ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 7280021 NAME: MERCERSBURG WATER AUTHORITY - Buck Run WTP

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hablé con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact the Borough/Authority Manager at 717-328-3116 ext-101. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Thursday of each month at Borough Hall at 7:00 PM.

SOURCE(S) OF WATER:

Our water source(s) is/are: (Name-Type-Location)

- Buck Run Reservoir - surface water source
- Mountain Well - well source (GUDI - groundwater under the influence of surface water)
- Buck Run Well - groundwater (well) source

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) is/are potentially most susceptible to [insert potential Sources of Contamination listed in your Source Water Assessment Summary]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045. 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 Pa. DEP Southcentral Regional Office (909 Elmerton Avenue, Harrisburg PA).

Regional Office, Records Management Unit at (717) 771-4481.

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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).
MONITORING YOUR WATER:

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, 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. 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.

DEFINITIONS:

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

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close as feasible to the MCLGs using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - 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) - 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.

Maximum Residual Disinfectant Level Goal (MRDLG) - 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.

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

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

pCi/L = picocuries per liter (a measure of radioactivity)

ppb = parts per billion, or micrograms per liter (μg/L)

ppm = parts per million, or milligrams per liter (mg/L)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter
### DETECTED SAMPLE RESULTS:

<table>
<thead>
<tr>
<th>Chemical Contaminants</th>
<th>MCL in CCR Units</th>
<th>MCLG</th>
<th>Level Detected</th>
<th>Range of Detections</th>
<th>Units</th>
<th>Sample Date</th>
<th>Violation Y/N</th>
<th>Sources of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTHM</td>
<td>80</td>
<td>80</td>
<td>5.60</td>
<td>1.52 - 5.60</td>
<td>ppb</td>
<td>8/15/2019</td>
<td>N</td>
<td>Disinfection by-products</td>
</tr>
<tr>
<td>HAA5</td>
<td>60</td>
<td>60</td>
<td>5.30</td>
<td>1.41 - 5.30</td>
<td>ppb</td>
<td>8/15/2019</td>
<td>N</td>
<td>Disinfection by-products</td>
</tr>
<tr>
<td>Nitrate</td>
<td>10</td>
<td>10</td>
<td>0.00</td>
<td>-</td>
<td>mg/L</td>
<td>11/1/19</td>
<td>N</td>
<td>Runoff from fertilizer use</td>
</tr>
<tr>
<td>Nibrite</td>
<td>1</td>
<td>1</td>
<td>0.00</td>
<td>-</td>
<td>mg/L</td>
<td>11/1/19</td>
<td>N</td>
<td>Runoff from fertilizer use</td>
</tr>
<tr>
<td>VOC's</td>
<td>-</td>
<td>-</td>
<td>0.00</td>
<td>-</td>
<td>mg/L</td>
<td>11/22/19</td>
<td>N</td>
<td>Chemicals that dissolve into water</td>
</tr>
<tr>
<td>Radium 228</td>
<td>5</td>
<td>-</td>
<td>1.33</td>
<td>0.00 - 1.33</td>
<td>pCi/L</td>
<td>9/15/2018</td>
<td>N</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Nickel</td>
<td>-</td>
<td>-</td>
<td>0.007</td>
<td>0.00 - 0.007</td>
<td>mg/L</td>
<td>4/20/2018</td>
<td>N</td>
<td>Erosion of natural deposits</td>
</tr>
</tbody>
</table>

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.*

### Entry Point Disinfectant Residual

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Minimum Disinfectant Residual</th>
<th>Lowest Level Detected</th>
<th>Range of Detections</th>
<th>Units</th>
<th>Sample Date</th>
<th>Violation Y/N</th>
<th>Sources of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>0.4</td>
<td>1.32</td>
<td>1.32 - 2.15</td>
<td>ppm</td>
<td>8/10/2019</td>
<td>N</td>
<td>Water additive used to control microbes</td>
</tr>
</tbody>
</table>

