



Minnesota  
Department  
of Health

PROTECTING, MAINTAINING & IMPROVING THE HEALTH OF ALL MINNESOTANS

**To:** Community Water Supply Owner/Water Superintendent

**From:** Community Water Supply Unit  
Section of Drinking Water Protection

**Subject:** Sample Analysis Results for your Public Water Supply

Enclosed are the results of analyses performed on water samples collected from your public water supply. These results show that your system is in compliance with maximum contaminant levels set by the state and federal Safe Drinking Water Rules for the contaminants analyzed. No action is necessary from your water system, at this time. These results must be kept in your files for a minimum of ten years.

Analyses are attached for the contaminant groups checked below:

- |  |   |
|--|---|
| <input type="checkbox"/> Coliform Bacteria                           | <input type="checkbox"/> Radiochemical(s)               |
| <input checked="" type="checkbox"/> Haloacetic Acids/Trihalomethanes | <input type="checkbox"/> Radon (proposed rule-MCL 4000) |
| <input type="checkbox"/> Inorganics                                  | <input type="checkbox"/> Synthetic Organics             |
| <input type="checkbox"/> Nitrate                                     | <input type="checkbox"/> Volatile Organics              |
| <input type="checkbox"/> Nitrite                                     | <input type="checkbox"/> Other _____                    |

If you have any questions concerning these results, please contact David Rindal at 651-201-4660 or your Department of Health district engineer.

**Bemidji**

Todd Johnson 218-308-2110

**Duluth**

Mike Luhrsen 218-302-6178

**Fergus Falls**

Steve Pederson 218-332-5146

**Mankato**

Mark Sweers 507-344-2736

Amy Lynch 507-344-2713

**Marshall**

John Blomme 507-537-7308

**Rochester**

Paul Halvorson 507-206-2724

**St. Cloud**

Jon Groethe 320-223-7339

Kim Larsen 320-223-7330

Dave Schultz 320-223-7328

**St. Paul**

Bassam Banat 651-201-3973

Lucas Martin 651-201-4144

Isaac Bradlich 651-201-3971



# Final Report

CSSW B Q 2  
 1620026 St Paul  
 TOC >4.0  
 Minnesota Department of Health  
 Public Health Laboratory  
 Environmental Laboratory Section  
 601 Robert St. N., P.O. Box 64899  
 St. Paul, MN 55164-0899  
 651-201-5300

PWSID: 1620001  
 System Name: Arden Hills  
 City: Arden Hills

Program Code: HC

Type: B

Date Received: 07/11/16 08:01  
 Rep. Temp. (°C): 14.3

Collector Name: Thomas Mikacevich  
 Collector ID: None

## MDH Sample Number: 16G0350-01

Location ID: 00061  
 Sampling Point: 4797 Hwy 10 - Scherer Brothers

Collect Date: 07/11/16  
 Collect Time: 07:15  
 Matrix: Drinking Water

Field Residual Chlorine Result: None  
 Field Fluoride Result: None  
 Field pH Result: None  
 Field PO<sub>4</sub> Result: None

Results were produced by the Minnesota Department of Health, except where noted.

### Haloacetic Acids, ICR

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Dibromoacetic Acid [2C]	<	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:06	APM	EPA 552.2	
<b>Dichloroacetic Acid [2C]</b>	<b>21</b>	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:06	APM	EPA 552.2	
Monobromoacetic Acid [2C]	<	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:06	APM	EPA 552.2	
Monochloroacetic Acid	<	2.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:06	APM	EPA 552.2	
<b>Trichloroacetic Acid [2C]</b>	<b>7.0</b>	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:06	APM	EPA 552.2	
Surrogate: Bromopropionic Acid [2C]	107	70-130	%	B6G0194	07/12/16 09:15	07/26/16 03:06	APM	EPA 552.2	

28.0  
 RA 33.2

### THMs by GCMS

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
<b>Bromodichloromethane</b>	<b>6.6</b>	0.5	ug/L	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
Bromoform	<	0.5	ug/L	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
<b>Chlorodibromomethane</b>	<b>0.6</b>	0.5	ug/L	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
<b>Chloroform</b>	<b>32</b>	0.5	ug/L	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4	102	70-130	%	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
Surrogate: 1,2-Dichloroethane-d4	98	70-130	%	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
Surrogate: 4-Bromofluorobenzene	101	70-130	%	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
Surrogate: Dibromofluoromethane	104	70-130	%	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	
Surrogate: Toluene-d8	100	70-130	%	B6G0189	07/12/16 15:46	07/12/16 15:46	EAS	EPA 524.2	

39.2  
 RA 42.6

FINAL REPORT

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Paul Moyer, Environmental Laboratory Manager  
 Public Health Laboratory, Minnesota Department of Health



# Final Report

Minnesota Department of Health  
Public Health Laboratory  
Environmental Laboratory Section  
601 Robert St. N., P.O. Box 64899  
St. Paul, MN 55164-0899  
651-201-5300

