
Client ID:	MW06-060418	Date Received:	06/05/18
Sample Location:	WATERLOO, NY	Field Prep:	Refer to COC

Sample Depth:

Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D	Extraction Date:	06/10/18 08:11
Analytical Date:	06/12/18 15:58		

Analyst: CB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	2.9	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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-07  
 Client ID: MW06-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 16:50  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 06/11/18 16:22  
 Analyst: KL

Extraction Method: EPA 3510C  
 Extraction Date: 06/10/18 11:33

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	0.03	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.05	J	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	0.02	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.02	J	ug/l	0.10	0.01	1
Phenanthrene	0.08	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	0.03	J	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

Lab Number: L1820793

Project Number: 701970.01.SA

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-07  
 Client ID: MW06-060418  
 Sample Location: WATERLOO, NY

Date Collected: 06/04/18 16:50  
 Date Received: 06/05/18  
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
2-Fluorophenol			57		21-120	
Phenol-d6			49		10-120	
Nitrobenzene-d5			68		23-120	
2-Fluorobiphenyl			66		15-120	
2,4,6-Tribromophenol			83		10-120	
4-Terphenyl-d14			68		41-149	





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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
Analytical Date: 06/12/18 12:42  
Analyst: CB

Extraction Method: EPA 3510C  
Extraction Date: 06/10/18 08:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,07 Batch: WG1124379-1					
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	
Pentachlorophenol	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	21.1	J	ug/l
Unknown Alkane	3.42	J	ug/l
Unknown Alkane	11.2	J	ug/l
Aldol Condensates	6.47	J	ug/l

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### **Method Blank Analysis**

#### **Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 06/12/18 12:42  
Analyst: CB

Extraction Method: EPA 3510C  
Extraction Date: 06/10/18 08:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,07 Batch: WG1124379-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	53		10-120
4-Terphenyl-d14	77		41-149

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM  
Analytical Date: 06/11/18 13:19  
Analyst: KL

Extraction Method: EPA 3510C  
Extraction Date: 06/10/18 11:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02,07				Batch:	
WG1124380-1					
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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM  
Analytical Date: 06/11/18 13:19  
Analyst: KL

Extraction Method: EPA 3510C  
Extraction Date: 06/10/18 11:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02,07 Batch: WG1124380-1					

Surrogate	%Recovery	Qualifier	Acceptance
			Criteria
2-Fluorophenol	55		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	61		41-149







# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
-----------	------------------	------	-------------------	------	---------------------	-----	------	---------------

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07 Batch: WG1124379-2 WG1124379-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	52		57		21-120
Phenol-d6	44		50		10-120
Nitrobenzene-d5	61		69		23-120
2-Fluorobiphenyl	59		66		15-120
2,4,6-Tribromophenol	65		77		10-120
4-Terphenyl-d14	61		69		41-149

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02,07 Batch: WG1124380-2 WG1124380-3								
Acenaphthene	86		87		40-140	1		40
2-Chloronaphthalene	78		78		40-140	0		40
Fluoranthene	83		85		40-140	2		40
Hexachlorobutadiene	73		74		40-140	1		40
Naphthalene	76		76		40-140	0		40
Benzo(a)anthracene	89		91		40-140	2		40
Benzo(a)pyrene	81		82		40-140	1		40
Benzo(b)fluoranthene	82		82		40-140	0		40
Benzo(k)fluoranthene	82		80		40-140	2		40
Chrysene	80		80		40-140	0		40
Acenaphthylene	87		87		40-140	0		40
Anthracene	82		83		40-140	1		40
Benzo(ghi)perylene	78		78		40-140	0		40
Fluorene	90		90		40-140	0		40
Phenanthrene	82		83		40-140	1		40
Dibenzo(a,h)anthracene	80		79		40-140	1		40
Indeno(1,2,3-cd)pyrene	78		79		40-140	1		40
Pyrene	80		81		40-140	1		40
2-Methylnaphthalene	77		77		40-140	0		40
Pentachlorophenol	76		80		40-140	5		40
Hexachlorobenzene	80		82		40-140	2		40
Hexachloroethane	70		71		40-140	1		40

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
-----------	------------------	------	-------------------	------	---------------------	-----	------	---------------

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02,07 Batch: WG1124380-2 WG1124380-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		59		21-120
Phenol-d6	55		53		10-120
Nitrobenzene-d5	69		68		23-120
2-Fluorobiphenyl	69		68		15-120
2,4,6-Tribromophenol	83		82		10-120
4-Terphenyl-d14	68		68		41-149



# Matrix Spike Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual	Limits	RPD	RPD Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07 QC Batch ID: WG1124379-4 WG1124379-5 QC Sample: L1820793-01 Client ID: MW20-060418												
Biphenyl	ND	18.2	14	77		13	72		40-140	7		30
4-Chloroaniline	ND	18.2	9.9	54		8.9	49		40-140	11		30
2-Nitroaniline	ND	18.2	13	72		13	72		52-143	0		30
3-Nitroaniline	ND	18.2	14	77		13	72		25-145	7		30
4-Nitroaniline	ND	18.2	15	83		15	83		51-143	0		30
Dibenzofuran	ND	18.2	15	83		15	83		40-140	0		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	13	72		13	72		2-134	0		30
Acetophenone	ND	18.2	14	77		14	77		39-129	0		30
2,4,6-Trichlorophenol	ND	18.2	12	66		12	66		30-130	0		30
p-Chloro-m-cresol	ND	18.2	14	77		14	77		23-97	0		30
2-Chlorophenol	ND	18.2	12	66		12	66		27-123	0		30
2,4-Dichlorophenol	ND	18.2	14	77		13	72		30-130	7		30
2,4-Dimethylphenol	ND	18.2	7.4	41		6.9	38		30-130	7		30
2-Nitrophenol	ND	18.2	12	66		12	66		30-130	0		30
4-Nitrophenol	ND	18.2	12	66		11	61		10-80	9		30
2,4-Dinitrophenol	ND	18.2	8.7J	48		8.6J	47		20-130	1		30
4,6-Dinitro-o-cresol	ND	18.2	11	61		11	61		20-164	0		30
Phenol	ND	18.2	9.5	52		9.1	50		12-110	4		30
2-Methylphenol	ND	18.2	12	66		11	61		30-130	9		30
3-Methylphenol/4-Methylphenol	ND	18.2	12	66		12	66		30-130	0		30
2,4,5-Trichlorophenol	ND	18.2	12	66		13	72		30-130	8		30
Benzoic Acid	ND	18.2	9.4J	52		8.7J	48		10-164	8		30
Benzyl Alcohol	ND	18.2	12	66		11	61		26-116	9		30

