2022 CONSUMER CONFIDENCE REPORT

# WATER QUALITY REPORT

The Lake County Department of Utilities East and West Sub-District

### WATER THAT IS CLEAN & SAFE

- Our Mission
- Source Water Information
- Contaminants Report
- Lead Pipes
- Freezing Pipes
- Tap vs. Bottle





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## OUR MISSION Keep Lake County Clean & Safe

### **DIVISION OF WATER**



East and West Sub-Districts

This brochure is a summary of the water quality provided to our customers in 2022. It includes details about where your water comes from, how it is processed, what it contains, and how it meets the standards set by the Federal and the Ohio EPA. We are pleased to provide this information to you.

The Lake County Department of Utilities' three divisions – Water, Wastewater, and Solid Waste – work together to keep Lake County clean and safe by providing exceptional water, sanitary sewer treatment, and landfill administration.



Water + Sewer + Solid Waste

We all want a thriving community that is clean and safe for all to enjoy. The pleasures and the cost of safe drinking water belong to all of us; and paying your utility bill is an investment in our water future. The Lake County Department of Utilities is committed to bringing exceptional water service to your community, which keeps Lake County healthy!

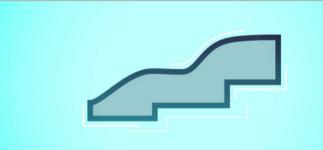




## PUBLIC WATER Where Does It Come From?

From the moment you turn on your faucet to the time your water bill arrives, it is interesting to know where your public water comes from. Your drinking water originates from beautiful Lake Erie, where two large intake pipes located below the lake's surface transport the water back to shore.

From there your water is cleaned, filtered, disinfected and constantly tested by professionals until it is safe for you to drink. Your future tap water is then pumped into a distribution system, which sends water into hundreds of miles of underground pipe and into nine Lake County water storage facilities.



Our water system is constantly monitored, tested, maintained and repaired. This is how water arrives where you need it, making it available for showering, washing clothes, cooking meals, watering your lawn, putting out fires and making cool, refreshing lemonade.

The Lake County Department of Utilities operates and maintains two drinking water systems—the East Sub-District and the West Sub-District. The East Sub-District provides water to Perry Village, North Perry Village, Madison Village, Perry Township, Madison Township, Unionville, and portions of Geneva and Painesville. The West Sub-District provides water to Eastlake, Willoughby, Willowick, Wickliffe, Willoughby Hills, Lakeline, Timberlake, and portions of Kirtland. The department also has interconnections with other area water systems, but these are for emergency use only.

**PUBLIC PARTICIPATION IN YOUR WATER SYSTEM:** See LakeCountyOhio.gov for scheduled public meetings. If you are interested in more information about water quality, please call our lab at 440-918-3420.



# 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 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 organic chemicals, which are byproducts 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. Food and 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 the general population. Immunocompromised 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 infection. 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 (1-800-426-4791).

## CONTAMINANTS

### WHAT MAY BE PRESENT IN YOUR SOURCE WATER

The Lake County Department of Utilities operates and maintains two drinking water systems. By maintaining an unconditional license to operate our water system, we treat your water according to the highest standards to ensure that you and your family receive the best possible product.

We are fortunate to have Lake Erie as our source of water. This body of water is classified as a *surface supply source*, and serves as a valuable resource for drinking water to millions of Ohio's residents. 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.

The Lake County East and West Sub-District Public Water Systems use surface water drawn from Lake Erie. For the purposes of source water assessments, in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens with a relatively short travel time from source to intake.

Although the Lake County East and West Sub-District intakes are located offshore in Lake Erie, the proximity of the Grand River to the East Sub-District's intake and the Chagrin River to the West Sub-District's intake increases the susceptibility of the source water to contamination. The Lake County East and West Sub-District drinking water source protection areas contain a moderate number of

potential contaminant sources, which include:

Accidental spills and releases associated with commercial shipping and recreational boating
Air contaminant deposition

(continued on page 6)

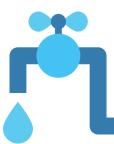
### LEAD PIPES

How it effects water

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 Lake County Utilities Water Division 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 thirty seconds to two 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 at 800-426-4791 or at www.epa.gov/safewater/lead.



