Annual Drinking Water Quality Report for 2014
Village of Holley Water Department
72 Public SquareHolley, New York 14470
(Public Water Supply ID# NY3600598)
Murray Water Districts #1 (PWS ID# NY3612220) and #10 (PWS ID# NY3630045)

INTRODUCTION
To comply with State regulations, the Village of Holley, annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. Holley's water system has not violated a maximum contaminant level and this report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. Both the Village of Holley and the Town of Murray test the water for bacteriological quality at least once per month. If you have any questions about this report or concerning your drinking water, please contactMatt Campbell, Holley Electric and Water Superintendent at (585) 638-6587. We want you to be informed about your drinking water. Customers of Murray Water District # 1 may contact Ed Morgan, Town of Murray Highway and Water Superintendent at (585) 638-8507.

WHERE DOES OUR WATER COME FROM?
In general, 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 can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; DBPs; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In 2014 the Village of Holley water system received most of its water from one drilled well, the Glidden well that was drilled in the 1940's. This well produces 400 gallons per minute. In 2014 60,640,000 gallons of water was pumped from Glidden well and 26,669,000 gallons purchased from Monroe County Water Authority, 2,679,000 gallons of water was purchase from the Town of Murray for use in the industrial park and cannot be used in the village except for an emergency.

Water from the Glidden well is disinfected by the addition of a solution of gaseous chlorine as it is pumped from the ground. The chlorine is added to destroy/inactivate any pathogenic microorganisms (bacteria, viruses, parasites) that might be present in the well water. A minimal level of chlorine (residual) must be maintained in the distribution system to assure that the water remains free of pathogens and to control the growth of other non-harmful bacteria and the bio films they create. Chlorine can react with certain organic compounds in the water to create what are known as disinfection by products. The levels of disinfection by products in the distribution system have been tested since 2005, and remain well below what the EPA considers safe. The benefits of chlorine in drinking water far outweigh the risks. The average level of chlorine in the distribution system, and the range, is now reported in the table of contaminants, as are the disinfection by products.

The Village water department has been injecting polyorthophosphates into the well water since August 1999. It is added using small chemical feed pump. Polyorthophosphates is used to coat the inside of the water mains, all water service lines, and piping inside of homes and businesses. This coating action prevents lead and copper from releasing from old soldered joint copper plumbing in older structures and also helps prevent sediment from breaking-off the old water mains and services which created the discolored water we have seen in the past. The product we are using is called "Sea-Quest" and has been approved by the New York State Department of Health. The village will continue to use the polyorthophosphate per Health Department directions. If you have any questions concerning the use of polyorthophosphate, please feel free to call Matt Campbell at (585) 638-6587, or the Orleans County Health Department at (585) 589-3278.

FACTS AND FIGURES
Our water system serves approximately 2200 people through 785 service connections in the Village of Holley, plus 225 people through 46 service connections in Murray Water District # 1 located east of the Village along Route 31, and 75 people through 35 service connections in Murray Water District #10 located north of the village on Rt 237 and Lynch Road. The Village of Holley has a total of 13.5 miles of water mains, ranging in size from 4"-12". Our actions in 2013-2014 to curb water losses from private water lines, locating and repairing water main leaks, along with continuing to replace old water meters is still reducing our water losses. New York Rural water has assisted in helping us to locate water leaks and investigate water loss through out the entire Village Water System. To date we continue to look for these losses and will begin to actively seek the causes for this loss.

The cost of our water to Village residents is presently $6.10/ 1000 gal. In our continuing efforts to maintain a safe and dependable water supply, it was necessary to make improvements to your water system. The water we purchase from Monroe County Water Authority at $2.98/ 1000 gallon and the Town of Murray at $3.14/ 1000 gallon, to supply the industrial park.

SOURCE WATER ASSESSMENT PROGRAM (SWAP)
The NYSDOH has completed a source water assessment for our water system, based on available information. Possible and actual threats to our drinking water sources were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean the water delivered to consumers is, or will become contaminated. See section "Are There Contaminants in Our Drinking Water?" for a list of the contaminants that were detected.