**Matrix Spike Analysis**  
*Batch Quality Control*

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD RPD	RPD Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,07 QC Batch ID: WG1124379-4 WG1124379-5 QC Sample: L1820793-01 Client ID: MW20-060418												
Carbazole	ND	18.2	14	77		14	77		55-144	0		30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	78		75		10-120
2-Fluorobiphenyl	65		66		15-120
2-Fluorophenol	58		58		21-120
4-Terphenyl-d14	66		67		41-149
Nitrobenzene-d5	66		65		23-120
Phenol-d6	50		49		10-120

## METALS



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-01  
Client ID: MW20-060418  
Sample Location: WATERLOO, NY

Date Collected: 06/04/18 15:20  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.0774		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00066		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Calcium, Total	119.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Iron, Total	0.370		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Magnesium, Total	22.6		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Manganese, Total	0.03211		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Potassium, Total	3.37		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
Sodium, Total	15.3		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:25	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 13:38	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00031	J	mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 13:38	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0274	J	mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 13:38	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.00521		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 13:38	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-02  
Client ID: DUP-GW-060418  
Sample Location: WATERLOO, NY

Date Collected: 06/04/18 08:00  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.0570		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00043	J	mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Calcium, Total	127.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Iron, Total	0.0850		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Magnesium, Total	23.3		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Manganese, Total	0.00961		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Potassium, Total	1.83		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
Sodium, Total	29.7		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:29	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.00367	J	mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 13:42	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00022	J	mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 13:42	EPA 3005A	1,6020A	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 13:42	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.00230		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 13:42	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-03  
Client ID: MW36-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 10:10  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.00748	J	mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Arsenic, Total	0.2250		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Calcium, Total	107.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Iron, Total	4.80		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Magnesium, Total	69.2		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Manganese, Total	0.03009		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Potassium, Total	3.80		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
Silica, Total	27.0		mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 23:07	EPA 3005A	19,200.7	AB
Sodium, Total	91.5		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:45	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 13:46	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.2158		mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 13:46	EPA 3005A	1,6020A	AM
Iron, Dissolved	4.60		mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 13:46	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.02662		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 13:46	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-04  
Client ID: MW35-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 12:15  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.0548		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00837		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Calcium, Total	169.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Iron, Total	1.37		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Magnesium, Total	72.0		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Manganese, Total	0.1829		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Potassium, Total	4.08		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
Silica, Total	19.4		mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 23:12	EPA 3005A	19,200.7	AB
Sodium, Total	164.		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:49	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 13:50	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00832		mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 13:50	EPA 3005A	1,6020A	AM
Iron, Dissolved	1.18		mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 13:50	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.1859		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 13:50	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-05  
Client ID: MW37-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:20  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.0291		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00128		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Calcium, Total	205.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Iron, Total	0.0833		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Magnesium, Total	76.7		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Manganese, Total	0.2960		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Potassium, Total	3.86		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
Silica, Total	20.6		mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 22:21	EPA 3005A	19,200.7	AB
Sodium, Total	465.		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:05	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.00419	J	mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 12:50	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00074		mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 12:50	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0502		mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 12:50	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.2688		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 12:50	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-06  
Client ID: DUP-GW-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 08:05  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.00947	J	mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Arsenic, Total	0.2299		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Calcium, Total	110.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Iron, Total	4.87		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Magnesium, Total	71.1		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Manganese, Total	0.02578		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Potassium, Total	3.87		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
Silica, Total	27.3		mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 23:16	EPA 3005A	19,200.7	AB
Sodium, Total	101.		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:53	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 13:54	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.2180		mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 13:54	EPA 3005A	1,6020A	AM
Iron, Dissolved	4.58		mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 13:54	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.02546		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 13:54	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-07  
Client ID: MW06-060418  
Sample Location: WATERLOO, NY

Date Collected: 06/04/18 16:50  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.0450		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00052		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Calcium, Total	126.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Iron, Total	0.0644		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Magnesium, Total	23.8		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Manganese, Total	0.00975		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Potassium, Total	1.84		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
Sodium, Total	31.7		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 15:57	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 13:58	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00034	J	mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 13:58	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0372	J	mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 13:58	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.00222		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 13:58	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-10  
Client ID: MW33-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:00  
Date Received: 06/05/18  
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
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.0384		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Arsenic, Total	0.01868		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Calcium, Total	337.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Chromium, Total	0.2199		mg/l	0.00100	0.00017	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Iron, Total	0.0418	J	mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Magnesium, Total	73.0		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Manganese, Total	0.5284		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Potassium, Total	25.5		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 16:01	EPA 3005A	1,6020A	AM
Silica, Total	29.8		mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 23:21	EPA 3005A	19,200.7	AB
Sodium, Total	653.		mg/l	5.00	1.46	50	06/07/18 12:20	06/11/18 11:10	EPA 3005A	1,6020A	AM
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.0389		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 14:02	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.02014		mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 14:02	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.2374		mg/l	0.00100	0.00017	1	06/07/18 13:35	06/08/18 14:02	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0482	J	mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 14:02	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.5117		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 14:02	EPA 3005A	1,6020A	AM



Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1820793

Report Date: 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-11  
 Client ID: MW03-060518  
 Sample Location: WATERLOO, NY

Date Collected: 06/05/18 11:00  
 Date Received: 06/05/18  
 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	6.48		mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Arsenic, Total	0.2173		mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Calcium, Total	303.		mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Chromium, Total	0.04858		mg/l	0.00100	0.00017	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Iron, Total	2.84		mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Magnesium, Total	110.		mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Manganese, Total	0.4354		mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Potassium, Total	75.5		mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM
Silica, Total	35.5		mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 23:26	EPA 3005A	19,200.7	AB
Sodium, Total	432.		mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 16:05	EPA 3005A	1,6020A	AM

**Dissolved Metals - Mansfield Lab**

Aluminum, Dissolved	0.0361		mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 14:06	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.2925		mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 14:06	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.03843		mg/l	0.00100	0.00017	1	06/07/18 13:35	06/08/18 14:06	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0241	J	mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 14:06	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.4101		mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 14:06	EPA 3005A	1,6020A	AM



