

City of Romulus

LeRoy D. Burcroff

Mayor

ADMINISTRATIVE and LEGISLATIVE OFFICES
11111 Wayne Road · Romulus, Michigan 48174-1485
www.romulusgov.com

ELLEN L. CRAIG-BRAGG

Clerk

STACY A. PAIGE

Treasurer

June 2019

Dear Resident:

Please find enclosed the 2018 Water Quality Report for the City of Romulus which was developed to provide you with important information about the quality of our drinking water. This report meets all Federal and State regulations under the Safe Drinking Water Act requiring water utilities to provide detailed information to their customers.

I am pleased to inform you that our water service meets and/or exceeds all Federal and State standards for water quality and safety. I hope you take a moment to read this packet.

In order to ensure that our tap water is safe to drink, the Environmental Protection Agency of the U.S. government prescribes regulations that limit the amount of contaminants in water provided by public health systems. The Detroit Water and Sewerage Department treats your water in accordance with EPA and State of Michigan regulations. The Food and Drug Administration also regulates limits for contaminants in bottled water to protect the public health.

Let me assure you that the City of Romulus is working hard to make sure that you receive the highest quality of water service. If you have any questions regarding the information presented herein, you may contact the Department of Public Works at (734) 942-7579, or as always, feel free to contact my office at (734) 942-7571.

Sincerely,



Mayor LeRoy D. Burcroff
City of Romulus

KATHY ABDO
Councilwoman

JOHN BARDEN
Mayor Pro Tem

CELESTE ROSCOE
Councilwoman

TINA M. TALLEY
Councilwoman

WILLIAM WADSWORTH
Councilman

EVA WEBB
Councilwoman

VIRGINIA WILLIAMS
Councilwoman

2018 Water Quality Report for the City of Romulus

The City of Romulus Department of Public Works wants you to know that your tap water is safe to drink and that it meets or surpasses all Federal and State standards for quality and safety. The Romulus D.P.W. is proud of the fine drinking water it supplies and we are honored to bring this report to you. Last year as in years past, your tap water met all U.S. and Environmental Protection Agency (EPA) and State drinking water health standards. This 2017 Water Quality Report shows the source of our water, lists the results of our tests, and contains important information regarding water and health. We are pleased to show you how we have surpassed water quality standards as mandated by the EPA and the State of Michigan DEQ. To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Microbial contaminants such as: viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic contaminants, such as salts and metals which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming, pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses. Organic chemical contaminants including synthetic and volatile organics that are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems, and radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that top water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791). If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Romulus is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale and ranges from "very low" to "very high" determined primarily using geologic sensitivity, water chemistry, and contamination sources. The report described GLWA's Detroit River source water intakes as highly susceptible to potential contamination. However, all four GLWA water treatment plants that service the City of Detroit and draw source water from the Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. GLWA voluntarily developed and receive approval in 2017 for a source water protection program (SWIPP) for the Detroit River intakes. The programs includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation and education. If you would like to know more information about the Source Water Assessment or SWIPP, contact your water department (734) 942-7579.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested (at your expense) and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800) 426-4791).

Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. Beginning in July of 2008, the Detroit Water and Sewerage Department (DWSD) began monitoring quarterly for unregulated contaminants under the Unregulated Contaminant Monitoring Rule 2 (UCMR2). All the UCMR2 contaminants monitored on List 1 and List 2 in 2008 were undetected. In addition, UCMR3 testing was completed in 2014, results from those samples were also non-detectable.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Crypto-sporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Cryptosporidium was detected twice, during a twelve-month period at our Detroit River intake plants. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

If you would like to know more about this report, please visit the Great Lakes Water Authority's website at www.GLWATER.org.