PWSID: 1620001

## MDH Sample Number: 16G0350-02

Location ID: 00062  
Sampling Point: 1425 Paul Kirkwood Dr (Shop)

Collect Date: 07/11/16  
Collect Time: 07:05  
Matrix: Drinking Water

Field Residual Chlorine Result: None  
Field Fluoride Result: None  
Field pH Result: None  
Field PO4 Result: None

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### Haloacetic Acids, ICR

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Dibromoacetic Acid [2C]	<	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:36	APM	EPA 552.2	
<b>Dichloroacetic Acid [2C]</b>	<b>16</b>	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:36	APM	EPA 552.2	
Monobromoacetic Acid [2C]	<	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:36	APM	EPA 552.2	
Monochloroacetic Acid	<	2.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:36	APM	EPA 552.2	
<b>Trichloroacetic Acid [2C]</b>	<b>6.9</b>	1.0	ug/L	B6G0194	07/12/16 09:15	07/26/16 03:36	APM	EPA 552.2	
Surrogate: Bromopropionic Acid [2C]	108	70-130	%	B6G0194	07/12/16 09:15	07/26/16 03:36	APM	EPA 552.2	

### THMs by GCMS

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
<b>Bromodichloromethane</b>	<b>6.8</b>	0.5	ug/L	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
Bromoform	<	0.5	ug/L	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
<b>Chlorodibromomethane</b>	<b>0.7</b>	0.5	ug/L	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
<b>Chloroform</b>	<b>30</b>	0.5	ug/L	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4	102	70-130	%	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
Surrogate: 1,2-Dichloroethane-d4	100	70-130	%	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
Surrogate: 4-Bromofluorobenzene	100	70-130	%	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
Surrogate: Dibromofluoromethane	103	70-130	%	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	
Surrogate: Toluene-d8	98	70-130	%	B6G0189	07/12/16 16:09	07/12/16 16:09	EAS	EPA 524.2	

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 Environmental Laboratory Section  
 601 Robert St. N., P.O. Box 64899  
 St. Paul, MN 55164-0899  
 651-201-5300

PWSID: 1620001

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**Batch B6G0194 - HAA Extraction**

**Blank (B6G0194-BLK1)**

Prepared: 07/12/16 09:15 Analyzed: 07/25/16 19:02

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	<	1.0	ug/L							APM	
Dichloroacetic Acid [2C]	<	1.0	ug/L							APM	
Monobromoacetic Acid [2C]	<	1.0	ug/L							APM	
Monochloroacetic Acid	<	2.0	ug/L							APM	
Trichloroacetic Acid [2C]	<	1.0	ug/L							APM	
Surrogate: Bromopropionic Acid [2C]	99	70-130	%	6.01						APM	

**LCS (B6G0194-BS1)**

Prepared: 07/12/16 09:15 Analyzed: 07/25/16 18:32

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	9.4	1.0	ug/L	10.01		94	70-130			APM	
Dichloroacetic Acid [2C]	9.6	1.0	ug/L	10.02		95	70-130			APM	
Monobromoacetic Acid [2C]	9.0	1.0	ug/L	10.03		90	70-130			APM	
Monochloroacetic Acid	19	2.0	ug/L	20.02		96	70-130			APM	
Trichloroacetic Acid [2C]	9.8	1.0	ug/L	10.05		97	70-130			APM	
Surrogate: Bromopropionic Acid [2C]	94	70-130	%	6.01						APM	

**LCS (B6G0194-BS2)**

Prepared: 07/12/16 09:15 Analyzed: 07/26/16 00:35

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	20	1.0	ug/L	20.02		99	70-130			APM	
Dichloroacetic Acid [2C]	20	1.0	ug/L	20.04		102	70-130			APM	
Monobromoacetic Acid [2C]	20	1.0	ug/L	20.06		97	70-130			APM	
Monochloroacetic Acid	37	2.0	ug/L	40.04		92	70-130			APM	
Trichloroacetic Acid [2C]	20	1.0	ug/L	20.1		97	70-130			APM	
Surrogate: Bromopropionic Acid [2C]	100	70-130	%	6.01						APM	

**LCS (B6G0194-BS3)**

Prepared: 07/12/16 09:15 Analyzed: 07/26/16 05:37

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	9.7	1.0	ug/L	10.01		97	70-130			APM	
Dichloroacetic Acid [2C]	9.8	1.0	ug/L	10.02		98	70-130			APM	
Monobromoacetic Acid [2C]	9.5	1.0	ug/L	10.03		95	70-130			APM	
Monochloroacetic Acid	19	2.0	ug/L	20.02		96	70-130			APM	

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 651-201-5300

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Batch B6G0194 - HAA Extraction

**LCS (B6G0194-BS3)**

Prepared: 07/12/16 09:15 Analyzed: 07/26/16 05:37

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Trichloroacetic Acid [2C]	10	1.0	ug/L	10.05		101	70-130			APM	
Surrogate: Bromopropionic Acid [2C]	96	70-130	%	6.01						APM	

