



ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

Presented By
Beaver Borough Municipal Authority

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: 5040009

Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Source Water Assessment

A Source Water Assessment of the groundwater supplying the Beaver Borough Municipal Authority water treatment plant was completed in 2003 by PADEP. The assessment has found that our source is potentially most susceptible to accidental spills from roadways, railroads, and a nearby fuel storage facility. Overall our source has moderate risk of significant contamination. Summary reports are available by writing to Beaver Borough at 469 3rd Street, Beaver, PA 15009 and by accessing the PADEP Web site at www.dep.state.pa.us (Keyword: DEP source water). Complete reports were distributed to municipalities, water supplier, local planning agencies, and PADEP offices. Copies of the complete report are available for review at the PADEP Southwest Regional Office, Records Management Unit, at (412) 442-4000.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Community Participation

You are invited to participate in our public forum and ask questions about your drinking water. The Municipal Authority meets the 3rd Wednesday of each month at the Beaver Borough Municipal Building, located at 469 3rd St, Beaver, PA 15009.

Where Does My Water Come From?

The Beaver Borough Municipal Authority water treatment plant is supplied from 5 groundwater wells located along the northerly side of the Ohio River. Beaver Borough Municipal Authority draws water from the five active wells located on the Authority property. The wells combine into a common header, and water flowing from the common header is injected with gaseous chlorine before it enters an underground wet well. Gaseous chlorine is automatically dosed and continuously monitored. Three vertical turbine pumps are used to distribute water to the Lion Lane storage tank and to the distribution system. The Authority is working hard to identify water leakage in the system and to make repairs to stop these leaks. Daily water production has been greatly reduced by these efforts. We are currently investigating replacement options for developing potential new water sources.

Important Health Information

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call the Beaver Borough Municipal Authority office at (724) 773-6700 or access our Web site at <https://beaverboroughwater.us/>.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA and the Pennsylvania Department of Environmental Protection (PADEP) prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration and PADEP 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Treatment Process

The treatment process in Beaver consists of pulling groundwater from our underground aquifer with our well pumps and applying chlorine disinfection to this "raw" water in our Water Works. Continuous monitoring of the disinfection residual is an integral part of our process. Beaver Borough Municipal Authority does not filter this groundwater.

Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Pennsylvania DEP has a Web site (<https://goo.gl/S8tGjj>) that provides complete and current information on water issues in Pennsylvania, including valuable information about our watershed.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

PUBLIC NOTICE

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
 FAILURE TO MONITOR**

**ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE
 ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.**

Monitoring Requirements Not Met for Beaver Borough Municipal Authority 5040009

Our water system violated several drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

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 our drinking water meets health standards. During 2020 we failed to monitor for the following contaminants and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, the required sampling frequency, how many samples we took, when samples should have been taken, and the date on which corrective action samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
Volatile Organic Contaminants	Annual 3 rd Qtr	0	1	Feb. 2021

What happened? What was done? When will it be resolved?

Due to a clerical error the sample was mistakenly marked as completed, a make up sample was done immediately after the notice of violation brought the missed sample to our attention in February of 2021.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information regarding this notice, please contact Beaver Borough Municipal authority at 724-773-6700.

Certified by:

Signature: _____ Date: 4/22/21

Print Name and Title: Scott Snyder, Coordinator of Operations

As a representative of the Public Water system indicated above, I certify that public notification addressing the above violation was distributed to all customers in accordance with the delivery requirements outlined in Chapter 25 PA Code 109 Subchapter D of the Department of Environmental Protection (DEP's) regulations. The following methods of distribution were used: posted to BBMA website and address placed on bills to customers, CCR.

PWS ID#: 5040009
 website. 6/15/21 CCR

Date distributed: 4/22/21 to

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only those substances that were detected in our water. (A complete list of all our analytical results is available upon request.) Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2018	2	2	0.135	0.135–0.135	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines [Distribution] (ppm)	2020	[4]	[4]	ND	0.79–0.95	No	Water additive used to control microbes
Chloramines [Entry Point] (ppm)	2020	MinRDL = 0.4	NA	ND	0.39–1.45	No	Water additive used to control microbes
Chromium (ppb)	2015	100	100	11.4	11.4–11.4	No	Discharge from steel and pulp mills; Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2020	60	NA	2.53	2.53–2.53	No	By-product of drinking water disinfection
Nitrate (ppm)	2020	10	10	5.885	0.64–8.41	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2020	80	NA	12	12–12	No	By-product of drinking water disinfection
Tetrachloroethylene (ppb)	2020	5	0	0.59	0.59–0.59	No	Discharge from factories and dry cleaners

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	1.3	0.258	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead ¹ (ppb)	2019	15	0	12	1/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppm)	2020	0.00138	0.00138–0.00138	By-product of drinking water disinfection
Bromoform (ppm)	2020	0.0059	0.0059–0.0059	By-product of drinking water disinfection
Chlorodibromomethane (ppm)	2020	0.00473	0.00473–0.00473	By-product of drinking water disinfection

¹ Action level not exceeded.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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 a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MinRDL (Minimum Residual Disinfectant Level): The minimum level of residual disinfectant required at the entry point to the distribution system.

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 contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).