



## 2021 ANNUAL DRINKING WATER QUALITY REPORT

### PWSID #: 7360135 East Petersburg Borough Water Department

*Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable 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 out water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Jeff Moseman, at 717-569-2321. 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 first Tuesday of each month at the Community Center, 6051 Pine Street, East Petersburg, PA at 7:00 p.m.

#### **SOURCE(S) OF WATER:**

Our water sources are:

Koser Road Spring- 407 Koser Road Lititz, PA 17543

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Vaughn Road Well- 5856 Vaughn Road East, Petersburg, PA 17520

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Lancaster City Interconnection- 5181 Main Street East Petersburg, PA 17522

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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) of 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](http://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 South Central Regional Office, Records Management Unit at (717) 705-4732.

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, 2021 to December 31, 2021. 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 to the MCLGs as feasible 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)

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

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

*ppq* = parts per quadrillion, or picograms per liter

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

*ppt* = parts per trillion, or nanograms per liter

**DETECTED SAMPLE RESULTS:**

<b>Chemical Contaminants</b>								
<b>Contaminant</b>	<b>MCL in CCR Units</b>	<b>MCLG</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>Units</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Distribution Chlorine	4	4	2.28	1.19 - 2.28	ppm	2021	N	Water additive used to control Microbes.
Trihalomethanes (TTHM)	80	80	15.10	3.44 - 48.8	ppb	2021	N	Byproduct of Disinfection.
Haloacetic acids HAA5	60	60	5.15	0 - 21.8	ppb	2021	N	Byproduct of Disinfection.
Nitrates- Spring	10	10	5	5 - 6	ppm	2021	N	Run off from fertilizer use, Erosion of natural deposits.
Nitrates- Well	10	10	6	5.75 - 6.08	ppm	2021	N	Run off from fertilizer use, Erosion of natural deposits.
Fluoride	2*	2	0.1	- - -	ppm	5-25-21	N	Water additive that promotes strong teeth.

\*EPA MCL for Fluoride is 4 ppm. Pennsylvania has set a lower MCL to better protect human health.

<b>Entry Point Disinfectant Residual</b>							
<b>Contaminant</b>	<b>Minimum Disinfectant Residual</b>	<b>Lowest Level Detected</b>	<b>Range of Detections</b>	<b>Units</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Spring	0.2	0.02	0.02 - 2.38	ppm	2021	Y	Water additive used to control microbes.
Well	0.40	0.67	0.67 - 2.60	ppm	2021	N	Water additive used to control microbes.

<b>Lead &amp; Copper</b>								
<b>Contaminant</b>	<b>Action Level (AL)</b>	<b>MCLG</b>	<b>90<sup>th</sup> Percentile Value</b>	<b>Units</b>	<b>Sample Date</b>	<b># of Sites Above AL of Total Sites</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Lead	15	0	4.0	ppb	2019	0 of 20	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.235	ppm	2019	0 of 20	N	Corrosion of household plumbing.

<b>Microbial (related to Assessments/Corrective Actions regarding TC positive results)</b>					
<b>Contaminants</b>	<b>TT</b>	<b>MCLG</b>	<b>Assessments/ Corrective Actions</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Total Coliform Bacteria	Any system that has failed to complete all the required assessments <b>or</b> correct all identified sanitary defects, is in violation of the treatment technique requirement	0	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

<b>Microbial (related to E. coli)</b>					
<b>Contaminants</b>	<b>MCL</b>	<b>MCLG</b>	<b>Positive Sample(s)</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
E. coli	Routine and repeat samples are total coliform-positive, <b>and</b> either is <i>E. coli</i> -positive <b>or</b> system fails to take repeat samples following <i>E. coli</i> -positive routine sample <b>or</b> system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	0	0	N	Human and animal fecal waste.
<b>Contaminants</b>	<b>TT</b>	<b>MCLG</b>	<b>Assessments/ Corrective Actions</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
E. coli	Any system that has failed to complete all the required assessments <b>or</b> correct all identified sanitary defects, is in violation of the treatment technique requirement	0	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

<b>Turbidity</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=2 NTU for a single measurement	0	0.352	9-3-21	N	Soil runoff.
	TT= at least 95% of monthly samples ≤1.0 NTU		100%	N/A	N	

**DETECTED SAMPLE RESULTS: SUSQUEHANNA WATER TREATMENT PLANT; ENTRY POINT 101 RESULTS ARE FROM LANCASTER CITY PWSID #7360058**

Chemical Contaminant	MCL in CCR units	MCLG	Highest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Fluoride	2*	2	0.65	---	ppm	2021	N	Water additive that promotes strong teeth.
Barium	2	2	0.019	---	ppm	2021	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

LANCASTER CITY PWSID #7360058 \*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Contaminant	MCL	MCLG	Level detected	Sample date	Violation Y/N	Sources of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.05 NTU	8/10/21	N	Soil runoff.
	TT=at least 95% of monthly samples≤0.15 NTU		≤0.15 NTU 100% of the time	Jan. - Dec. 2021	N	

<b>Total Organic Carbon (TOC)</b>					
Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	0%-35%	30%-45%	0	N	Naturally present in the environment.

<b>Entry Point Disinfectant Residual: Susquehanna and Conestoga Treatment Plants</b>							
Contaminant	MinRDL	Lowest Level Detected	Range of Detections	Units	Date of Lowest Sample	Violation Y/N	Sources of Contamination
Susquehanna Plant Chlorine	0.20	0.55	0.55 – 2.31	ppm	5/14/21	N	Water additive used to control microbes.
Conestoga Plant Chlorine	0.20	0.53	0.42 – 1.66	ppm	5/4/21	N	Water additive used to control microbes.

### **Additional Violations:**

**Tier 1 Public notification Notice: Failure to respond to a Disinfection Treatment Breakdown.** Water samples taken on May 2, 2021, showed a disinfectant residual concentration of 0.02 mg/L, which constituted a breakdown in treatment. To correct the problem the water operator shut down production pumps and backflushed the water from the distribution system until the chlorine residuals were above the state's DEP standards. Bacteria tests sampled May 4, 2021, at the first water service in the distribution system showed no bacteria present. East Petersburg Borough Water Department is required to maintain a disinfection residual of 0.20 mg/L in the water supplied to consumers. PA DEP was not notified within 1 hour. As a result of this breakdown in treatment, there was a risk that the water may have contained disease causing organisms.

### ***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-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).

#### **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. East Petersburg Borough 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>.

#### **Information about 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 of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.