**Matrix Spike (B6G0194-MS1)**

Source: 16G0193-01

Prepared: 07/12/16 09:15 Analyzed: 07/26/16 01:35

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	23	1.0	ug/L	20.02	1.3	107	70-130			APM	
Dichloroacetic Acid [2C]	25	1.0	ug/L	20.04	3.1	108	70-130			APM	
Monobromoacetic Acid [2C]	22	1.0	ug/L	20.06	<	109	70-130			APM	
Monochloroacetic Acid	42	2.0	ug/L	40.04	<	102	70-130			APM	
Trichloroacetic Acid [2C]	23	1.0	ug/L	20.1	2.7	100	70-130			APM	
Surrogate: Bromopropionic Acid [2C]	105	70-130	%	6.01						APM	

**Matrix Spike Dup (B6G0194-MSD1)**

Source: 16G0193-01

Prepared: 07/12/16 09:15 Analyzed: 07/26/16 02:05

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	21	1.0	ug/L	20.02	1.3	100	70-130	6	30	APM	
Dichloroacetic Acid [2C]	24	1.0	ug/L	20.04	3.1	103	70-130	4	30	APM	
Monobromoacetic Acid [2C]	22	1.0	ug/L	20.06	<	107	70-130	2	30	APM	
Monochloroacetic Acid	41	2.0	ug/L	40.04	<	100	70-130	2	30	APM	
Trichloroacetic Acid [2C]	21	1.0	ug/L	20.1	2.7	92	70-130	8	30	APM	
Surrogate: Bromopropionic Acid [2C]	104	70-130	%	6.01						APM	

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 Public Health Laboratory, Minnesota Department of Health



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Environmental Laboratory Section  
601 Robert St. N., P.O. Box 64899  
St. Paul, MN 55164-0899  
651-201-5300

PWSID: 1620001

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Batch B6G0189 - EPA 524.2 Prep

### Blank (B6G0189-BLK1)

Prepared: 07/12/16 15:23 Analyzed: 07/12/16 15:23

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	<	0.5	ug/L							EAS	
Bromoform	<	0.5	ug/L							EAS	
Chlorodibromomethane	<	0.5	ug/L							EAS	
Chloroform	<	0.5	ug/L							EAS	
Surrogate: 1,2-Dichlorobenzene-d4	100	70-130	%	25						EAS	
Surrogate: 1,2-Dichloroethane-d4	98	70-130	%	25						EAS	
Surrogate: 4-Bromofluorobenzene	100	70-130	%	25						EAS	
Surrogate: Dibromofluoromethane	102	70-130	%	25						EAS	
Surrogate: Toluene-d8	99	70-130	%	25						EAS	

### LCS (B6G0189-BS1)

Prepared: 07/12/16 14:37 Analyzed: 07/12/16 14:37

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	9.2	0.5	ug/L	10		92	70-130			EAS	
Bromoform	9.2	0.5	ug/L	10		92	70-130			EAS	
Chlorodibromomethane	9.1	0.5	ug/L	10		91	70-130			EAS	
Chloroform	8.6	0.5	ug/L	10		86	70-130			EAS	
Surrogate: 1,2-Dichlorobenzene-d4	102	70-130	%	25						EAS	
Surrogate: 1,2-Dichloroethane-d4	99	70-130	%	25						EAS	
Surrogate: 4-Bromofluorobenzene	99	70-130	%	25						EAS	
Surrogate: Dibromofluoromethane	103	70-130	%	25						EAS	
Surrogate: Toluene-d8	99	70-130	%	25						EAS	

### LCS Dup (B6G0189-BSD1)

Prepared: 07/12/16 23:25 Analyzed: 07/12/16 23:25

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	8.8	0.5	ug/L	10		88	70-130	5	30	EAS	
Bromoform	8.4	0.5	ug/L	10		84	70-130	9	30	EAS	
Chlorodibromomethane	8.4	0.5	ug/L	10		84	70-130	8	30	EAS	
Chloroform	8.7	0.5	ug/L	10		87	70-130	1	30	EAS	
Surrogate: 1,2-Dichlorobenzene-d4	102	70-130	%	25						EAS	
Surrogate: 1,2-Dichloroethane-d4	101	70-130	%	25						EAS	
Surrogate: 4-Bromofluorobenzene	99	70-130	%	25						EAS	
Surrogate: Dibromofluoromethane	101	70-130	%	25						EAS	
Surrogate: Toluene-d8	98	70-130	%	25						EAS	

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Public Health Laboratory, Minnesota Department of Health

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Environmental Laboratory Section  
601 Robert St. N., P.O. Box 64899  
St. Paul, MN 55164-0899  
651-201-5300

PWSID: 1620001

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Batch B6G0189 - EPA 524.2 Prep

## Work Order Comments

Samples were received in proper condition.

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Public Health Laboratory, Minnesota Department of Health