Southwest Water Treatment Plant 2018 Regulated Detected Contaminants Tables

2018 Inorganic Chemicals – Monitoring at the Plant Finished Water Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	6-12-2018	ppm	4	4	0.66	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	6-12-2018	ppm	10	10	0.41	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	5-16-2017	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

2018 Disinfection By-Products – Monitoring in Distribution System, Stage 2 Disinfection By-Products

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2018	ppb	n/a	80	42	22-42	NO	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2018	ppb	n/a	60	16	11-16	NO	By-product of drinking water disinfection

2018 Disinfectant Residuals – Monitoring in Distribution System by Treatment Plant

Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2018	ppm	4	4	0.58	0.48-0.61	no	Water additive used to control microbes

2018 Turbidity – Monitored every 4 hours at Plant Finished Water

Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.19 NTU	100 %	no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2018 Lead and Copper Monitoring at Customers' Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2018	ppb	0	15	6	1	NO	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2018	ppm	1.3	1.3	.12	1	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

**Southwest Water Treatment Plant
2018 Regulated Detected Contaminants Tables**

Regulated Contaminant	Treatment Technique 2018	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no TOC removal requirement	Erosion of natural deposits

Radionuclides 2014							
Regulated contaminant	Test date	Unit	Health Goal MCLG	Allowed Level	Level detected	Violation Yes/no	Major Sources in Drinking water
Combined Radium 226 and 228	5-13-14	pCi/L	0	5	0.65 + or - 0.54	no	Erosion of natural deposits

Contaminant	MCLG	MCL	Level Detected 2018	Source of Contamination
Sodium (ppm)	n/a	n/a	6.36	Erosion of natural deposits

GLWA voluntarily monitors for Cryptosporidium and Giardia in our untreated source water monthly. The untreated water samples collected from our Southwest plant indicated the presence of one Giardia cyst in March. In addition, monitoring indicated the presence of one Giardia cyst and one Cryptosporidium oocyst in the untreated water from the Southwest plant in July. Additional testing was performed on the treated water at the Southwest plant and Cryptosporidium was absent. All other samples collected in the year 2018 were absent for the presence of Cryptosporidium and Giardia. Systems using surface water like GLWA must provide treatment so that 99.9 percent of Giardia lamblia is removed or inactivated.

Cryptosporidium is a microbial parasite found in surface water throughout the United States. Although Cryptosporidium can be removed by filtration, the most commonly used filtration cannot guarantee 100% removal. Current test methods do not enable us to determine if these organisms are dead or alive. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy persons can overcome the disease within a few weeks. However, immuno-compromised people (such as those with AIDS, undergoing chemotherapy or recent organ transplant recipients) are at a greater risk of developing a severe, life-threatening illness. Immuno-compromised persons should contact their doctor to learn about appropriate precautions to prevent infection. Cryptosporidium must be taken in through the mouth to cause disease and it may be passed by other means than drinking water.

Springwells Water Treatment Plant 2018 Regulated Detected Contaminants Tables

2018 Inorganic Chemicals – Monitoring at the Plant Finished Water Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	6-12-2018	ppm	4	4	0.67	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	6-12-2018	ppm	10	10	0.34	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	5-16-2017	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

2018 Disinfection By-Products – Monitoring in Distribution System, Stage 2 Disinfection By-Products

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2018	ppb	n/a	80	42	22-42	NO	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2018	ppb	n/a	60	16	11-16	NO	By-product of drinking water disinfection

2018 Disinfectant Residuals – Monitoring in Distribution System by Treatment Plant

Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2018	ppm	4	4	0.68	0.63-0.69	no	Water additive used to control microbes

2018 Turbidity – Monitored every 4 hours at Plant Finished Water

Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.25 NTU	100%	no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2018 Lead and Copper Monitoring at Customers' Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2018	ppb	0	15	6	1	NO	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2018	ppm	1.3	1.3	.12	1	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

**Springwells Water Treatment Plant
2018 Regulated Detected Contaminants Tables**

Regulated Contaminant	Treatment Technique 2018	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no TOC removal requirement	Erosion of natural deposits

Contaminant	MCLG	MCL	Level Detected 2018	Source of Contamination
Sodium (ppm)	n/a	n/a	6.00	Erosion of natural deposits

GLWA voluntarily monitors for Cryptosporidium and Giardia in our untreated source water monthly. The March 2018 untreated water samples collected from the Belle Isle intake indicated the presence of one Giardia cyst. All other samples collected from the Belle Isle intake in the year 2018 were absent for the presence of Cryptosporidium and Giardia. Systems using surface water like GLWA must provide treatment so that 99.9 percent of Giardia lamblia is removed or inactivated.