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## CONTAMINANTS

### CONTINUED FROM PAGE 5

- Contaminants from industries and agricultural runoff along the shore and along streams (Grand and Chagrin Rivers) that empty into the lake
- Contaminants associated with oil and gas production and transportation
- Sediments from river dredging, disposal operations, and natural erosional processes
- Contaminated stormwater runoff, municipal and home sewage treatment system discharges, and combined sewer overflows

Although the Lake County East and West Sub-District Public Water Systems treat water to meet drinking water quality standards, no single treatment technique can address all potential contaminants. The likelihood for water quality impacts can be further decreased by implementing measures to protect Lake Erie and both the Grand and Chagrin Rivers. More detailed information is provided in the Lake County East and West Sub-District Drinking Water Source Assessment reports. Please contact the East Sub-District Superintendent at 440-350-2155 and the West Sub-District Superintendent at 440-918-3420 for more information pertaining to the reports.

Soil erosion is the major factor impacting Lake Erie waters. The wearing away of the shoreline results in overall cloudiness – known as *turbidity*. We measure samples of water with sensitive instruments that can detect slight changes in cloudiness that are imperceptible to the human eye. We continually assess these changes in turbidity so that treatment can be optimized by adjusting pretreatment and filtration processes to achieve maximum effectiveness.

The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported in the table, the highest recorded turbidity result for 2022 was 0.21 NTU for Lake County East and 0.10

NTU for Lake County West. The lowest monthly percentage of samples meeting the turbidity limits was 100% for both.



### When leaves fall, don't stall. Water off.

When temperatures drop, water inside pipes can freeze and expand. This can cause the pipes to burst, leading to flooding and major damage to your home and property. Pipes in garages, crawl spaces, attics and outside walls are all vulnerable to freezing, especially if there are cracks or openings that allow cold outside air to flow across the pipes. You may not notice a water break right away while it is frozen, but as temperatures rise, it will usually appear and cause damage.

If a pipe bursts due to freezing temperatures, immediately close the main shut-off valve. Knowing the location of the shut-off valve, and making sure it is operable, is critical. Once the water is shut off, use an electric hair dryer or portable space heater to help thaw the pipe. Never use a blowtorch or other devices that could start a fire. For snowbirds, The Lake County Department of Utilities can shut the water off at the street. This service is FREE and can provide you peace of mind all season.

\*Requires, at minimum, a 24-hour notice for turning on and off.

## Lake County Ensures Excellent Drinking Water

## The tables within are a summary of the water quality characteristics for each of the Lake County Department of Utilities - East and West Sub-Districts.

Definitions of some terms contained within this report:

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

**Maximum Contaminant Level (MCL)** is 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.

Maximum Contaminant Level Goal (MCLG) is 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.

Maximum Residual Disinfectant Level (MRDL) is the highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) is the level of 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 contaminants.

N/A is Non-applicable.

ND is Non-Detected.

**NTU** is Nephelometric Turbidity Unit.

PPM is Parts Per Million.

**PPB** is Parts Per Billion. When reviewing results, the concentration of contaminants are expressed in parts per million or parts per billion. See illustrations to help visualize.

Total Organic Carbon (TOC) is the value reported is the lowest ratio between the percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements. Treatment Technique (TT) is a required process intended to reduce the level of a contaminant in drinking water. Variance and exemption is state or EPA permission not to meet an MCL or a treatment technique under certain conditions. µg/L is Micrograms per Liter or 1 part in a billion parts (PPB).

**"<" Symbol** is a symbol that means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminants in that sample were not detected.

TTHMs and HAA5 are created by the disinfection process.





1 drop in a 10 gallon bucket



PPB equals 1 drop in a 10,000 gallon pool.