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### **Method Blank Analysis Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
<b>Total Metals - Mansfield Lab for sample(s): 01-07,10-11 Batch: WG1123519-1</b>										
Aluminum, Total	ND	mg/l	0.0100	0.00327	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Arsenic, Total	0.00042	J	mg/l	0.00050	0.00016	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM
Calcium, Total	ND	mg/l	0.100	0.0394	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Chromium, Total	ND	mg/l	0.00100	0.00017	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Iron, Total	ND	mg/l	0.0500	0.0191	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Magnesium, Total	ND	mg/l	0.0700	0.0242	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Manganese, Total	ND	mg/l	0.00100	0.00044	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Potassium, Total	ND	mg/l	0.100	0.0309	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	
Sodium, Total	ND	mg/l	0.100	0.0293	1	06/07/18 12:20	06/08/18 14:57	1,6020A	AM	

#### **Prep Information**

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
<b>Total Metals - Mansfield Lab for sample(s): 03-06,10-11 Batch: WG1123522-1</b>										
Silica, Total	0.028	J	mg/l	0.500	0.007	1	06/07/18 12:20	06/08/18 22:11	19,200.7	AB

#### **Prep Information**

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Dissolved Metals - Mansfield Lab for sample(s): 01-07,10-11 Batch: WG1123564-1</b>									
Aluminum, Dissolved	ND	mg/l	0.0100	0.00327	1	06/07/18 13:35	06/08/18 12:42	1,6020A	AM
Arsenic, Dissolved	ND	mg/l	0.00050	0.00016	1	06/07/18 13:35	06/08/18 12:42	1,6020A	AM
Chromium, Dissolved	ND	mg/l	0.00100	0.00017	1	06/07/18 13:35	06/08/18 12:42	1,6020A	AM
Iron, Dissolved	ND	mg/l	0.0500	0.0191	1	06/07/18 13:35	06/08/18 12:42	1,6020A	AM
Manganese, Dissolved	ND	mg/l	0.00100	0.00044	1	06/07/18 13:35	06/08/18 12:42	1,6020A	AM



**Project Name:** FORMER HAMPSHIRE CHEMICAL CORP

**Lab Number:** L1820793

**Project Number:** 701970.01.SA

**Report Date:** 06/12/18

## **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  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
<b>Total Metals - Mansfield Lab</b> Associated sample(s): 01-07,10-11 Batch: WG1123519-2								
Aluminum, Total	99	-	-	-	80-120	-	-	-
Arsenic, Total	112	-	-	-	80-120	-	-	-
Calcium, Total	87	-	-	-	80-120	-	-	-
Chromium, Total	96	-	-	-	80-120	-	-	-
Iron, Total	108	-	-	-	80-120	-	-	-
Magnesium, Total	94	-	-	-	80-120	-	-	-
Manganese, Total	98	-	-	-	80-120	-	-	-
Potassium, Total	92	-	-	-	80-120	-	-	-
Sodium, Total	95	-	-	-	80-120	-	-	-
<b>Total Metals - Mansfield Lab</b> Associated sample(s): 03-06,10-11 Batch: WG1123522-2								
Silica, Total	102	-	-	-	85-115	-	-	-
<b>Dissolved Metals - Mansfield Lab</b> Associated sample(s): 01-07,10-11 Batch: WG1123564-2								
Aluminum, Dissolved	104	-	-	-	80-120	-	-	-
Arsenic, Dissolved	114	-	-	-	80-120	-	-	-
Chromium, Dissolved	102	-	-	-	80-120	-	-	-
Iron, Dissolved	111	-	-	-	80-120	-	-	-
Manganese, Dissolved	98	-	-	-	80-120	-	-	-

**Matrix Spike Analysis**  
**Batch Quality Control**

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
<b>Total Metals - Mansfield Lab Associated sample(s): 01-07,10-11 QC Batch ID: WG1123519-3 WG1123519-4 QC Sample: L1820793-05 Client ID: MW37-060518</b>												
Aluminum, Total	0.0291	2	2.00	98		2.06	102		75-125	3		20
Arsenic, Total	0.00128	0.12	0.1344	111		0.1321	109		75-125	2		20
Calcium, Total	205.	10	199	0	Q	200	0	Q	75-125	1		20
Chromium, Total	0.0004J	0.2	0.1886	94		0.1886	94		75-125	0		20
Iron, Total	0.0833	1	1.20	112		1.10	102		75-125	9		20
Magnesium, Total	76.7	10	92.3	156	Q	92.8	161	Q	75-125	1		20
Manganese, Total	0.2960	0.5	0.7297	87		0.7454	90		75-125	2		20
Potassium, Total	3.86	10	12.7	88		12.9	90		75-125	2		20
Sodium, Total	465.	10	480	150	Q	475	100		75-125	1		20
<b>Total Metals - Mansfield Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123522-3 WG1123522-4 QC Sample: L1820793-05 Client ID: MW37-060518</b>												
Silica, Total	20.6	2.14	23.9	154	Q	23.8	150	Q	75-125	0		20
<b>Dissolved Metals - Mansfield Lab Associated sample(s): 01-07,10-11 QC Batch ID: WG1123564-3 WG1123564-4 QC Sample: L1820793-05 Client ID: MW37-060518</b>												
Aluminum, Dissolved	0.00419J	2	2.04	102		2.00	100		75-125	2		20
Arsenic, Dissolved	0.00074	0.12	0.1395	116		0.1307	108		75-125	7		20
Chromium, Dissolved	0.0002J	0.2	0.2005	100		0.1992	100		75-125	1		20
Iron, Dissolved	0.0502	1	1.08	103		1.10	105		75-125	2		20
Manganese, Dissolved	0.2688	0.5	0.7747	101		0.7842	103		75-125	1		20

# **INORGANICS & MISCELLANEOUS**



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### SAMPLE RESULTS

Lab ID: L1820793-03  
Client ID: MW36-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 10:10  
Date Received: 06/05/18  
Field Prep: Refer to COC

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	356.		mg CaCO <sub>3</sub> /L	2.00	NA	1	-	06/07/18 09:36	121,2320B	BR
Solids, Total Dissolved	1000		mg/l	10	3.1	1	-	06/08/18 15:00	121,2540C	DW
Nitrogen, Ammonia	0.245		mg/l	0.075	0.024	1	06/06/18 13:30	06/12/18 00:07	44,350.1	AT
Nitrogen, Nitrate	0.048	J	mg/l	0.10	0.033	1	-	06/06/18 22:20	44,353.2	MR
Nitrogen, Total Kjeldahl	0.430		mg/l	0.300	0.066	1	06/07/18 23:30	06/11/18 22:37	4,351.3./1 (M)	AT
Phosphorus, Total	0.086		mg/l	0.010	0.003	1	06/06/18 12:15	06/07/18 09:56	121,4500P-E	SD
Phosphorus, Orthophosphate	0.002	J	mg/l	0.005	0.001	1	-	06/07/18 05:27	121,4500P-E	MA
Sulfide	ND		mg/l	0.10	0.10	1	06/08/18 22:00	06/09/18 03:46	121,4500S2-AD	CW
Total Organic Carbon	1.10		mg/l	0.500	0.114	1	-	06/09/18 12:20	121,5310C	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	288.		mg/l	5.00	0.839	10	-	06/09/18 19:40	44,300.0	JR
Sulfate	183.		mg/l	10.0	1.60	10	-	06/09/18 19:40	44,300.0	JR