As metioned before, our water is derived from one drilled wel (Glidden Well). The source water assessment has rated this well as having a medium-high susceptibility to halogenated solvents, herbicides/pesticides and metals. The source water assessment has also rated this well as having high susceptibility to petroleum products, industrial organics, nitrates, and microbials. These ratings are due primarily to the close proximity of a permitted discharge facility(wastewater treatment plant) and three oil and gas well. In addition, the well draw from an unconfined aquifer of unknown hydraulic conductivity. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered to your home meets New York State's drinking water standards for microbial contamination.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, lead and copper, volatile organic compounds, disinfection by products, synthetic organic compounds, andradiological. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Calling the EPA's Safe Drinking Water Hotline (800-426-4791) or Orleans County Health Department can obtain more information about contaminants and potential health effects at (585) 589-2770.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure -ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
INORGANIC CONTAMINANTS							
Chlorine	No	2014	**1.1** (1.3 -0.2)	mg/L	N/A	4 MRDL	Added to drinking water to destroy pathogenic organisms and protect water supply from bacterial contamination
Fluoride	No	2014	**<0.2**	mg/L	N/A	2.2M	Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Lead Ω	No	2014	**.0038** (1 – 9)	mg/L	0	AL=.015	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper Φ	No	2014	**.78** (0.02 – 1.8)	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Nitrate	No	2014	**1.72**	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Barium	No	2014	**0.1**	mg/L	2	2	Erosion of natural deposits.
DISINFECTION BY PRODUCTS							
Trihalomethanes ψ (TTHMs)	No	2014	**23.625** **16.77-30.48**	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Haloacetic Acids ψ (HAAs)	No	2014	**8.11** **5.25-13.27**	ug/L	N/A	60	By-product of drinking water chlorination
DISINFECTION BY PRODUCTS FOR THE TOWN OF MURRAY							
Trihalomethanes ψ(TTHMs)	No	2014	21.09	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Haloacetic Acids ψ (HAAs)	No	2014	3.17	ug/L	N/A	60	By-product of drinking water chlorination
Chlorine	No	2014	0.24	mg/L	N/A	4 MDRL	Added to drinking water to destroy pathogenic organisms and protect water supply from bacterial contamination

Notes:

Ω – The level presented represents the 90th percentile of the 20 sites tested. The 90th percentile is equal to or greater than 90% of the lead values detected at your water system. The amount of lead at most of the sites tested was very low, and none of the samples exceeded the action level.

Φ – The level presented represents the 90th percentile of the 20 sites tested. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG):The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level(AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Milligrams per liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/L):Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Maximum residual disinfection level (MDRL):The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no MCL violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Please be aware that your water is not fluoridated and you may want to discuss with your dentist the need provide supplementary treatments as necessary to help prevent tooth decay.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels in your home will be higher than at other homes in the community as a result of materials used in your home's plumbing. Stray electrical currents can also cause lead and copper to be released from the old pipes and solder in your home. The Village of Holley 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 unused for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Since a portion of Holley's water is purchased from the Monroe County Water Authority (about 38 % in 2014), a copy of their Annual Water Quality Report is included with our own.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2014, we did not compete all monitoring for stage 2 disinfection by products in the second and third quarter, and therefore cannot be sure of the quality of your drinking water during that time.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has had an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

SYSTEM IMPROVEMENTS

With the help of Rural Water leak detection, we located some leaks and repaired them to help with our water loss. This year we are making improvements to our Glidden well, looking to paint our water tower, and to replace a couple out of service fire hydrants. We will continue to use Rural Water this year to help us locate leaks to keep our water loss to a minimum.

CLOSING

The Village of Holley Water Department has made progress this past year in locating and repairing water leaks we continue to provide quality water to every tap. We thank you for allowing us to serve you providing your family with quality drinking water. Again, we want to thank you for allowing us to serve you since 1896. Please call our office at (585) 638-6587 if you have questions.
5/12/2015

MCWA - Water Quality Table

Detected Substances **2014 results except as noted**

Supply (Source): Shoremont & Webster WTPs (L.Ontario)

