



2019 Annual Drinking Water Quality Report PWSID # 5031050

- *Meets All Drinking Water Standards*
 - *Is continuously tested*
 - *Is safe to drink*

The Town of Altavista is pleased to provide you with our Annual Drinking Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you throughout calendar year **2019**. Our goal is, and always has been, to provide citizens a safe and dependable supply of drinking water.

Laboratory testing indicates that our drinking water is safe and meets Federal and State requirements. This report shows our water quality and what it means. If you have any questions about this report or concerning your water quality, please contact Bryan Mawyer at the Altavista Water Treatment Plant at (434) 324-7251 during the hours of 8:00 a.m. to 4:00 p.m., Monday through Friday. We want our customers to be informed about their water system. For more information, please attend any of our regularly scheduled council meetings. They are held the second Tuesday of every month at 7:00 p.m. in the council chambers in the J.R. Rudy Burgess Town Hall located at 510 Seventh Street.

A source water assessment of our system has been conducted by the Virginia Department of Health. The water sources were determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. More information about the Source Water Assessment Program may be obtained by contacting Virginia Department of Health Danville Virginia 434-836-8416 or contacting the Altavista Water Plant at 434-324-7251.

Our water sources are:

Staunton River: Surface water source; treated and filtered at our Municipal Water Treatment Plant.

Reed Creek: Surface water source; treated and filtered at our Municipal Water Treatment Plant.

McMinnis Spring: Ground water source; disinfected, fluoridated, and pumped directly into the distribution system.

Reynolds Spring: Ground water source; disinfected, fluoridated, and pumped directly into the distribution system.

Campbell County Utilities and Service Authority: Emergency connection. **(18,088,136 Gallons Purchased in 2019)**

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: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (2) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (4) 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; (5) 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The Town of Altavista routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show the results of monitoring for the Town of Altavista water systems during the period of January 1 to December 31, 2019. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative, are more than one-year-old; therefore, their test dates are provided in each table.

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 Town of Altavista 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 15 to 30 seconds or until it becomes cold and reaches a steady temperature before using water for drinking or cooking. Please note that the results from testing for lead are well below the established allowable levels. 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 1-800-426-4791 or at

<http://www.epa.gov/safewater/lead>

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.

However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, and diarrhea and associated headaches.

Nitrate-Nitrate. 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 because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Barium. Some people who drink water-containing barium in excess of the Maximum Contaminant Level over many years could experience an increase in their blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress.

Fluoride. Some people who drink water-containing fluoride in excess of the Maximum Contaminant Level over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the Maximum Contaminant Level or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Chlorine. Water Additive used for disinfection. Some people who use drinking water containing chlorine well in excess of the Maximum Residual Disinfectant Level could experience irritating effects to their eyes and nose. Some people who drink water-containing chlorine well in excess of the Maximum Residual Disinfectant Level could experience stomach discomfort.

Total Trihalomethanes (TTHM) Halo acetic Acids HAA5 The levels of Trihalomethanes (TTHM) and Halo acetic acids (HAA5) are both by-products of using chlorine for disinfection and both contaminants are measured at two location. The PMCL for TTHM is 80 micrograms per liter (ug/l or ppb) and the PMCL for HAA5 is 60 micrograms per liter or ppb. Compliance with the PMCL is based on a running annual average LRAA (using 4 quarters) of the quarterly samples collected and the water supply did not exceed the drinking water limits on that basis. TTHMs are formed when trace amounts of naturally occurring organic compounds in the raw water source combine with chlorine that is used to disinfect the treated water, all locations do not have the same levels of TTHMs. Higher levels are expected in the areas with the highest residence time (generally the furthest points in the system) and during warmer months of the year. Some people who drink water containing Trihalomethanes and Halo acetic Acids in excess of the Primary Maximum Contaminant Level over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. The water system will continue to monitor for disinfection by-products. We intend to maintain compliance with the drinking water contaminants,

Alpha-pCi/l. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the Maximum Contaminant Level over many years may have an increased risk of getting cancer.

Combined Radium. Containing radium 226 or 228 in excess of the Maximum Contaminant Level over many years may have an increased risk of getting cancer.

In the following tables of contaminants for the Town of Altavista, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) – One part per million corresponds to one minute in two years or a single penny in \$10.

High turbidity can hinder the effectiveness of disinfectants Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.

Parts per billion (ppb) or Micrograms per liter – One part per billion corresponds to one minute in 2000 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.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the cloudiness of water. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system.

Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Maximum Contaminant Level Goal (MCLG)-the “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.

Maximum Contaminant Level (MCL) - The “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. PMCL and SMCL are primary and secondary contaminant levels respectfully.