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### SAMPLE RESULTS

Lab ID: L1820793-04  
Client ID: MW35-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 12:15  
Date Received: 06/05/18  
Field Prep: Refer to COC

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	328.		mg CaCO <sub>3</sub> /L	2.00	NA	1	-	06/07/18 09:36	121,2320B	BR
Solids, Total Dissolved	1400		mg/l	10	3.1	1	-	06/08/18 15:00	121,2540C	DW
Nitrogen, Ammonia	0.165		mg/l	0.075	0.024	1	06/06/18 13:30	06/12/18 00:10	44,350.1	AT
Nitrogen, Nitrate	0.047	J	mg/l	0.10	0.033	1	-	06/06/18 22:21	44,353.2	MR
Nitrogen, Total Kjeldahl	0.332		mg/l	0.300	0.066	1	06/07/18 23:30	06/11/18 22:40	4,351.3./1 (M)	AT
Phosphorus, Total	0.008	J	mg/l	0.010	0.003	1	06/06/18 12:15	06/07/18 09:57	121,4500P-E	SD
Phosphorus, Orthophosphate	0.002	J	mg/l	0.005	0.001	1	-	06/07/18 05:28	121,4500P-E	MA
Sulfide	ND		mg/l	0.10	0.10	1	06/08/18 22:00	06/09/18 03:46	121,4500S2-AD	CW
Total Organic Carbon	0.690		mg/l	0.500	0.114	1	-	06/09/18 12:20	121,5310C	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	502.		mg/l	12.5	2.10	25	-	06/09/18 18:39	44,300.0	JR
Sulfate	192.		mg/l	25.0	4.00	25	-	06/09/18 18:39	44,300.0	JR



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### SAMPLE RESULTS

Lab ID: L1820793-05  
Client ID: MW37-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:20  
Date Received: 06/05/18  
Field Prep: Refer to COC

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	293.		mg CaCO <sub>3</sub> /L	2.00	NA	1	-	06/07/18 09:36	121,2320B	BR
Solids, Total Dissolved	2600		mg/l	10	3.1	1	-	06/08/18 15:00	121,2540C	DW
Nitrogen, Ammonia	0.073	J	mg/l	0.075	0.024	1	06/06/18 13:30	06/12/18 00:10	44,350.1	AT
Nitrogen, Nitrate	0.14		mg/l	0.10	0.033	1	-	06/06/18 23:49	44,353.2	MR
Nitrogen, Total Kjeldahl	0.393		mg/l	0.300	0.066	1	06/07/18 23:30	06/11/18 22:41	4,351.3./1 (M)	AT
Phosphorus, Total	0.003	J	mg/l	0.010	0.003	1	06/06/18 12:15	06/07/18 09:57	121,4500P-E	SD
Phosphorus, Orthophosphate	0.003	J	mg/l	0.005	0.001	1	-	06/07/18 05:29	121,4500P-E	MA
Sulfide	ND		mg/l	0.11	0.11	1.1	06/08/18 22:00	06/09/18 03:48	121,4500S2-AD	CW
Total Organic Carbon	0.560		mg/l	0.500	0.114	1	-	06/09/18 12:20	121,5310C	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	922.		mg/l	12.5	2.10	25	-	06/09/18 18:51	44,300.0	JR
Sulfate	556.		mg/l	25.0	4.00	25	-	06/09/18 18:51	44,300.0	JR



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### SAMPLE RESULTS

Lab ID: L1820793-06  
Client ID: DUP-GW-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 08:05  
Date Received: 06/05/18  
Field Prep: Refer to COC

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	361.		mg CaCO <sub>3</sub> /L	2.00	NA	1	-	06/07/18 09:36	121,2320B	BR
Solids, Total Dissolved	1000		mg/l	10	3.1	1	-	06/08/18 15:00	121,2540C	DW
Nitrogen, Ammonia	0.194		mg/l	0.075	0.024	1	06/06/18 13:30	06/12/18 00:14	44,350.1	AT
Nitrogen, Nitrate	0.052	J	mg/l	0.10	0.033	1	-	06/06/18 22:30	44,353.2	MR
Nitrogen, Total Kjeldahl	0.502		mg/l	0.300	0.066	1	06/07/18 23:30	06/11/18 22:42	4,351.3./1 (M)	AT
Phosphorus, Total	0.073		mg/l	0.010	0.003	1	06/06/18 12:15	06/07/18 09:58	121,4500P-E	SD
Phosphorus, Orthophosphate	0.002	J	mg/l	0.005	0.001	1	-	06/07/18 05:30	121,4500P-E	MA
Sulfide	ND		mg/l	0.10	0.10	1	06/08/18 22:00	06/09/18 03:48	121,4500S2-AD	CW
Total Organic Carbon	1.07		mg/l	0.500	0.114	1	-	06/09/18 12:20	121,5310C	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	282.		mg/l	5.00	0.839	10	-	06/09/18 19:52	44,300.0	JR
Sulfate	185.		mg/l	10.0	1.60	10	-	06/09/18 19:52	44,300.0	JR



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### SAMPLE RESULTS

Lab ID: L1820793-09  
Client ID: SV05-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:30  
Date Received: 06/05/18  
Field Prep: None

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfide	33.		mg/l	10	10.	100	06/08/18 22:00	06/09/18 03:48	121,4500S2-AD	CW
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	762.		mg/l	12.5	2.10	25	-	06/09/18 20:04	44,300.0	JR
Sulfate	2.60		mg/l	1.00	0.160	1	-	06/09/18 18:03	44,300.0	JR



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**SAMPLE RESULTS**

Lab ID: L1820793-10  
Client ID: MW33-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 15:00  
Date Received: 06/05/18  
Field Prep: Refer to COC