Substances	Units	MCLG	MCL	Range of detected values	Likely Source	Meets EPA Standards
Barium	mg/L	2	2	0.017 - 0.023	Erosion of natural deposits	Yes
Chloride	mg/L	NA	250	24 - 38	Naturally occurring	Yes
Chromium	ug/L	100	100	ND -1.4	Naturally occurring	Yes
Dacthal (DCPA)	ug/L	NA	50	ND - 0.1	Herbicide	YES
Fluoride	mg/L	NA	2.2	0.1 - 1.4	Natural and additive - promotes strong teeth	Yes
Nitrate	mg/L	10	10	0.22 - 0.34	Erosion of natural deposits	Yes
Sodium	mg/L	NA	NS	14-23	Naturally occurring	Yes
Sulfate	mg/L	NA	250	26 - 28	Naturally occurring	Yes
Treatment Requirements - 95% of samples each month must be less than 0.3 NTU. Range and lowest monthly percentage are listed. Turbidity is a measure of water clarity and is used to gauge filtration performance.						
Turbidity - Entry Point	NTUs	NA	TT	0.03 - 0.30 (100%)	Soil Runoff	Yes
Microbial - No more than 5% of monthly samples can be positive. The highest monthly % positive is listed.						
Coliform	% Positive	0	5%	ND	Naturally occurring	Yes
Disinfectant and Disinfectant By-products (DBPs) - Chlorine has a MRDL (Maximum Residual Disinfectant Level) and MRDLG (MRDL Goal) rather than an MCL and MCLG (Average and range are listed). For the DBPs (THMs and Haloactic acids) the highest individual location annual average and the range for all locations are listed.						
Chlorine Residual - Entry Point	mg/L	4	4	1.0 (0.3 - 2.4)	Additive for control of microbes	Yes
Total THMs	ug/L	NA	80	65 (7 - 86)	Byproduct of water chlorination	Yes
Haloacetic Acids	ug/L	NA	60	26 (ND - 39)	Byproduct of water chlorination	Yes
Lead and Copper - 90% of samples must be less than the Action Level (AL). The 90th Percentile, the number of samples exceeding the AL, and the range of results are listed.						
Copper (Customer Tap Samples)	mg/L	1.3	AL=1.3	0.118 (None) 0.012 - 0.320 (2012)	Corrosion of household plumbing	Yes
Lead (Customer Tap Samples)	ug/L	0	AL=15	4.9 (None) - 15 (2012)	ND Corrosion of household plumbing	Yes

Samples) g/L =15 0 u - 15 (2012) plumbing es Y

Key Terms Used In Water Quality Table

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 possible.
MCLG = Maximum Contaminant Level Goal, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL = Maximum Residual Disinfectant Level, the highest level of a 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
pCi/L = picoCuries per liter
TT = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.
AL = Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
ND = Not Detected, absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL..
NA = Not applicable **NR** = Not Required **NS** = No standard
mg/l = milligram (1/1000 of a gram) per liter = ppm = parts per million
ug/l = microgram (1/1,000,000 of a gram) per liter = ppb = parts per billion
ng/L = nanogram (1/1,000,000,000 of a gram) per liter = ppt = parts per trillion
NTU = Nephelometric Turbidity Unit, a measure of water clarity.

Note: The following contaminants were tested for but not found: 1,1,1,2-Tetrachloroethane, 1,1,1- Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2 Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, EDB, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Butadiene, 1,3,5,-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,3- Dichloropropene(Cis), 1,3-Dichloropropene(Trans), 1,3- dinitrobenzene, 1,4-Dioxane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, Dioxin, 2,4 D, 2-4-5 TP, 2-Chlorotoluene, 3-Hydroxycarbofuran, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, 4-Chlorotoluene, Acetochlor, Aldicarb Sulfone, Aldicarb Sulfoxide, Aldrin, Androstene, Antimony, Arsenic, Atrazine, Benzene, Benzo(a)pyrene, Beryllium, Bromobenzene, Bromochloromethane, Bromomethane, Butachlor, Cadmium, Carbaryl, Carbofuran, Carbon Tetrachloride, Chlordane, Chlorobenzene, Chloroethane, Chlorodifluoromethane, Chloromethane, Cobalt, cis-1,2-Dichloroethene, Cryptosporidium, Cyanide, DCPA, Dalapon, DBCP, Di(2-Ethylhexyl) Adipate, Di(2-Ethylhexyl) Phthalate, Dibromomethane, Dicamba, Dichlorodifluoromethane, Dichloromethane, Di eldrin, Dinoseb, Dioxin, Diquat, Endothall, Endrin, Equilin, Estradiol, Estriol, Estrone, Ethylbenzene, Ethynylestradiol, Giardia, Glyphosate, Gross Alpha, Gross Beta, Heptachlor, Heptachlorepoxide, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Iron, Isophorone, Isopropyl Benzene, Lindane, Mercury, Methomyl, Methoxychlor, Metolachlor, Metribuzin, MTBE, n-Butylbenzene, Nickel, Nitrite, n-Propylbenzene, Oxamyl, Paraquat, PCB's, Pentachlorophenol, Perchlorate, PFBS, PFHpA, PFHxS, PFNA, PFOA, PFOS, Pichloram, p-Isopropyltoluene, Propachlor, sec-Butylbenzene, Selenium, Silver, Simazine, Styrene, Surfactants, tert- Butylbenzene, Testosterone, Tetrachloroethene, Thallium, Toluene, Toxaphene, trans-1,2-Dichloroethene, Trichloroethene, Trichlorofluoromethane, Vinyl Chloride, Xylene, Zinc

For more information on MCWA's monitoring program call Customer Service at 585-442-7200.