### Lead and Copper

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Action Level (AL)</th>
<th>MCLG</th>
<th>90th Percentile Value</th>
<th>Units</th>
<th># of Sites Above AL of Total Sites</th>
<th>Violation Y/N</th>
<th>Sources of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>15</td>
<td>0</td>
<td>2</td>
<td>ppb</td>
<td>0/10</td>
<td>N</td>
<td>Corrosion of household plumbing</td>
</tr>
<tr>
<td>Copper</td>
<td>1.3</td>
<td>1.3</td>
<td>0.794</td>
<td>ppm</td>
<td>0/10</td>
<td>N</td>
<td>Corrosion of household plumbing</td>
</tr>
</tbody>
</table>
### Microbial (related to Assessments/Corrective Actions regarding TC positive results)

<table>
<thead>
<tr>
<th>Contaminants</th>
<th>TT</th>
<th>MCLG</th>
<th>Assessments/ Corrective Actions</th>
<th>Violation Y/N</th>
<th>Sources of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform Bacteria</td>
<td>Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement</td>
<td>N/A</td>
<td>See detailed description under “Detected Contaminants Health Effects Language and Corrective Actions” section</td>
<td>N</td>
<td>Naturally present in the environment.</td>
</tr>
</tbody>
</table>

### Microbial (related to E. coli)

<table>
<thead>
<tr>
<th>Contaminants</th>
<th>MCL</th>
<th>MCLG</th>
<th>Positive Sample(s)</th>
<th>Violation Y/N</th>
<th>Sources of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. coli</td>
<td></td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>Human and animal fecal waste.</td>
</tr>
</tbody>
</table>

**Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.**

### Turbidity

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL</th>
<th>MCLG</th>
<th>Level Detected</th>
<th>Sample Date</th>
<th>Violation Y/N</th>
<th>Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td></td>
<td></td>
<td>0.42</td>
<td>7/30/19</td>
<td>N</td>
<td>Soil runoff</td>
</tr>
<tr>
<td></td>
<td>TT=1 NTU for a single measurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TT= at least 95% of monthly samples≤0.3 NTU</td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>
### Total Organic Carbon (TOC)

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Range of % Removal Required</th>
<th>Range of percent removal achieved</th>
<th>Number of quarters out of compliance</th>
<th>Violation Y/N</th>
<th>Sources of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOC</td>
<td>NR</td>
<td>41%-49%</td>
<td>N</td>
<td>N</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

#### DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

NO ADDITIONAL HEALTH EFFECTS LANGUAGE IS REQUIRED BASED ON ANALYTICAL RESULTS.

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#### OTHER VIOLATIONS:

SEE ATTACHED SHEET FOR VIOLATION DETAILS

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#### EDUCATIONAL INFORMATION:

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-occuring 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).

**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. Mercersburg Water Authority 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 the Safe Drinking Water Hotline or at [http://www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

**OTHER INFORMATION:**

Our staff works hard every day to provide the best quality of water possible to your tap. We take pride in our water quality and are working closely with PADEP to improve operations and update our system.
MERCERSBURG WATER AUTHORITY
“2019 VIOLATION REPORT”

REPORTING VIOLATIONS
1) Late reporting for Disinfection By-Products analysis
2) Late reporting for Groundwater Rule residuals
3) Late reporting for Combined Filter Effluent Turbidity
4) Late reporting for Turbidity levels

PADEP ID #
33276 & 35140
33279 & 35143
33277, 33280, 35141 & 35144
33281, 35145, 33282 & 35146

LATE MONITORING
1) Distribution chlorine residual

PADEP ID #
24175, 33278 & 35142

TREATMENT VIOLATIONS
1) Failure to meet surface water treatment rule criteria
   *This was due to an equipment malfunction which provided incorrect analytical data*

PADEP ID #
39440, 39441 & 39442

FAILURE TO ISSUE PUBLIC NOTIFICATION
1) Failure to issue public notification for minimum entry point chlorine residual violation

PADEP ID #
39434, 39435 & 39436

The violations identified above were a result of late monitoring and/or reporting, or a mechanical failure which provided incorrect analytical data. The Mercersburg Water Authority certified operator in charge resigned in July of 2019, and the remaining staff worked diligently every day to pick up the additional daily duties; however at times sample collection and reporting was submitted late to PADEP. At no point was your water unsafe for consumption.