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	1210		mg CaCO <sub>3</sub> /L	10.0	NA	5	-	06/07/18 09:36	121,2320B	BR
Solids, Total Dissolved	3000		mg/l	20	6.1	2	-	06/08/18 15:00	121,2540C	DW
Nitrogen, Ammonia	31.8		mg/l	0.750	0.240	10	06/06/18 13:30	06/12/18 00:15	44,350.1	AT
Nitrogen, Nitrate	0.059	J	mg/l	0.10	0.033	1	-	06/06/18 23:51	44,353.2	MR
Nitrogen, Total Kjeldahl	32.7		mg/l	3.00	0.660	10	06/07/18 23:30	06/11/18 22:55	4,351.3./1 (M)	AT
Phosphorus, Total	0.445		mg/l	0.020	0.006	2	06/06/18 12:15	06/07/18 09:59	121,4500P-E	SD
Phosphorus, Orthophosphate	0.431	J	mg/l	0.500	0.100	100	-	06/07/18 05:48	121,4500P-E	MA
Sulfide	66.		mg/l	10	10.	100	06/08/18 22:00	06/09/18 03:48	121,4500S2-AD	CW
Total Organic Carbon	32.3		mg/l	10.0	2.28	20	-	06/10/18 12:14	121,5310C	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	816.		mg/l	12.5	2.10	25	-	06/09/18 20:40	44,300.0	JR
Sulfate	235.		mg/l	25.0	4.00	25	-	06/09/18 20:40	44,300.0	JR

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

### SAMPLE RESULTS

Lab ID: L1820793-11  
Client ID: MW03-060518  
Sample Location: WATERLOO, NY

Date Collected: 06/05/18 11:00  
Date Received: 06/05/18  
Field Prep: Refer to COC

Sample Depth:  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	2100		mg CaCO <sub>3</sub> /L	10.0	NA	5	-	06/07/18 09:36	121,2320B	BR
Solids, Total Dissolved	3200		mg/l	20	6.1	2	-	06/08/18 15:00	121,2540C	DW
Nitrogen, Ammonia	113.		mg/l	1.88	0.600	25	06/06/18 13:30	06/12/18 00:16	44,350.1	AT
Nitrogen, Nitrate	0.054	J	mg/l	0.10	0.033	1	-	06/06/18 23:56	44,353.2	MR
Nitrogen, Total Kjeldahl	111.		mg/l	7.50	1.65	25	06/07/18 23:30	06/11/18 22:56	4,351.3./1 (M)	AT
Phosphorus, Total	0.340		mg/l	0.020	0.006	2	06/06/18 12:15	06/07/18 10:00	121,4500P-E	SD
Phosphorus, Orthophosphate	0.233	J	mg/l	0.500	0.100	100	-	06/07/18 05:48	121,4500P-E	MA
Sulfide	68.		mg/l	10	10.	100	06/08/18 22:00	06/09/18 03:49	121,4500S2-AD	CW
Total Organic Carbon	158.		mg/l	20.0	4.56	40	-	06/09/18 12:20	121,5310C	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	681.		mg/l	12.5	2.10	25	-	06/09/18 20:52	44,300.0	JR
Sulfate	42.0		mg/l	1.00	0.160	1	-	06/09/18 19:28	44,300.0	JR



**Project Name:** FORMER HAMPSHIRE CHEMICAL CO  
**Project Number:** 701970.01.SA

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**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): 03-06,10-11 Batch: WG1122948-1										
Phosphorus, Total	ND	mg/l	0.010	0.003	1	06/06/18 12:15	06/07/18 09:29	121,4500P-E	SD	
General Chemistry - Westborough Lab for sample(s): 03-06,10-11 Batch: WG1123045-1										
Nitrogen, Ammonia	0.025	J	mg/l	0.075	0.024	1	06/06/18 13:30	06/12/18 00:02	44,350.1	AT
General Chemistry - Westborough Lab for sample(s): 03-06,10-11 Batch: WG1123192-1										
Nitrogen, Nitrate	ND	mg/l	0.10	0.033	1	-	06/06/18 20:57	44,353.2	MR	
General Chemistry - Westborough Lab for sample(s): 03-06,10-11 Batch: WG1123307-1										
Phosphorus, Orthophosphate	ND	mg/l	0.005	0.001	1	-	06/07/18 05:26	121,4500P-E	MA	
General Chemistry - Westborough Lab for sample(s): 03-06,10-11 Batch: WG1123435-1										
Alkalinity, Total	ND	mg CaCO <sub>3</sub> /L	2.00	NA	1	-	06/07/18 09:36	121,2320B	BR	
General Chemistry - Westborough Lab for sample(s): 03-06,10-11 Batch: WG1123719-1										
Nitrogen, Total Kjeldahl	0.127	J	mg/l	0.300	0.022	1	06/07/18 23:30	06/11/18 22:21	4,351.3/1 (M)	AT
General Chemistry - Westborough Lab for sample(s): 03-06,10-11 Batch: WG1123810-1										
Solids, Total Dissolved	ND	mg/l	10	3.1	1	-	06/08/18 15:00	121,2540C	DW	
General Chemistry - Westborough Lab for sample(s): 03-06,09-11 Batch: WG1124169-1										
Sulfide	ND	mg/l	0.10	0.10	1	06/08/18 22:00	06/09/18 03:45	121,4500S2-AD	CW	
General Chemistry - Westborough Lab for sample(s): 03-06,11 Batch: WG1124275-1										
Total Organic Carbon	ND	mg/l	0.500	0.114	1	-	06/09/18 12:20	121,5310C	AG	
General Chemistry - Westborough Lab for sample(s): 10 Batch: WG1124427-1										
Total Organic Carbon	ND	mg/l	0.500	0.114	1	-	06/10/18 12:14	121,5310C	AG	
Anions by Ion Chromatography - Westborough Lab for sample(s): 03-06,09-11 Batch: WG1124474-1										
Chloride	ND	mg/l	0.500	0.083	1	-	06/09/18 14:51	44,300.0	JR	
Sulfate	0.201	J	mg/l	1.00	0.160	1	-	06/09/18 14:51	44,300.0	JR



# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1122948-2						
Phosphorus, Total	93	-	80-120	-	-	
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1123045-2						
Nitrogen, Ammonia	96	-	90-110	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1123192-2						
Nitrogen, Nitrate	102	-	90-110	-	-	
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1123307-2						
Phosphorus, Orthophosphate	97	-	90-110	-	-	
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1123435-2						
Alkalinity, Total	101	-	90-110	-	-	10
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1123719-2						
Nitrogen, Total Kjeldahl	86	-	78-122	-	-	
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 Batch: WG1123810-2						
Solids, Total Dissolved	100	-	80-120	-	-	

# Lab Control Sample Analysis

## Batch Quality Control

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-06,09-11 Batch: WG1124169-2					
Sulfide	81	-	75-125	-	-
General Chemistry - Westborough Lab Associated sample(s): 03-06,11 Batch: WG1124275-2					
Total Organic Carbon	102	-	90-110	-	-
General Chemistry - Westborough Lab Associated sample(s): 10 Batch: WG1124427-2					
Total Organic Carbon	101	-	90-110	-	-
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 03-06,09-11 Batch: WG1124474-2					
Chloride	102	-	90-110	-	-
Sulfate	108	-	90-110	-	-