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TABLE OF DETECTED CONTAMINANTS - Lake County East Sub-District											
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants				
<b>Microbiological Contamina</b>	ants										
Turbidity (NTU)	N/A	TT (NTU)	0.21	0.04 - 0.21	No	2022	Soil Runoff				
Turbidity (% samples meeting standard)	N/A	TT (NTU)	100%	100%	No	2022	Soil Runoff				
Total Organic Carbon (TOC)*	N/A	TT	1.0	1.0-1.4	No	2022	Naturally present in environment				
Inorganic Contaminants											
Barium (ppm)	2	2	0.02	0.02	No	2022	Erosion from natural deposits				
Fluoride(ppm)	4	4	1.16	0.95 - 1.25	No	2022	Water additive which promoted strong teeth				
Nitrate (ppm)	10	10	0.62	<0.10 - 0.62	No	2022	Run off from fertilizer use, Leaching from septic tanks				
Disinfection By-products											
Haloacetic Acids (HAA5) (ppb)	N/A	60	33.4	9.0 - 58.2	No	2022	By-product of drinking water disinfection				
Total Trihalomethanes (TTHM) (ppb)	N/A	80	57.5	20.2 - 74.9	No	2022	By-product of drinking water disinfection				
Residual Disinfectants											
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.5	1.3 - 1.7	No	2022	Water additive used to control microbes				
Contaminants (units)	AL Results over 90% of test the AL levels were Violation Sampled Typical source		Typical source of Contaminants								
Inorganic Contaminants											
Lead (ppb)	15	19		2.2	No	2021	Corrosion of household plumbing systems; erosion of natural deposits				
	One of 30 samples were four			to have lead leve	els in excess o	of the lead a	ction level of 15 ppb.				
Copper (ppm)	1.3	0		0.160	No	2021	Corrosion of household plumbing systems; erosion of natural deposits				
	Zero of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.										

TABLE OF DETECTED CONTAMINANTS - Lake County West Sub-District										
Contaminants (Units)	MCLG	MCL	Level Found	Range of	Violation	Sample Year	Typical Source of Contaminants			
Microbiological Contaminants										
Turbidity (NTU)	N/A	TT (NTU)	0.10	0.02 - 0.10	No	2022	Soil Runoff			
Turbidity (% samples meeting standard)	N/A	TT (NTU)	100%	100%	No	2022	Soil Runoff			
Total Organic Carbon (TOC)*	N/A	TT	1.0	1.0 - 1.4	No	2022	Naturally present in environment			
Inorganic Contaminants	Inorganic Contaminants									
Barium (ppm)	2	2	0.018	0.018	No	2022	Erosion from natural deposits			
Fluoride(ppm)	4	4	0.89	0.70 - 1.03	No	2022	Water additive which promoted strong teeth			
Nitrate (ppm)	10	10	0.75	<0.10 - 0.75	No	2022	Run off from fertilizer use, Leaching from septic tanks			
Disinfection By-products										
Haloacetic Acids (HAA5) (ppb)	N/A	60	25.1	8.1 - 41.2	No	2022	By-product of drinking water disinfection			
Total Trihalomethanes (TTHM) (ppb)	N/A	80 54.4		13.7 - 69.0	No	2022	By-product of drinking water disinfection			
Residual Disinfectants										
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.3	1.2 - 1.4	No	2022	Water additive used to control microbes			
Contaminants (units)	AL	Results over the AL		90% of test levels were less than or equal to	Violation	Year Sampled	Typical source of Contaminants			
Inorganic Contaminants										
Lead (ppb)	Lead (ppb) 15 0			<2.0	No	2020	Corrosion of household plumbing systems; erosion of natural deposits			
	Zero of 30 samples were fou		/ere found	to have lead lev	els in excess o	of the lead a	ction level of 15 ppb.			
Copper (ppm)	1.3	.3 0		0.083	No	2020	Corrosion of household plumbing systems; erosion of natural deposits			
	Zero of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.									

\*The value reported under "Level Found" for Total Organic Carbon (TOC) compliance ratio is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.