Monroe County Water Authority

2014 Water Quality Monitoring Program Summary

Parameter	EPA/NYS MCL	EPA/NYS MCLG	UNITS	Shoremont WTP Lake Ontario Average	Shoremont WTP Lake Ontario Range	Shoremont WTP Lake Ontario Samples in 2014	Webster WTP Lake Ontario Average	Webster WTP Lake Ontario Range	Webster WTP Lake Ontario Samples in 2014
Inorganics, Metals, Physical Parameters									
Aluminum	NS	NS	ug/L	36	ND-58	4	57	29-110	4
Antimony	6	6	ug/L	ND		4	ND		4
Arsenic	10	0	ug/L	ND		4	ND		4
Barium	2	2	mg/L	0.020	0.017-0.023	4	0.021	0.020-0.022	4
Beryllium	4	4	ug/L	ND		4	ND		4
Cadmium	5	5	ug/L	ND		4	ND		4
Calcium	NS	NS	mg/L	35	33-36	4	34	33-35	4
Chromium	100	100	ug/L	ND	ND-1.4	4	ND		4
Copper (Distribution System)	NS	NS	ug/L	ND		4	ND	ND-2.9	4
Copper (Customer Tap Samples)	AL* = 1300	1300	ug/L	73	12-320	52 (2012)	73	12-320	52 (2012)
Cyanide	200	200	ug/l	ND		4	ND		4
Fluoride	2.2	NA	mg/L	0.8	0.1-1.4	2165	0.7	0.1-1.2	1462
Iron	300	NA	ug/L	ND		4	ND		4
Lead (Distribution System)	NS	NS	ug/L	ND		4	ND		1
Lead (Customer Tap Samples)	AL* = 15	0	ug/L	1.7	ND-15	52 (2012)	1.7	ND-15	52 (2012)
Magnesium	NS	NS	mg/L	9.2	8.9-9.4	4	9.0	8.6-9.2	4
Manganese	300	NA	ug/L	ND		4	ND		4
Mercury	2	2	ug/L	ND		4	ND		4
Nickel	100	NA	ug/L	ND		4	ND		4
Nitrate	10	10	mg/L	0.32	0.26-0.35	4	0.25	0.22-0.35	4
Nitrite	1	1	mg/L	ND		4	ND		4
Potassium	NS	NS	mg/L	1.7		1	1.5		1
Selenium	50	50	ug/L	ND		4	ND		4
Silica	NS	NS	mg/L	0.6	0.5-0.9	4	0.5	0.4-0.6	4
Silver	100	NA	ug/L	ND		4	ND		1
Sodium	NS	NS	mg/L	15	14-15	4	19	16-23	4
Sulfate	250	NA	mg/L	28	27-29	4	27	26-28	4
Thallium	2	0.5	ug/L	ND		4	ND		4
Zinc	5	NA	mg/L	ND		4	ND		4
Alkalinity	NS	NA	mg/L	83	78-87	4	86	79-90	4
Chlorides	250	NA	mg/L	24	24-25	4	29	24-38	4
Color	15	NA	Color Units	ND		4	ND		4
Conductivity	NS	NS	umhos/cm	300	290-310	35	NR		
pH	NS	NS	pH units	7.4	7.1-7.8	362	7.5	7.0-7.9	278
Total Dissolved Solids	NS	NS	mg/L	165	150-180	4	180	160-210	4
Total Hardness	NS	NS	mg/L	125	120-130	4	120		4
Total Organic Carbon	NS	NS	mg/L	1.6	1.4-1.7	4	1.1	0.8-1.5	4
Surfactants	NS	NS	mg/L	ND		4	ND		4
Turbidity - Entry Point	TT **	NA	NTUs	0.05	0.03-0.09	2190	0.04	0.03-0.30	1512
Turbidity - Distribution System	TT ***	NA	NTUs	0.09	0.03-2.1	4327	0.09	0.03-2.1	4327
Chlorine Residual - Entry Point	NA	NA	mg/L	1.1	0.8-2.4	2184	0.8	0.3-1.3	1539
Chlorine Residual - Retail Dist.System	TT ****	NA	mg/L	0.6	ND-2.2	4356	0.6	ND-2.2	4356
Coliform - Retail Dist.System	TT *****	0	%Positive	ND		4345	ND		4345
Cryptosporidium	NS	NS	#Positive	ND		1	ND		1
Giardia	NS	NS	#Positive	ND		1	ND		1
Asbestos (Distribution System)	7	7	MF/L	ND		1 (2007)	ND		1(2007)