**Great Lakes Water Authority
Water Quality**

RESULTS (BY TOWN) 01/01/2018 To 12/31/2018

<u>Date</u>	<u>Pt.</u>	<u>Br.</u>	<u>Sample #</u>	<u>T. Coliform</u>	<u>E. Coli</u>	<u>Cl2</u>	<u>Need Recheck</u>	<u>Recheck Date</u>
<u>Town Name: Romulus</u>								
01/04/2018	1	-	25	-	-	0.89		
01/04/2018	12	-	26	-	-	0.78		
01/10/2018	1	-	42	-	-	0.39		
01/10/2018	9	-	43	-	-	0.53		
01/17/2018	1	-	52	-	-	0.52		
01/17/2018	13	-	53	-	-	0.67		
01/23/2018	1	-	25	-	-	0.54		
01/23/2018	12	-	26	-	-	0.65		
02/05/2018	1	-	66	-	-	0.58		
02/05/2018	12	-	67	-	-	0.83		
02/07/2018	1	-	68	-	-	0.34		
02/07/2018	9	-	69	-	-	0.49		
02/14/2018	1	-	18	-	-	0.60		
02/14/2018	13	-	19	-	-	0.54		
02/27/2018	1	-	23	-	-	0.57		
02/27/2018	12	-	24	-	-	0.95		
03/01/2018	1	-	8	-	-	0.48		
03/01/2018	12	-	9	-	-	0.68		
03/12/2018	1	-	55	-	-	0.65		
03/12/2018	9	-	56	-	-	0.33		
03/21/2018	1	-	30	-	-	0.62		
03/21/2018	13	-	31	-	-	0.72		
03/26/2018	1	-	8	-	-	0.11		
03/26/2018	12	-	9	-	-	0.59		
04/05/2018	1	-	30	-	-	0.48		



**Great Lakes Water Authority
Water Quality**

RESULTS (BY TOWN) 01/01/2018 To 12/31/2018

<u>Date</u>	<u>Pt.</u>	<u>Br.</u>	<u>Sample #</u>	<u>T. Coliform</u>	<u>E. Coli</u>	<u>Cl2</u>	<u>Need Recheck</u>	<u>Recheck Date</u>
04/05/2018	12	-	31	-	-	0.74		
04/16/2018	9	-	38	-	-	0.68		
04/19/2018	1	-	19	-	-	0.56		
04/19/2018	9	-	24	-	-	0.41		
04/19/2018	13	-	20	-	-	0.62		
04/26/2018	1	-	38	-	-	0.52		
04/26/2018	12	-	39	-	-	0.69		
05/08/2018	1	-	42	-	-	0.54		
05/08/2018	12	-	43	-	-	0.66		
05/14/2018	1	-	56	-	-	0.55		
05/14/2018	9	-	57	-	-	0.51		
05/17/2018	1	-	64	-	-	0.40		
05/17/2018	13	-	65	-	-	0.61		
05/23/2018	1	-	11	-	-	0.20		
05/23/2018	12	-	12	-	-	0.55		
06/07/2018	1	-	30	-	-	0.35		
06/07/2018	12	-	31	-	-	0.53		
06/12/2018	1	-	19	-	-	0.40		
06/12/2018	9	-	20	-	-	0.26		
06/21/2018	1	-	6	-	-	0.42		
06/21/2018	13	-	7	-	-	0.57		
06/26/2018	1	-	34	-	-	0.65		
06/26/2018	12	-	35	-	-	0.66		
07/09/2018	1	-	51	-	-	0.66		
07/09/2018	12	-	52	-	-	0.61		
07/13/2018	1	-	29	-	-	0.62		
07/13/2018	9	-	30	-	-	0.34		