#### Unregulated Contaminants Detected

	Lake (	County Ea	st Sub-District	Water	Lake County West Sub-District Water					
	Sample Point	Avg. Level Found	Range of Detection	Year Sampled	Sample Point	Avg. Level Found	Range of Detection	Year Sampled		
Haloacetic Acids (HAA5) (ppb)*	Distribution	24.1	13.7 - 37.0	2018-2019	Distribution	19.9	5.8 - 30.8	2018-2019		
Haloacetic Acids (HAA6Br) (ppb)*	Distribution	11.8	7.4 - 16.7	2018-2019	Distribution	11.8	7.4 - 16.7	2018-2019		
Haloacetic Acids (HAA9) (ppb)*	Distribution	34.9	22.2 - 51.9	2018-2020	Distribution	29.3	10.7 - 43.3	2018-2020		
Manganese (ppb)	Entry Point	3.3	2.4 - 5.2	2018-2019	Entry Point	1.7	1.1 - 3.4	2018-2019		

\*Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. The results in this table are from sampling done for the Unregulated Contaminant Monitoring Rule. For a copy of Lake County West results, call 440-918-3420. For a copy of Lake County East results, call 440-350-2155.



## LAKE COUNTY Tall Tree Pressure District – Cleveland Water Source of Supply

Cleveland Water has a current, unconditional license to operate their water system. Cleveland Water draws source water from four intakes located far offshore in Lake Erie's Central Basin. These intakes are spread out over 15 miles and are each 3 to 5 miles offshore where the water is cleaner and has been minimally impacted from tributary runoff and coastal activities. Lake Erie is considered to be a surface water source. Cleveland Water also has interconnections with other area water systems, but these are for emergency use only. These interconnections are designed for Cleveland Water to assist other water systems if needed. In 2022, Lake County Department of Utilities' Tall Tree Pressure district area received water as a primary source from Cleveland Water.

Water enters Lake Erie from precipitation over the lake and watershed. Precipitation on land runs off and flows down streams and rivers into our source water. About 90% of the water entering Lake Erie flows down the Detroit River from Lake St. Clair; another 4% drains from the Maumee River. Both rivers flow into the lake's shallow Western Basin. The remaining runoff drains through dozens of rivers and streams into the lake or off the land along the shore directly into the water. The actions of people on land in Lake Erie's 30,149 square mile watershed can impact the quality of water in Lake Erie. Protecting our drinking water source from contamination is the responsibility of all area residents.

The state of Ohio performed an assessment of our four source water intakes in the late 1990s. A Drinking Water Source Assessment Report was completed in 2003. For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be easily contaminated by chemicals and pathogens from an upstream spill. Because Cleveland Water's intakes are located a considerable distance offshore, potential contamination from the Cuyahoga River and nearshore sources is minimized to a great degree. As a result, Ohio EPA considers Cleveland Water's source water to have a low susceptibility to contamination due to the location of the intakes.

The Cleveland Water public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. To address this, Cleveland Water uses the multiple barrier approach for protecting and treating our source water. Protection of source water is one of the barriers we use. The potential for water quality impacts can be further decreased by implementing measures to protect Lake Erie. More detailed information is provided in the Cleveland Water Drinking Water Source Assessment Report which can be obtained by calling our Risk Management Section at 216-664-2444 x75838.

## LAKE COUNTY Pinecrest District Source of Supply

Lake County Department of Utilities operates and maintains two drinking water systems. We have a current, unconditional license to operate our water system. Water is treated and disinfected before delivery to you. We take every precaution necessary to see that you and your family are getting the best possible product. With that said, residents of the Lake County Pinecrest subdistrict receive water that has been treated by Aqua Lake Shore Division – Lake County water treatment facility.

Water for Aqua's Lake Shore Division – Lake County comes from Lake Erie. For the purpose of source water assessments, in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens with relatively short travel times from source to intake. Although Aqua's surface water intake is located offshore in Lake Erie, the proximity of several onshore sources increases the susceptibility of the source water to contamination. The Lake Shore Division – Lake County system's drinking water source protection area is susceptible to contamination from municipal wastewater treatment discharges, runoff from residential, agricultural, and urban areas, oil and gas production and transportation and accidents, releases and spills from vehicular traffic as well as from commercial shipping operations and recreational boating. Aqua treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Lake Erie. More detailed information is provided in Aqua's Lake Shore Division – Lake County water system Drinking Water Assessment report, which can be obtained by calling Aqua at 877-987-2782.

Lake Erie is classified as a surface supply and serves as a valuable resource for drinking



water to millions of Ohio's residents. 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.