Non-detects (ND) – Laboratory analysis indicates that the constituent is not present.

Not Applicable (N/A) - Does not apply.

< - Less than designated number

Maximum Residual Disinfectant Level Goal or MRDLG – The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG does not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water.

LRAA – Locational Running Annual Average – Average of the most recent quarterly results and the three prior quarters of the disinfection by-product result at the designated individual compliance sample sites

| Regulate Contaminants | | | | | | | |
|--|--|----------------------------------|--|---|---------|---|-----------|
| Contaminant-Unit of Measurement | Testing Frequency or Sample Date | Level Detected | Range of Detection | MCL | MCLG | Typical Source of Contamination | Violation |
| Fluoride - ppm | Tested Daily | 0.65 | .490-.773 | 4 | 4 | Water additive Which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories | No |
| Nitrate-Nitrite ppm (as Nitrogen) | November, 2019 | 0.27 | ND - 0.27 | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage: Erosion of natural deposits | No |
| Copper -ppm | July, 2017 | .33 90th percentile | . ND - 0.333 0 of 20 samples Exceeded AL | AL = 1.3 | 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives | No |
| Lead - ppb | July, 2017 | < .0047 90th Percentile | ND - .0047 of 20 samples Exceeded AL | AL = 15 | 0 | Corrosion of household plumbing systems | No |
| Barium | October 2019 | 0.0316 | - | 2 | 2 | Discharge of drilling waste: discharge from metal refineries: erosion of natural deposits | No |
| Turbidity - NTU | Tested Continuously at Water Plant | 0.07 100% Less than .30 | ND - .124 | TT= 1 MAX TT<= 0.3 in 95% of monthly samples | N/A | Soil Runoff | No |
| Gross Alpha - pCi/l | April, 2017 | 0.85 | - | 15 | 0 | Erosion of Natural Deposits | No |
| Combined Radium - pCi/l | April, 2017 | <1.5 | - | 5 | 0 | Erosion of Natural Deposits | No |
| Chlorine - ppm | Continuously at Water Plant and Distribution System | Highest Level 1.81 | .20-1.81 | MDRL=4 | MDRLG=4 | Water Additives used for disinfection | No |
| Total Organic Carbon (TOC) -ppm Removal Ratio | Tested Monthly | 12-month Lowest Ratio 1.0 | 1.00-2.08 | TT Ratio ≥ 1.0 Or Alternate Compliance | N/A | Naturally present in the environment | No |
| Site #1 Exxon | | LRRR | | | | | |
| Total Trihalomethanes - ppb (TTHM) | Tested Quarterly | 52 | 38.5-51.4 | 80 | N/A | By-products of drinking water disinfection | No |
| Halo acetic Acids -ppb (HAAS) | Tested Quarterly | 38 | 26.0-44.0 | 60 | N/A | By-products of drinking water disinfection | No |
| Site #2 Chimney Ridge | | LRRR | | | | | |
| Total Trihalomethanes - ppb (TTHM) | Tested Quarterly | 50 | 10.7-60.3 | 80 | N/A | By-products of drinking water disinfection | No |
| Halo acetic Acids -ppb (HAAS) | Tested Quarterly | 50 | 8.5-51 | 60 | N/A | By-products of drinking water disinfection | No |
| Unregulated Parameters | | | | | | | |
| Sodium mg/L | Tested Annually | 11.9 | - | 20 mg/L | N/A | Level recommended | No |

TIER ONE VIOLATION INFORMATION- On July 23 of 2019 the Town had two (2) Bacteriological samples that were positive for Total Coliform. The sample results were Negative for E coli. The Town repeated the samples on July 25, 2019 at the same sites and the Town also took a sample from Upstream and Downstream of the location to ensure the water was safe. All the repeat samples came back Negative.

Except for the two positive total coliform tests that were collected in July, our system had no violations. We are proud that your drinking water meets or exceeds all Federal and State requirements. "We are pleased to report to you that there were no detections of fecal coliforms in the monthly samples collected during calendar year 2019."

In 2019 the Town of Altavista collected and analyzed eight (8) samples of untreated source water for Cryptosporidium. These water samples were collected before any treatment had been applied at our water filtration plant, all eight results were either <0.100(oocysts per liter). Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants, and small children, and the elderly are at greater risk of developing life-threatening illness. Cryptosporidium must be ingested to cause the disease, and it may be spread through means other than drinking water. The water treatment plant utilizes filtration to treat drinking water which removes cryptosporidium, but filtration methods cannot guarantee 100 percent removal. Water works personnel work diligently to optimize the filtration process in order to ensure the greatest cryptosporidium removal. (See last page for results)

The EPA has determined that your water IS SAFE at these levels. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. To ensure that tap water is safe to drink, the Department of Health and EPA prescribe regulations that limit the number of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture 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 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 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 microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

The Altavista Water Department works 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.