Radionuclides									
Gross Alpha	15	0	pCi/L	ND		1 (2012)	ND		1
Gross Beta	50	0	pCi/L	ND		1 (2012)	ND		1
Combined Radium 226/228	5	0	pCi/L	ND		1 (2012)	ND		1
Uranium	30	0	pCi/L	ND		1 (2012)	ND		1
Volatile Organics									
Benzene	5	0	ug/L	Not Detected		4	Not Detected		4
Bromobenzene	5	NA	ug/L			4			4
Bromochloromethane	5	NA	ug/L			4			4
Bromomethane	5	NA	ug/L			4			4
n-Butylbenzene	5	NA	ug/L			4			4
sec-Butylbenzene	5	NA	ug/L			4			4
tert-Butylbenzene	5	NA	ug/L			4			4
Carbon Tetrachloride	5	0	ug/L			4			4
Chlorobenzene	5	NA	ug/L			4			4
Chloroethane	5	NA	ug/L			4			4
Chloromethane	5	NA	ug/L			4			4
2-Chlorotoluene	5	NA	ug/L			4			4
4-Chlorotoluene	5	NA	ug/L			4			4
Dibromomethane	5	NA	ug/L			4			4
1,2-Dichlorobenzene	5	NA	ug/L			4			4
1,3-Dichlorobenzene	5	NA	ug/L			4			4
1,4-Dichlorobenzene	5	NA	ug/L			4			4
Dichlorodifluoromethane	5	NA	ug/L			4			4
1,1 Dichloroethane	5	NA	ug/L			4			4
1,2-Dichloroethane	5	0	ug/L			4			4
1,1-Dichloroethene	5	NA	ug/L			4			4
cis-1,2-Dichloroethene	5	NA	ug/L			4			4
trans-1,2-Dichloroethene	5	NA	ug/L			4			4
1,2-Dichloropropane	5	0	ug/L			4			4
1,3-Dichloropropane	5	NA	ug/L			4			4
2,2-Dichloropropane	5	NA	ug/L			4			4
1,1-Dichloropropene	5	NA	ug/L			4			4
1,3-Dichloropropene(Cis)	5	NA	ug/L			4			4
1,3-Dichloropropene(Trans)	5	NA	ug/L			4			4
Ethylbenzene	5	NA	ug/L			4			4
Hexachlorobutadiene	5	NA	ug/L			4			4
Isopropylbenzene	5	NA	ug/L			4			4
p-Isopropyltoluene	5	NA	ug/L			4			4
Methyl Tert-butyl ether (MTBE)	10	NA	ug/L			4			4
Methylene Chloride (Dichloromethane)	5	0	ug/L			4			4
n-Propylbenzene	5	NA	ug/L			4			4
Styrene	5	NA	ug/L			4			4
1,1,1,2-Tetrachloroethane	5	NA	ug/L			4			4
1,1,2,2-Tetrachloroethane	5	NA	ug/L			4			4
Tetrachloroethene	5	0	ug/L			4			4
Toluene	5	NA	ug/L			4			4
1,2,3-Trichlorobenzene	5	NA	ug/L			4			4
1,2,4-Trichlorobenzene	5	NA	ug/L			4			4

