

**WATER QUALITY REPORT**  
**BADEN BOROUGH WATER DEPARTMENT**  
**PWSID 5040080**

*Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien.* (This report contains very important information about your drinking water. Translate it, or speak to someone who understands it.)

We're pleased to present to you this year's Water Quality Report for the period **January 1<sup>st</sup> to December 31<sup>st</sup>, 2017**. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We purchase our water from the Ambridge Water Authority. Their water source is the Ambridge Reservoir located in Raccoon and Independence Townships, Beaver County.

The source water assessment report is available at the Ambridge Water Authority office and provides more detailed information such as potential sources of contamination. The assessment is completed by the PA Department of Environmental Protection. An assessment summary report is also available on the *Source Water Assessment & Protection* Web page at:

<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-59388/RS5040008001%20Ambridge.pdf>

Baden Borough Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. All sources of drinking water are subject to potential contaminants that are naturally occurring or man made. Those contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. 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 the water poses a health risk.

**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 infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the *Safe Drinking Water Hotline* (800-426-4791).**

**We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2017. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table**

In these tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**AL**      *Action Level* – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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.
- 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.
- pCi/l** *Picocuries per liter* - a measure of radioactivity
- ppm** *parts per million or milligrams per liter* –one part per million corresponds to one minute in two years or a single Penny in \$10,000.
- ppb** *parts per billion or micrograms per liter* – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- NTU** *Nephelometric Turbidity Unit* –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* – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- RAA** *Running Annual Average*-Mathematical average of analytical data in which four quarterly results are continuously averaged
- N/A** Not Applicable

**DETECTED SAMPLE RESULTS:**

<b>Chemical Contaminants</b>								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine (distribution)	MRDL=4	MRDLG=4	0.94	0.31-0.94	ppm	2017	N	Water additive used to control microbes
TTHM (total trihalomethanes)	80	N/A	45.1	26.9 - 59.2	ppb	2017	N	By-product of drinking water chlorination
Haloacetic acids	60	N/A	31.9	18.7 - 45.9	ppb	2017	N	By-product of drinking water chlorination

<b>Lead and Copper</b>							
Contaminant	Action Level (AL)	MCLG	90 <sup>th</sup> Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead (2016)	15	0	0	ppb	0 of 20	N	Corrosion of household plumbing.
Copper (2016)	1.3	1.3	0.092	ppm	0 of 20	N	Corrosion of household plumbing.

**DETECTIONS BELOW ARE FROM SAMPLES TAKEN BY AMBRIDGE WATER AUTHORITY**

<b>Chemical Contaminants</b>								
<b>Contaminant</b>	<b>MCL in CCR Units</b>	<b>MCLG</b>	<b>Highest Detected</b>	<b>Range of Detections</b>	<b>Units</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Barium	2	2	0.029	(a)	ppm	2017	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2	2	0.098	(a)	ppm	2017	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	10	10	0.402	(a)	ppm	2017	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

(a) Only one sample required. The results shown are from the latest samples required by regulation

<b>Turbidity -Ambridge Water Authority</b>						
<b>Contaminant</b>	<b>MCL</b>	<b>MCLG</b>	<b>Level Detected</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Source of Contamination</b>
Turbidity	TT=1 NTU for a single measurement	0	0.50	2017	N	Soil runoff.
	TT= at least 95% of monthly samples ≤0.3 NTU		100%	2017	N	

<b>Total Organic Carbon (TOC)-Ambridge Water Authority</b>					
<b>Contaminant</b>	<b>Range of % Removal Required</b>	<b>Range of percent removal achieved</b>	<b>Number of quarters out of compliance</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
TOC	35-45%	-16 – 42.8%	0 (b)	N	Naturally present in the environment.

(b) Specific Ultraviolet Absorbance (SUVA) was used as alternative compliance criteria for TOC

Unregulated contaminant Monitoring Rule Part 3 (UCMR3) Monitoring was completed by the Ambridge Water Authority (AWA) in 2013. Contact AWA for more information about this sampling.

**Note about Ambridge Water Authority (AWA) Violations**

In the third quarter of 2016 and the first quarter of 2017, the Pennsylvania Department of Environmental Protection (PA DEP) issued a Notice of Violation (NOV) to the AWA for a failure to meet the requirements for the removal of total organic carbon (TOC). The normal standard for TOC is a removal ratio running annual average (compounded quarterly) of 1.0. Upon further review, PA DEP determined that Alternative Compliance Criteria was met for TOC removal during all quarters of 2016 and 2017. Therefore PA DEP has rescinded the NOV for TOC. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

During 2017, it was brought to the attention of PA DEP and the AWA that the AWA test results for the water samples taken from the AWA system that were tested for lead are invalid due to the use of an unapproved

laboratory method to test the samples. The AWA will have to complete further testing in 2018 to maintain compliance because the sample results from 2016 for lead are not valid.

## **Note about Baden Violations**

During the operating year of 2017, the Borough of Baden Water Department failed to submit their Disinfectant and Disinfectant Byproducts Monitoring Report and their Filtration Performance Monitoring Report for Chlorine, for the months of February and June, on time. The Borough of Baden Water Department also failed to submit their Disinfectant and Disinfectant Byproduct Monitoring Report for Haloacetic Acids (Five) and Trihalomethanes, for the month of July, on time. All of these reports were submitted late and are therefore monitoring violations.

## **Information about Lead**

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. Baden Borough Water Department is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## **Do I need to take special precautions?**

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

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater run-off, 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 can, also, come from gas stations, urban stormwater 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 and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.**

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

In our continuing efforts to maintain a dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

If you have any questions about this report or concerning your water utility, please contact **Elaine K. Rakovan**,

**Baden Borough Secretary at 724-869-3700.** We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Wednesday of every month and the preceding Monday in the Council Chambers of the Baden Borough Municipal Building located at 149 State Street, Baden, Pennsylvania.

We at Baden Borough Water Department 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.