**Matrix Spike Analysis**  
**Batch Quality Control**

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1122948-3 QC Sample: L1820015-01 Client ID: MS Sample												
Phosphorus, Total	0.003J	0.5	0.492	98	-	-	-	-	75-125	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123045-4 QC Sample: L1820793-03 Client ID: MW36-060518												
Nitrogen, Ammonia	0.245	4	2.02	44	Q	-	-	-	90-110	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123192-4 QC Sample: L1820793-05 Client ID: MW37-060518												
Nitrogen, Nitrate	0.14	4	4.1	99	-	-	-	-	83-113	-	-	6
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123307-4 QC Sample: L1820793-03 Client ID: MW36-060518												
Phosphorus, Orthophosphate	0.002J	0.5	0.481	96	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123435-4 QC Sample: L1820793-05 Client ID: MW37-060518												
Alkalinity, Total	293.	100	390	97	-	-	-	-	86-116	-	-	10
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123719-4 QC Sample: L1820793-03 Client ID: MW36-060518												
Nitrogen, Total Kjeldahl	0.430	8	7.73	91	-	-	-	-	77-111	-	-	24
General Chemistry - Westborough Lab Associated sample(s): 03-06,09-11 QC Batch ID: WG1124169-4 QC Sample: L1820793-04 Client ID: MW35-060518												
Sulfide	ND	0.54	0.33	61	Q	-	-	-	70-130	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 03-06,11 QC Batch ID: WG1124275-4 QC Sample: L1820251-01 Client ID: MS Sample												
Total Organic Carbon	0.880	40	40.9	100	-	-	-	-	80-120	-	-	20

**Matrix Spike Analysis**  
**Batch Quality Control**

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 10 QC Batch ID: WG1124427-4 QC Sample: L1821549-01 Client ID: MS Sample									
Total Organic Carbon	3.56	8	11.8	103	-	-	80-120	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 03-06,09-11 QC Batch ID: WG1124474-3 QC Sample: L1820793-10 Client ID: MW33-060518									
Chloride	816.	100	950	134	Q	-	90-110	-	18
Sulfate	235.	200	457	111	Q	-	90-110	-	20

**Lab Duplicate Analysis**  
*Batch Quality Control*

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1122948-4 QC Sample: L1820015-01 Client ID: DUP Sample						
Phosphorus, Total	0.003J	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123045-3 QC Sample: L1820793-03 Client ID: MW36-060518						
Nitrogen, Ammonia	0.245	0.204	mg/l	18		20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123192-3 QC Sample: L1820793-05 Client ID: MW37-060518						
Nitrogen, Nitrate	0.14	0.13	mg/l	7	Q	6
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123307-3 QC Sample: L1820793-04 Client ID: MW35-060518						
Phosphorus, Orthophosphate	0.002J	0.001J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123435-3 QC Sample: L1820793-04 Client ID: MW35-060518						
Alkalinity, Total	328.	330	mg CaCO <sub>3</sub> /L	1		10
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123719-3 QC Sample: L1820793-03 Client ID: MW36-060518						
Nitrogen, Total Kjeldahl	0.430	0.602	mg/l	33	Q	24
General Chemistry - Westborough Lab Associated sample(s): 03-06,10-11 QC Batch ID: WG1123810-3 QC Sample: L1820793-03 Client ID: MW36-060518						
Solids, Total Dissolved	1000	1000	mg/l	0		10

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

**Lab Duplicate Analysis**  
*Batch Quality Control*

**Lab Number:** L1820793  
**Report Date:** 06/12/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-06,09-11 QC Batch ID: WG1124169-3 QC Sample: L1820793-03 Client ID: MW36-060518					
Sulfide	ND	ND	mg/l	NC	20
General Chemistry - Westborough Lab Associated sample(s): 03-06,11 QC Batch ID: WG1124275-3 QC Sample: L1820977-01 Client ID: DUP Sample					
Total Organic Carbon	0.250J	ND	mg/l	NC	20
General Chemistry - Westborough Lab Associated sample(s): 10 QC Batch ID: WG1124427-3 QC Sample: L1821549-01 Client ID: DUP Sample					
Total Organic Carbon	3.56	3.58	mg/l	1	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 03-06,09-11 QC Batch ID: WG1124474-4 QC Sample: L1820793-10 Client ID: MW33-060518					
Chloride	816.	816	mg/l	0	18
Sulfate	235.	237	mg/l	1	20

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

Serial\_No:06121817:54  
**Lab Number:** L1820793  
**Report Date:** 06/12/18

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent
B	Absent
C	Absent
D	Absent

#### Container Information

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1820793-01A	Vial HCl preserved	C	NA		3.0	Y	Absent		NYTCL-8260(14)
L1820793-01B	Vial HCl preserved	C	NA		3.0	Y	Absent		NYTCL-8260(14)
L1820793-01C	Vial HCl preserved	C	NA		3.0	Y	Absent		NYTCL-8260(14)
L1820793-01D	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	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)
L1820793-01E	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-01F	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01F1	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01G	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01G1	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01H	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01H1	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01I	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-01I1	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-02A	Vial HCl preserved	C	NA		3.0	Y	Absent		NYTCL-8260(14)
L1820793-02B	Vial HCl preserved	C	NA		3.0	Y	Absent		NYTCL-8260(14)
L1820793-02C	Vial HCl preserved	C	NA		3.0	Y	Absent		NYTCL-8260(14)
L1820793-02D	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	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)