TABLE OF DETECTED CONT	AMINAN	TS - Lake	County	Tall Tree Press	ure Distric	t - Clevela	nd Water	
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants	
Microbiological Contamina	ants							
Turbidity (NTU)	N/A	TT (NTU)	0.25	0.02 - 0.25	No	2022	Soil Runoff	
Turbidity (% samples meeting standard)	N/A	TT (NTU)	100%	100%	No	2022	Soil Runoff	
Total Organic Carbon (TOC)*	N/A	TT	1.3	1.3 - 1.4	No	2022	Naturally present in environment	
Inorganic Contaminants Fluoride (ppm)	4	4	0.99	0.80 - 1.25	No	2022	Water addition which are ented strong to the	
riuoride (ppm)							Water additive which promoted strong teeth Discharge from steel/metal factories; Discharge	
	200	200	12	12	No	2022	from plastic and fertilizer factories	
Cyanide (ppb)	The MCL i many year Cleveland	e reported value for Cyanide is 12 ppb, which is barely above the ability for the laboratory to even meas MCL is 200 ppb (or 17 times higher than what was measured). Cleveland Water has not had a cyanide ny years, and the other three plants had no detection, as usual. While the result for Nottingham is legit veland Water believes it to be an anomaly with no apparent cause. Future monitoring will determine if uires further investigation by Cleveland Water.						
Nitrate as Nitrogen (ppm)	10	10	0.86	ND - 0.86	No	2022	Run off from fertilizer use, Leaching from septi	
Disinfection By-Products							tanks	
Haloacetic Acids (HAA5) (ppb)	N/A	60	19.6	6.6 - 20.3	No	2022	By-product of drinking water disinfection	
Total Trihalomethanes (TTHM)	N/A	80	35.9	10.4 - 47.7	No	2022	By-product of drinking water disinfection	
(ppb) Residual Disinfectants								
Total Chlorine (ppm)	MRDLG =	MRDL =	1.21	1.15 - 1.32	No	2022	Water additive used to control microbes	
iotal chionne (ppm)	4	4 Results		90% of test	NO		water additive used to control microbes	
Contaminants (units)	AL	the d		levels were	Violation	Year Sampled	Typical source of Contaminants	
Inorganic Contaminants		1					Corrosion of household plumbing systems;	
Lead (ppb)	15	0		2.3	No	2021	erosion of natural deposits	
		samples were four			No No		ction level of 15 ppb. Corrosion of household plumbing systems;	
Copper (ppm)	1.3 0			0.1		2021	erosion of natural deposits	
	7							
							per action level of 1.3 ppm.	
TABLE OF DETECTED CONT			County	Pinecrest Dist	rict	ss of the cop		
				Pinecrest Dist Range of				
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina	MCLG	TS - Lake	County Level	Pinecrest Dist Range of	rict	ss of the cop	per action level of 1.3 ppm. Typical Source of Contaminants	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina Turbidity (NTU)	MCLG	TS - Lake	County Level	Pinecrest Dist Range of	rict	ss of the cop	per action level of 1.3 ppm.	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina	AMINAN MCLG ants	TS - Lake MCL	County Level Found	Pinecrest Dist Range of Detections	rict Violation	Sample Year	per action level of 1.3 ppm. Typical Source of Contaminants	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina Turbidity (NTU) Turbidity (% samples meeting standard) Total Organic Carbon (TOC)*	AMINAN MCLG ants N/A	TS - Lake MCL TT (NTU)	County Level Found	Pinecrest Dist Range of Detections	violation No	Sample Year	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina Turbidity (NTU) Turbidity (% samples meeting standard) Total Organic Carbon (TOC)* Inorganic Contaminants	AMINAN MCLG ants N/A N/A N/A	Т <b>S - Lake MCL</b> ТТ (NTU) ТТ (NTU) ТТ	County Level Found 0.22 100% 0.82	Pinecrest Dist           Range of           Detections           0.03 - 0.22           100%           0.11 - 1.23	No No No	Sample Year 2022 2022 2022	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff Soil Runoff Naturally present in environment	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina Turbidity (NTU) Turbidity (% samples meeting standard) Total Organic Carbon (TOC)* Inorganic Contaminants Barium (ppm)	AMINAN MCLG ants N/A N/A N/A 2	Т5 - Lake MCL ТТ (NTU) ТТ (NTU) ТТ 2	County Level Found 0.22 100% 0.82	Pinecrest Dist Range of Detections 0.03 - 0.22 100% 0.11 -1.23	No No No No No	Sample Year 2022 2022 2022 2022	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff Soil Runoff Naturally present in environment Erosion from