1,1,1-Trichloroethane	5	NA	ug/L			4		4
1,1,2-Trichloroethane	5	3	ug/L			4		4
Trichloroethene	5	0	ug/L			4		4
Trichlorofluoromethane	5	NA	ug/L			4		4
1,2,3-Trichloropropane	5	NA	ug/L			4		4
1,2,4-Trimethylbenzene	5	NA	ug/L			4		4
1,3,5-Trimethylbenzene	5	NA	ug/L			4		4
Vinyl Chloride	2	0	ug/L			4		4
Xylenes	5	NA	ug/L			4		4
Organics, Pesticides, Herbicides								
1, 2-Dibromo-3-Chloropropane	200	0	ng/L			1		1
1, 2-Dibromoethane (EDB)	50	0	ng/L			1		1
2, 4, 5-TP (Silvex)	10	NA	ug/L			1		1
2, 4-D	50	NA	ug/L			1		1
3-Hydroxycarbofuran	50	NS	ug/L			1		1
Alachlor	2	0	ug/L			4		4
Aldicarb	3	1	ug/L			1		1
Aldicarb Sulfone	2	1	ug/L			1		1
Aldicarb Sulfoxide	4	1	ug/L			1		1
Aldrin	5	NA	ug/L			4		4
Atrazine	3	3	ug/L			4		4
Benzo(a)pyrene	200	0	ng/L			4		4
Bis(2-Ethylhexyl)Phthalate	6	0	ug/L			4		4
Butachlor	50	NA	ug/L			4		4
Carbaryl	50	NA	ug/L			1		1
Carbofuran	40	40	ug/L			1		1
Dalapon	50	NA	ug/L			1		1
DCPA, Mono & Di-Acid Degradate	50	NS	ug/L	ND	ND - 0.14	4	ND	ND - 0.14	4
Di(2-Ethylhexyl) Adipate	50	NA	ug/L			4		4
Dicamba	50	NA	ug/L			1		1
Dieldrin	5	NA	ug/L			4		4
Dinoseb	7	7	ug/L			1		1
Dioxin	30	0	pg/L			1		1
Diquat	20	20	ug/L			1		1
Endothall	50	NA	ug/L			1		1
Endrin	2	2	ug/L			4		4
Glyphosate	50	NA	ug/L			1		1
Heptachlor	400	0	ng/L			4		4
Heptachlor Epoxide	200	0	ng/L			4		4
Hexachlorobenzene	1	0	ug/L			4		4
Hexachlorocyclopentadiene	5	NA	ug/L			4		4
Isophorone	50	NA	ug/L			4		4
Lindane (gamma-BHC)	200	200	ng/L			4		4
Methomyl	50	NA	ug/L			1		1
Methoxychlor	40	40	ug/L			4		4
Metolachlor	50	NA	ug/L			4		4
Metribuzin	50	NA	ug/L			4		4
Oxamyl	50	NA	ug/L			1		1
p,p' DDD	5	NA	ug/L			4		4
p,p' DDE	NS	NS	ug/L			4		4
p,p' DDT	5	NA	ug/L			4		4
PCB's Total	500	0	ng/L			4		4
Pentachlorophenol	1	0	ug/L			4		4

Not Detected

Not Detected

Not Detected

Not Detected

Perchlorate	NS	NS	ug/L	Not Detected		1	Not Detected		1
Pichloram	50	NA	ug/L			1			1
Propachlor	50	NA	ug/L			4			4
Simazine	4	4	ug/L			4			4
Total Chlordane	2	0	ug/L			4			4
Toxaphene	3	0	ug/L			4			4
Disinfectant Byproducts									
Total THMs	80	NA	ug/L	45	7-86	48	45	7-86	48
Haloacetic Acids	60	NA	ug/L	13	ND-39	48	13	ND-39	48

Key

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 possible.

MCLG = Maximum Contaminant Level Goal, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

TT = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

AL* = Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. If >10% of results are greater than 15 ug/l for lead or 1.3 mg/L for copper, remediative steps are required. In MCWA's combined retail area, 90% of the samples were less than 4.3 ug/L for lead and 0.100 mg/L for copper.

mg/l = milligram (1/1,000 of a gram) per liter = ppm = parts per million
ug/l = microgram (1/1,000,000 of a gram) per liter = ppb = parts per billion
ng/L = nanogram (1/1,000,000,000 of a gram) per liter = ppt = parts per trillion
pg/L = picogram (1/1,000,000,000,000 of a gram) per liter = ppq = parts per quadrillion
pCi/L = picoCuries per liter
NTU = Nephelometric turbidity Unit, a measure of the clarity of water.
MF/L = million fibers per liter, a measure of the presence of asbestos fibers longer than 10 micrometers.
(year) = Most recent testing. Monitoring frequency requirements vary depending on compound.
Not Detected = ND = absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL.

NA = Not applicable **NR** = Not required **NS** = No standard **NT** = Not Tested
umhos/cm = micro ohms per centimeter
Cont = Continuously monitored via online instrumentation.

** = 95% of measurements within a given month must be less than 0.3 NTUs.
*** = Average of monthly distribution system turbidity samples must be less than 5.0 NTUs.
**** = 95% of monthly distribution system samples must have a measurable chlorine residual.
***** = No more than 5% of monthly samples can be positive.

Note: Total Hardness is also expressed in grains per gallon. The Total Hardness of the Ontario and Hemlock supplies are 7.6 and 5.6 grains per gallon respectively.