\*Values in parentheses indicate holding time in days

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1820793-02E	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-02F	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-02G	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-02H	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-02I	Amber 250ml unpreserved	C	7	7	3.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-03D	Plastic 250ml unpreserved/No Headspace	B	NA		4.1	Y	Absent		ALK-T-2320(14)
L1820793-03D1	Plastic 250ml unpreserved/No Headspace	B	NA		4.1	Y	Absent		ALK-T-2320(14)
L1820793-03E	Plastic 500ml unpreserved	B	7	7	4.1	Y	Absent		SO4-300(28),CL-300(28),NO3-353(2)
L1820793-03F	Plastic 250ml unpreserved	B	7	7	4.1	Y	Absent		OPHOS-4500(2)
L1820793-03G	Plastic 250ml unpreserved	B	7	7	4.1	Y	Absent		TDS-2540(7)
L1820793-03G1	Plastic 500ml unpreserved	B	7	7	4.1	Y	Absent		TDS-2540(7)
L1820793-03H	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	4.1	Y	Absent		SULFIDE-4500(7)
L1820793-03I	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	4.1	Y	Absent		SULFIDE-4500(7)
L1820793-03J	Plastic 500ml H2SO4 preserved	B	<2	<2	4.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-03K	Plastic 500ml H2SO4 preserved	B	<2	<2	4.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-03L	Vial H2SO4 preserved	B	NA		4.1	Y	Absent		TOC-5310(28)
L1820793-03M	Vial H2SO4 preserved	B	NA		4.1	Y	Absent		TOC-5310(28)
L1820793-03N	Vial H2SO4 preserved	B	NA		4.1	Y	Absent		TOC-5310(28)
L1820793-03O	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-03P	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	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)
L1820793-04D	Plastic 250ml unpreserved/No Headspace	C	NA		3.0	Y	Absent		ALK-T-2320(14)
L1820793-04E	Plastic 500ml unpreserved	C	7	7	3.0	Y	Absent		SO4-300(28),CL-300(28),NO3-353(2)
L1820793-04F	Plastic 250ml unpreserved	C	7	7	3.0	Y	Absent		OPHOS-4500(2)
L1820793-04G	Plastic 250ml unpreserved	C	7	7	3.0	Y	Absent		TDS-2540(7)
L1820793-04H	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	3.0	Y	Absent		SULFIDE-4500(7)
L1820793-04I	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	3.0	Y	Absent		SULFIDE-4500(7)

\*Values in parentheses indicate holding time in days

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1820793-04J	Plastic 500ml H <sub>2</sub> SO <sub>4</sub> preserved	C	<2	<2	3.0	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-04K	Plastic 500ml H <sub>2</sub> SO <sub>4</sub> preserved	C	<2	<2	3.0	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-04L	Vial H <sub>2</sub> SO <sub>4</sub> preserved	C	NA		3.0	Y	Absent		TOC-5310(28)
L1820793-04M	Vial H <sub>2</sub> SO <sub>4</sub> preserved	C	NA		3.0	Y	Absent		TOC-5310(28)
L1820793-04N	Vial H <sub>2</sub> SO <sub>4</sub> preserved	C	NA		3.0	Y	Absent		TOC-5310(28)
L1820793-04O	Plastic 250ml HNO <sub>3</sub> preserved	C	<2	<2	3.0	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-04P	Plastic 250ml HNO <sub>3</sub> preserved	C	<2	<2	3.0	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)
L1820793-05D	Plastic 250ml unpreserved/No Headspace	B	NA		4.1	Y	Absent		ALK-T-2320(14)
L1820793-05E	Plastic 500ml unpreserved	B	7	7	4.1	Y	Absent		SO4-300(28),CL-300(28),NO3-353(2)
L1820793-05F	Plastic 250ml unpreserved	B	7	7	4.1	Y	Absent		OPHOS-4500(2)
L1820793-05G	Plastic 250ml unpreserved	B	7	7	4.1	Y	Absent		TDS-2540(7)
L1820793-05H	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	4.1	Y	Absent		SULFIDE-4500(7)
L1820793-05I	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	4.1	Y	Absent		SULFIDE-4500(7)
L1820793-05J	Plastic 500ml H <sub>2</sub> SO <sub>4</sub> preserved	B	<2	<2	4.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-05K	Plastic 500ml H <sub>2</sub> SO <sub>4</sub> preserved	B	<2	<2	4.1	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-05L	Vial H <sub>2</sub> SO <sub>4</sub> preserved	B	NA		4.1	Y	Absent		TOC-5310(28)
L1820793-05M	Vial H <sub>2</sub> SO <sub>4</sub> preserved	B	NA		4.1	Y	Absent		TOC-5310(28)
L1820793-05N	Vial H <sub>2</sub> SO <sub>4</sub> preserved	B	NA		4.1	Y	Absent		TOC-5310(28)
L1820793-05O	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	<2	4.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-05O1	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	<2	4.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-05O2	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	<2	4.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-05P	Plastic 500ml HNO <sub>3</sub> preserved	B	<2	<2	4.1	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)
L1820793-05P1	Plastic 500ml HNO <sub>3</sub> preserved	B	<2	<2	4.1	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)

\*Values in parentheses indicate holding time in days

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1820793-05P2	Plastic 500ml HNO3 preserved	B	<2	<2	4.1	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)
L1820793-06D	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L1820793-06E	Plastic 500ml unpreserved	A	7	7	2.6	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1820793-06H	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1820793-06I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1820793-06J	Plastic 500ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-06K	Plastic 500ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-06L	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1820793-06M	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1820793-06N	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1820793-06O	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-06P	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	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)
L1820793-07A	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260(14)
L1820793-07B	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260(14)
L1820793-07C	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260(14)
L1820793-07D	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	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)
L1820793-07E	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-07F	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-07G	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-07H	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-07I	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1820793-08A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-08B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1820793-09A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-09B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-09C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-09D	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28)
L1820793-09E	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1820793-09F	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1820793-10A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-10B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-10C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-10D	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L1820793-10E	Plastic 500ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28),NO3-353(2)
L1820793-10F	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		OPHOS-4500(2)
L1820793-10G	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		TDS-2540(7)
L1820793-10H	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1820793-10I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1820793-10J	Plastic 500ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-10K	Plastic 500ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-10L	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1820793-10M	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1820793-10N	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1820793-10O	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		MN-6020S(180),CR-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-10P	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	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)
L1820793-11A	Vial HCl preserved	D	NA		3.6	Y	Absent		NYTCL-8260(14)
L1820793-11B	Vial HCl preserved	D	NA		3.6	Y	Absent		NYTCL-8260(14)
L1820793-11C	Vial HCl preserved	D	NA		3.6	Y	Absent		NYTCL-8260(14)
L1820793-11D	Plastic 250ml unpreserved/No Headspace	D	NA		3.6	Y	Absent		ALK-T-2320(14)
L1820793-11E	Plastic 500ml unpreserved	D	7	7	3.6	Y	Absent		SO4-300(28),CL-300(28),NO3-353(2)