natural deposits	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina Turbidity (NTU) Turbidity (% samples meeting standard) Total Organic Carbon (TOC)* Inorganic Contaminants Barlum (ppm) Chromium (ppb)	AMINAN MCLG ants N/A N/A N/A 2 100	Т5 - Lake MCL ТТ (NTU) ТТ (NTU) ТТ 2 100	County Level Found 0.22 100% 0.82 0.018 1.2	Pinecrest Dist           Range of Detections           0.03 - 0.22           100%           0.11 - 1.23           0.017           1.2	No No No No No No No	Sample Year 2022 2022 2022 2022 2022 2022 2022	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff Soil Runoff Naturally present in environment Erosion from natural deposits Discharge from steel and pulp mills; erosion of natural deposits	
TABLE OF DETECTED CONT Contaminants (Units) Microbiological Contamina Turbidity (NTU) Turbidity (% samples meeting standard) Total Organic Carbon (TOC)* Inorganic Contaminants Barium (ppm) Chromium (ppb) Fluoride(ppm)	AMINAN MCLG ants N/A N/A N/A N/A 2 100 4	ТS - Lake MCL ТТ (NTU) ТТ (NTU) ТТ 2 100 4	County Level Found 0.22 100% 0.82 0.018 1.2 0.97	Pinecrest Dist Range of Detections 0.03 - 0.22 100% 0.11 -1.23 0.017 1.2 0.81 -1.14	No No No No No No No No	Sample Year 2022 2022 2022 2022 2022 2022 2022 20	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff Soil Runoff Naturally present in environment Erosion from natural deposits Discharge from steel and pulp mills; erosion of natural deposits Water additive which promoted strong teeth	
TABLE OF DETECTED CONT         Contaminants (Units)         Microbiological Contaminants         Turbidity (NTU)         Turbidity (% samples meeting standard)         Total Organic Carbon (TOC)*         Inorganic Contaminants         Barium (ppm)         Chromium (ppb)         Fluoride(ppm)         Nitrate (ppm)	AMINAN MCLG ants N/A N/A N/A 2 100	Т5 - Lake MCL ТТ (NTU) ТТ (NTU) ТТ 2 100	County Level Found 0.22 100% 0.82 0.018 1.2	Pinecrest Dist           Range of Detections           0.03 - 0.22           100%           0.11 - 1.23           0.017           1.2	No No No No No No No	Sample Year 2022 2022 2022 2022 2022 2022 2022	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff Soil Runoff Naturally present in environment Erosion from natural deposits Discharge from steel and pulp mills; erosion of natural deposits Water additive which promoted strong teeth	
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TABLE OF DETECTED CONT         Contaminants (Units)         Microbiological Contaminants         Turbidity (NTU)         Turbidity (% samples meeting standard)         Total Organic Carbon (TOC)*         Inorganic Contaminants         Barium (ppm)         Chromium (ppb)         Fluoride(ppm)         Nitrate (ppm)         Disinfection By-products         Haloacetic Acids (HAA5) (ppb)         Total Trihalomethanes (TTHM) (ppb)	AMINAN MCLG ants N/A N/A N/A 2 100 4 10	TS - Lake           MCL           TT (NTU)           TT (NTU)           TT           2           100           4           10	County Level Found 0.22 100% 0.82 0.018 1.2 0.97 0.57	Pinecrest Dist Range of Detections 0.03 - 0.22 100% 0.11 -1.23 0.017 1.2 0.81 -1.14 <0.10 - 0.57	No No No No No No No No No	Sample Year 2022 2022 2022 2022 2022 2022 2022 20	per action level of 1.3 ppm. Typical Source of Contaminants Soil Runoff Soil Runoff Naturally present in environment Erosion from natural deposits Discharge from steel and pulp mills; erosion of natural deposits Water additive which promoted strong teeth Run off from fertilizer use, Leaching from septi tanks	
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TABLE OF DETECTED CONT         Contaminants (Units)         Microbiological Contamina         Turbidity (NTU)         Turbidity (% samples meeting standard)         Total Organic Carbon (TOC)*         Inorganic Contaminants         Barium (ppm)         Chromium (ppb)         Fluoride(ppm)         Nitrate (ppm)         Disinfection By-products         Haloacetic Acids (HAA5) (ppb)         Total Trihalomethanes (TTHM) (ppb)         Residual Disinfectants         Total Chlorine (ppm)	AMINAN           MCLG           ants           N/A           MRDLG = 4	TT (NTU) TT (NTU) TT (NTU) TT 2 100 4 10 60 80 80 MRDL = 4 <b>Results</b>	County Level Found 0.22 100% 0.82 0.018 1.2 0.97 0.57 34.2 64.0 1.1	Pinecrest Dist Range of Detections 0.03 - 0.22 100% 0.11 -1.23 0.017 1.2 0.81 -1.14 <0.10 - 0.57 29.3 - 42.4 41.9 - 69.2 0.4 - 1.2 90% of test levels were less than or	Violation No	Sample Year 2022 2022 2022 2022 2022 2022 2022 20	per action level of 1.3 ppm.         