Excellence in Water Treatment Award The Virginia Department of Health, Office of Drinking Water recognized the Town of Altavista and waterworks management staff and all operations personnel for the excellence in water treatment plant performance with a 2019 Gold Award, the highest award level, for meeting specific program standards.

In our continuing efforts to maintain a safe and 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.

The Town of Altavista also provides water to the Town of Hurt. The Town of Hurt purchased **30,829,100** gallons in the year **2019**. We appreciate your support and understanding concerning water system issues.

The report this year, will be posted in the local newspaper and will not be mailed or hand delivered, however a copy can be obtained by contacting the Altavista Water Treatment at (434) 324-7251 or by contacting the J.R Rudy Burgess Town Hall at 510 Seventh Street between the hours of 8:15 am and 5:00 pm. Monday thru Friday.

Water is a basic and essential need of every living creature and Altavista's water resources play a vital role in the water we drink and use to support life and contribute to Altavista's wellbeing and Prosperity. It is imperative that we increase awareness of the importance of conserving our natural resources in the interest of our health and economic growth. The Town of Altavista is committed to educating our citizens on the importance of water conservation. For more information on conservation please call the number below.

Please call your Water Department office at (434) 324-7251 if you have questions.

Crypto/eColi Results collected 01/01/2019 through 12/31/2019

Run date:04/02/2020

Report total: 8

DISTRICT 13

| SampleID | Type | PWS Name/ Lab ID - Location - Sampler | Collect Date/Time | Turbidity Measure | Reject Reason |
|----------------------|------|--|--|-------------------|---------------|
| 5031050 | | ALTAVISTA, TOWN OF | | | |
| 19082687-01A | Y RT | 00281 IN003/RW001 | POLLY BROWN 8/6/2019 13:45 | | |
| | | | 3015 CRYPTOSPORIDIUM A | EPA 1623.1 | |
| 371903856-0001 | Y RT | 460184 IN003/RW001 | 3/5/2019 10:20 | 14.6 NTU | |
| PACKED PELLET VOLUME | | 0.4 ML | 3015 CRYPTOSPORIDIUM 0.0909 OCYSTSC LITER | EPA 1623.1 | |
| VOLUME FILTERED | | 11 L | NUMBER OF OOCYSTS 1 SAMP VOL | | |
| | | | VOLUME OF RESUSPENDED CONC. PROCESSED 5 ML | | |
| | | | VOLUME OF RESUSPENDED CONCENTRATE 5 ML | | |
| 371912395-0001 | Y RT | 460184 IN003/RW001 | 6/4/2019 10:30 | | |
| VOLUME FILTERED | | 11 L | 3015 CRYPTOSPORIDIUM A | EPA 1623.1 | |
| | | | PERCENT FILTERED VOLUME ANALYZED 100 % | | |
| 371914971-0001 | Y RT | 460184 IN003/RW001 | 7/9/2019 12:00 | | |
| VOLUME FILTERED | | 11 L | 3015 CRYPTOSPORIDIUM 0.0909 CYSTSC LITER | EPA 1623.1 | |
| | | | PERCENT FILTERED VOLUME ANALYZED 100 % | | |
| 371919682-0001 | Y RT | 460184 IN003/RW001 | 9/3/2019 12:45 | | |
| | | | 3015 CRYPTOSPORIDIUM A | EPA 1623.1 | |
| 371922233-0001 | Y RT | 460184 IN003/RW001 225 AIRPORT INDUSTRIAL PARK DRIVEBEAVER, WV 25813 | 10/1/2019 12:45 | 5.95 NTU | |
| VOLUME FILTERED | | 11 L | 3015 CRYPTOSPORIDIUM A | | |
| 371925028-0001 | Y RT | 460184 IN003/RW001 | 11/5/2019 10:45 | 10.5 NTU | |
| VOLUME FILTERED | | 11 L | 3015 CRYPTOSPORIDIUM A | EPA 1623.1 | |
| | | | PERCENT FILTERED VOLUME ANALYZED 100 % | | |
| 371926902-0001 | Y RT | 460184 IN003/RW001 225 AIRPORT INDUSTRIAL PARK DRIVEBEAVER, WV 25813 | BILLY SHIRLEY 12/3/2019 12:45 | 14.8 NTU | |
| VOLUME FILTERED | | 11 L | 3015 CRYPTOSPORIDIUM A | EPA 1623.1 | |