\*Values in parentheses indicate holding time in days

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1820793-11F	Plastic 250ml unpreserved	D	7	7	3.6	Y	Absent		OPHOS-4500(2)
L1820793-11G	Plastic 250ml unpreserved	D	7	7	3.6	Y	Absent		TDS-2540(7)
L1820793-11H	Plastic 250ml Zn Acetate/NaOH preserved	D	>9	>9	3.6	Y	Absent		SULFIDE-4500(7)
L1820793-11I	Plastic 250ml Zn Acetate/NaOH preserved	D	>9	>9	3.6	Y	Absent		SULFIDE-4500(7)
L1820793-11J	Plastic 500ml H <sub>2</sub> SO <sub>4</sub> preserved	D	<2	<2	3.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-11K	Plastic 500ml H <sub>2</sub> SO <sub>4</sub> preserved	D	<2	<2	3.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1820793-11L	Vial H <sub>2</sub> SO <sub>4</sub> preserved	D	NA		3.6	Y	Absent		TOC-5310(28)
L1820793-11M	Vial H <sub>2</sub> SO <sub>4</sub> preserved	D	NA		3.6	Y	Absent		TOC-5310(28)
L1820793-11N	Vial H <sub>2</sub> SO <sub>4</sub> preserved	D	NA		3.6	Y	Absent		TOC-5310(28)
L1820793-11O	Plastic 250ml HNO <sub>3</sub> preserved	D	<2	<2	3.6	Y	Absent		MN-6020S(180),CR-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1820793-11P	Plastic 250ml HNO <sub>3</sub> preserved	D	<2	<2	3.6	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)
L1820793-12A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1820793-12B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

## 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

**Report Format:** DU Report with 'J' Qualifiers



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

**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 exceedances 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.

*Report Format:* DU Report with 'J' Qualifiers



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

**Lab Number:** L1820793  
**Report Date:** 06/12/18

## 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 its 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.



## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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; SM4500NO<sub>3</sub>-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, SM4500NO<sub>3</sub>-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO<sub>4</sub>-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.

L1820793

<b>JACOBS</b>				<b>Chain of Custody Record</b>					LABORATORY: Alpha Analytical, 8 Walkup Dr, Westborough, MA 01581 18001624-9220														
PROJECT: Former Hampshire Chemical Corp., Waterloo, NY PROJECT NUMBER: 703077.01.SA EVENT: 2018 Annual Groundwater Sampling				CH2M COC (YYYYMMDD-##): 2018060418-2					LABORATORY CONTACT: Ashley Kane														
PURCHASE ORDER #: 703077				DATA PACKAGE: Level IV					PROJECT MANAGER & REPORT TO #1: David Newman 299 Madison Ave., Morristown, NJ 07960 1862 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									
TURNAROUND TIME: Standard		PROGRAM: RCRA			PRESERVATIVE CODES ( H=HCl, N=NHO <sub>3</sub> , S=H <sub>2</sub> SO <sub>4</sub> , Zn=zinc acetate, B=NaOH, --=none )																		
SAMPLER(s): <i>Dan Holmes</i>		SIGNATURE: <i>Dan Holmes</i>			H	N	N	N	N	--	--	S	--	Z,B	N	--	--						
SAMPLE IDENTIFICATION		GRAB/COMPOSITE	DATE	TIME	MATRIX	# CONTAINERS	VOCs + TICs (8270C)	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 <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> )	Nitrate (353.2)	Alkalinity (310.2)	Total Phosphorous (365.4)	TOC (5M310)	THN (351.2)	Orthophosphate (SM450DPE) Field Filtered	TDS (5M2540)	Total Sulfide (SM4500)	Silica (200.7)	SVOCs + TICs (8270C)	PAHs (8270D SIM)
MN20-060418	G	6/4/18	1520	GW	9	✓				✓										✓	✓		
MN20-060418-MS		6/4/18	1520		2																		
MW20-060418-MSD		6/4/18	1520		2																		
Dup-GW-060418		6/4/18	0800		9	✓				✓	✓									✓	✓		
MW30-060518		6/5/18	1010		13					✓	✓												
MW33-060518		6/5/18	1215		13					✓	✓												
MW37-060518		6/5/18	1520		13					✓	✓												
MW37-060518-MS		6/5/18	1520		2					✓	✓												
MW37-060518-MSD		6/5/18	1520		2					✓	✓												
Dup-GW-060518		6/5/18	0805		13					✓	✓												
MW06-060418		6/4/18	1650	V	9	✓				✓	✓									✓			
TB-060518		6/5/18	0810	W	2	✓																	
1. RELINQUISHED BY (Signature)	DATE	TIME	1. RECEIVED BY (Signature)	DATE	TIME	ADDITIONAL REMARKS/INSTRUCTIONS:																	
<i>Dan Holmes</i>	6/4/18	1655	180048 AAC	6-5-18	1653																		
2. RELINQUISHED BY (Signature)	DATE	TIME	2. RECEIVED BY (Signature)	DATE	TIME																		
			<i>Ashley Kane</i>	6/4/18	0130																		
3. RELINQUISHED BY (Signature)	DATE	TIME	3. RECEIVED BY (Signature)	DATE	TIME																		
PAGE _____ of _____																							

E1820783

**JACOBS®****Chain of Custody Record**

CH2M COC (YYYYMMDD-#): 20180605-03

LABORATORY: Alpha Analytical, 8 Walkup Dr, Westborough, MA 01581

(800) 624-9220

LABORATORY CONTACT: Ashaley Kane

PROJECT: Former Hampshire Chemical Corp., Waterloo, NY PROJECT NUMBER: 703077.01.SA EVENT: 2018 Annual Groundwater Sampling				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 # 131004891 703077 DATA PACKAGE: Level IV TURNAROUND TIME: Standard PROGRAM: RCRA				ANALYSES REQUESTED																			
SAMPLER(s): C. Loeffelholz A. Steppeler, T. Soilsburg		SIGNATURE: <i>[Signature]</i>		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 b (6010C) (Al, As, Fe, Mn) Field Filtered	Anions (300.0) (Cl <sup>-</sup> , SO <sup>4</sup> <sup>2-</sup> )	Nitrate (353.2)	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 SM)
SV05 - 060518	G	6/5/18	1500	GW	6	✓					✓										Note #1		
MW33 - 060518	I		1500	I	16	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓				
MW03 - 060518	↓		1100	↓	16	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
TB-060518-2	-		0800	W	2	✓																	
1. RELINQUISHED BY (Signature)	DATE	TIME	1. RECEIVED BY (Signature)	DATE	TIME	ADDITIONAL REMARKS/INSTRUCTIONS:																	
<i>[Signature]</i>	6/5/18	1700	<i>[Signature]</i>	6/5/18	16:55	① Collected from well with high hydrogen sulfide gas																	
2. RELINQUISHED BY (Signature)	DATE	TIME	2. RECEIVED BY (Signature)	DATE	TIME																		
3. RELINQUISHED BY (Signature)	DATE	TIME	3. RECEIVED BY (Signature)	DATE	TIME																		