Typical Source of Contaminants         Soil Runoff         Soil Runoff         Naturally present in environment         Erosion from natural deposits         Discharge from steel and pulp mills; erosion of natural deposits         Water additive which promoted strong teeth         Run off from fertilizer use, Leaching from septitanks         By-product of drinking water disinfection         By-product of drinking water disinfection         Water additive used to control microbes         Typical source of Contaminants	
TABLE OF DETECTED CONT         Contaminants (Units)         Microbiological Contaminat         Turbidity (NTU)         Turbidity (% samples meeting standard)         Total Organic Carbon (TOC)*         Inorganic Contaminants         Barium (ppm)         Chromium (ppb)         Fluoride(ppm)         Nitrate (ppm)         Disinfection By-products         Haloacetic Acids (HAA5) (ppb)         Total Trihalomethanes (TTHM) (ppb)         Residual Disinfectants         Total Chlorine (ppm)         Contaminants (units)         Inorganic Contaminants	AMINAN           MCLG           ants           N/A           MRDLG = 4	TT (NTU) TT (NTU) TT (NTU) TT 2 100 4 10 60 80 80 MRDL = 4 <b>Results</b>	County Level Found 0.22 100% 0.82 0.018 1.2 0.97 0.57 34.2 64.0 1.1	Pinecrest Dist Range of Detections 0.03 - 0.22 100% 0.11 -1.23 0.017 1.2 0.81 -1.14 <0.10 - 0.57 29.3 - 42.4 41.9 - 69.2 0.4 - 1.2 90% of test levels were less than or	Violation No	Sample Year 2022 2022 2022 2022 2022 2022 2022 20	per action level of 1.3 ppm.         Typical Source of Contaminants         Soil Runoff         Soil Runoff         Naturally present in environment         Erosion from natural deposits         Discharge from steel and pulp mills; erosion of natural deposits         Water additive which promoted strong teeth         Run off from fertilizer use, Leaching from septitanks         By-product of drinking water disinfection         By-product of drinking water disinfection         Water additive used to control microbes         Typical source of Contaminants         Corrosion of household plumbing systems;	
TABLE OF DETECTED CONT         Contaminants (Units)         Microbiological Contaminants         Turbidity (NTU)         Turbidity (% samples meeting standard)         Total Organic Carbon (TOC)*         Inorganic Contaminants         Barium (ppm)         Chromium (ppb)         Fluoride(ppm)         Nitrate (ppm)         Disinfection By-products         Haloacetic Acids (HAA5) (ppb)         Total Trihalomethanes (TTHM) (ppb)         Residual Disinfectants         Total Chlorine (ppm)	AMINAN           MCLG           ants           N/A           AL           15	TT (NTU) TT (NTU) TT (NTU) TT 2 100 4 10 60 80 MRDL = 4 <b>Results</b> the	County Level Found 0.22 100% 0.82 0.018 1.2 0.97 0.57 34.2 64.0 1.1 1.1	Pinecrest Dist Range of Detections 0.03 - 0.22 100% 0.11 -1.23 0.017 1.2 0.81 -1.14 <0.10 - 0.57 29.3 - 42.4 41.9 - 69.2 0.4 - 1.2 90% of test levels were less than or equal to <2.0	rict Violation No No No No No No No Violation	Sample Year 2022 2022 2022 2022 2022 2022 2022 20	per action level of 1.3 ppm.         Typical Source of Contaminants         Soil Runoff         Soil Runoff         Naturally present in environment         Erosion from natural deposits         Discharge from steel and pulp mills; erosion of natural deposits         Water additive which promoted strong teeth         Run off from fertilizer use, Leaching from septitanks         By-product of drinking water disinfection         By-product of drinking water disinfection         Water additive used to control microbes         Typical source of Contaminants	
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\*The value reported under "Level Found" for Total Organic Carbon (TOC) compliance ratio is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.