**Great Lakes Water Authority
Water Quality**

RESULTS (BY TOWN) 01/01/2018 To 12/31/2018

<u>Date</u>	<u>Pt.</u>	<u>Br.</u>	<u>Sample #</u>	<u>T. Coliform</u>	<u>E. Coli</u>	<u>Cl2</u>	<u>Need Recheck</u>	<u>Recheck Date</u>
07/19/2018	1	-	41	-	-	0.70		
07/19/2018	13	-	42	-	-	0.57		
07/25/2018	1	-	8	-	-	0.41		
07/25/2018	12	-	9	-	-	0.56		
08/03/2018	1	-	26	-	-	0.59		
08/03/2018	12	-	27	-	-	0.58		
08/13/2018	1	-	43	-	-	0.74		
08/13/2018	9	-	44	-	-	0.72		
08/17/2018	1	-	23	-	-	0.20		
08/17/2018	13	-	24	-	-	0.38		
08/23/2018	1	-	19	-	-	0.14		
08/23/2018	12	-	20	-	-	0.46		
09/05/2018	1	-	27	-	-	0.66		
09/05/2018	12	-	28	-	-	0.42		
09/11/2018	1	-	38	-	-	0.44		
09/11/2018	9	-	39	-	-	0.32		
09/20/2018	1	-	39	-	-	0.65		
09/20/2018	13	-	40	-	-	0.53		
09/26/2018	1	-	36	-	-	0.36		
09/26/2018	12	-	37	-	-	0.65		
10/03/2018	1	-	51	-	-	0.32		
10/03/2018	12	-	52	-	-	0.80		
10/10/2018	1	-	26	-	-	0.46		
10/10/2018	9	-	27	-	-	0.21		
10/17/2018	1	-	19	-	-	0.92		
10/17/2018	13	-	20	-	-	0.76		
10/25/2018	1	-	40	-	-	0.55		



**Great Lakes Water Authority
Water Quality**

RESULTS (BY TOWN) 01/01/2018 To 12/31/2018

<u>Date</u>	<u>Pt.</u>	<u>Br.</u>	<u>Sample #</u>	<u>T. Coliform</u>	<u>E. Coli</u>	<u>Cl2</u>	<u>Need Recheck</u>	<u>Recheck Date</u>
10/25/2018	12	-	41	-	-	0.73		
11/01/2018	1	-	40	-	-	0.15		
11/01/2018	12	-	41	-	-	0.75		
11/14/2018	1	-	25	-	-	0.80		
11/14/2018	9	-	26	-	-	0.75		
11/16/2018	1	-	47	-	-	0.84		
11/16/2018	13	-	48	-	-	0.73		
11/29/2018	1	-	24	-	-	0.60		
11/29/2018	12	-	25	-	-	0.84		
12/04/2018	1	-	64	-	-	0.78		
12/04/2018	12	-	65	-	-	0.82		
12/06/2018	1	-	48	-	-	0.90		
12/06/2018	9	-	49	-	-	0.84		
12/07/2018	1	-	19	-	-	0.81		
12/07/2018	13	-	20	-	-	1.07		
12/17/2018	1	-	6	-	-	0.85		
12/17/2018	12	-	7	-	-	0.89		

Total No. of Samples Collected: 96

Key to the Detected Contaminants Table

Symbol	Abbreviation	Definition/Explanation
>	Greater than	
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, Dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
Level 1	Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.
Level 2	Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
MRDL	Maximum Residual Disinfectant Level	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRLDG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples during the previous four quarters.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
μohms	Microhms	Measure of electrical conductance of water