

WATER QUALITY DATA

What does this chart mean?

- MCLG - Maximum Contaminant Level Goal 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.
- MCL - Maximum Contaminant Level is the highest level of a contaminant that is allowed in drinking water. Maximum Contaminant Levels are set at very stringent levels. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- MRDL - Maximum Residual Disinfectant Level is the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- MRDLG - Maximum Residual Disinfectant Level Goal is 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 contaminants.
- AL - Action Level or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) - explained as a relation to time and money as one part per million corresponds to one minute in two years for a single penny in \$10,000.
- Parts per billion (ppb) or Micrograms per liter - explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Picocuries per liter (pci/l) - picocuries per liter is a measure of the radioactivity in water.
- Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- TT - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.
- N/A - Not Applicable
- Avg. - Average
- BDL - Below Detection Level

Most of the data presented in this table is from testing done between January and December of 2007

Contaminant	Violation Y/N	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	0				0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity	No	.36	.06-36	2007	NTU	N/A	TT 100% of samples meet std.	Soil runoff
Beta/Photon emitters	GF				mrem/yr	0	4	Decay of natural and manmade deposits.
Alpha emitters	No	<1.7		10-7-2003	pci/L	0	15	Erosion of natural deposits
Copper *	No	90 th %= 0.14	.0026-1.0	11-14-2007	ppm	1.3	AL=1.3 No sites exceed action level.	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Cyanide	No	.0052		05-17-2006	ppm	.2	.2	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	No	.809 A vg.	.348-1.03	2007	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
³ Lead *	No	90 th %=<.0016	.5-7.6	11-14-2007	ppb	0	AL=15 No sites exceed action level.	Corrosion of household plumbing systems, erosion of natural deposits
² Nitrate (as Nitrogen)	No	.52		07-11-2007	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	No	11		05-01-2007	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
HAA Haloacetic Acid	No	47 Avg.	1.8-103	2007	ppb	0	60	By-product of drinking water chlorination
TTHM [Total trihalomethanes]	No	51.1 Avg.	4.9-131	2007	ppb	0	80	By-product of drinking water chlorination
Total Organic Carbon **	No	1.925 Avg.	1.2-2.6	2007	ppm	TT	TT	Naturally present in the environment.
Chlorine	No	2.9-3.8	1.544-2.5	2007	ppm	4	4	Water additive used to control microbes.

*0 sites out of 60 sites sampled exceeded the copper or lead action levels.

**We met the Treatment Technique for Total Organic Carbon in 2007.

Federal Regulations now require all surface water systems serving more than 10,000 people to sample their source water for cryptosporidium. Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Monitoring of source water indicated the presence of cryptosporidium in five out of twenty-four samples tested in 2004 and 2005. **No cryptosporidium was detected in our finished water samples.** Although cryptosporidium can be removed by filtration, most commonly used filtration methods cannot guarantee 100 percent removal. Our system currently provides treatment which is designed to remove 99.9 percent of cryptosporidium. **EPA has determined that the presence of cryptosporidium at the concentration level reported in our source water is insignificant based on the level of treatment we currently provide.** Symptoms of cryptosporidium infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immune-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immune-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to prevent infection. For more information on cryptosporidium, contact the Safe Drinking Water Hotline (1-800-426-4791).

Columbia Water System Water Quality Report 2007



**201 Pickens Lane
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www.cpws.com**

IS MY DRINKING WATER SAFE?

Yes, our water meets all of EPA's health standards. We have conducted numerous tests for over 81 contaminants that may be in drinking water. As you'll see in the chart on the back, we only detected 14 of these contaminants. We found all of these contaminants at safe levels.

WHAT IS THE SOURCE OF MY WATER?

Your water comes from a surface water source called the Duck River. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to **potential** contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water sources serving this water system. The SWAP Report assesses the susceptibility of public water supplies to **potential** contamination. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate), or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The Columbia Water System source rated as slightly susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment Summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at www.state.tn.us/environment/dws/dwassess.shtml or you may contact Columbia Water System or TDEC at 1-888-891-TDEC to obtain copies of specific assessments.

WHY ARE THERE CONTAMINANTS IN MY WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this regulation. 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 (800-426-4791).

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have under-gone 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 not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OUR OPERATIONS?

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. We want you to know that we pay attention to all the rules.

OTHER INFORMATION

Due to all water containing dissolved contaminants, occasionally your water may exhibit slight discoloration. We strive to maintain the standards to prevent this. We at Columbia Water System work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.



HOW CAN I GET INVOLVED?

Our Board of Public Utilities meets on the fourth Monday of every month at 201 Pickens Lane. Please feel free to participate in these meetings.

For more information about your drinking water, please call Kelly Powell at 388-4833 ext. 7646.