#### Unregulated Contaminants Detected

	Lake Co	unty Tall 1	Free Pressure [	District -	Lake County Pinecrest District				
		Clevel	and Water						
	Sample Point	Level Found	Range of Detection	Year Sampled	Sample Point	Level Found	Range of Detection	Year Sampled	
Bromodichloromethane (ppb)	Entry Point	3	2.0 - 4.7	2021		round	Detection	Sampled	
Chloroform (ppb)	Entry Point	3.3	1.3 - 8.2	2021					
Dibromochloromethane (ppb)	Entry Point	1.6	1.4 - 1.9	2021					
Haloacetic Acids (HAA5) (ppb)*	Distribution	13.2	7.0 - 22.53	2018-19	Distribution	28.1	9.8 - 45.0	2019-20	
Haloacetic Acids (HAA6Br) (ppb)*	Distribution	7.97	5.38 - 11.18	2018-19	Distribution	11.8	6.9 - 19.2	2019-20	
Haloacetic Acids (HAA9) (ppb)*	Distribution	20.49	11.99 - 32.63	2018-19	Distribution	39.5	16.3 - 63.4	2019-20	
Manganese (ppb)*	Raw	1.13	0 - 3.8	2018-19	Entry Point	0.85	BDL - 0.85	2019-20	
Germanium (ppb)*	Raw	0.073	0 - 1.15	2018-19					
Total Organic Carbon (ppb)*	Raw	2133	1860 - 2290	2018-19					
Bromide (ppb)*	Raw	31.1	26.1 - 35.1	2018-19					
	determine wh needs to regula are from sam	ere certain co ite those con ipling done fo Rule. For a co	nants monitoring he ontaminants occur a taminants. The resu or the Unregulated opy of Cleveland W 16-664-2639.	and whether it Ilts in this table Contaminant	determine wh it needs to reg table are f	ere certain co ulate those c from samplin nt Monitoring	ants monitoring hel ontaminants occur a ontaminants. The re g done for the Unre g Rule. For a copy of , call 440-257-6190.	nd whether esults in this gulated	

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## Tap Water Bottled Water CHEERS TO YOUR HEALTH

Drinking water – tap, filtered, or bottled – is important for healthy hydration and is an alternative to less-healthy, sugary beverages; especially when consumers want to eliminate or moderate calories, caffeine, and other ingredients from their diets.

Consumers choose bottled water for several reasons, including taste, quality and convenience, but tap water costs considerably less, has a much lower environmental impact, and is regulated by the Environmental Protection Agency. Roughly one penny (\$0.01) delivers two gallons of clean, treated, delicious tap water to your home in order to serve your various needs–such as washing clothes, bathing, and industrial and commercial uses.



Many bottled water companies use public water sources for their products. Once the source water enters the bottled water facility, several processes happen to ensure that it meets the U.S. Food and Drug Administration's purified water standard. The finished water is then placed in a sealed bottle under sanitary conditions, distributed and sold to consumers.

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 call the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

## CONTACT US

Customer Service tel. (440-350-2070) Monday - Friday, 8:00 a.m. – 4:30 p.m. Customer Service Office -105 Main St., Suite A113 or the payment address, P.O. Box 8005 Painesville, Ohio 44077



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