2022 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #:1090082 Quakertown Borough Water Department

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

We want you to be informed about your water supply. 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: **Steven Crotzer, Water Superintendent at 215-536- 5855**. **Monday through Friday 7:00am to 3:30pm.**

SOURCE(S) OF WATER:

Our water sources are derived from a network of eleven operating wells. These wells are located in and around town and are part of a geologic formation known as the Brunswick formation. The Department of Environmental Protection (DEP) has completed a source water assessment for the groundwater sources for this system and has determined that the potential for contamination varies from low to high depending on the location of the well. Information on source water assessments is available on the DEP Web site at www.depweb.state.pa.us (DEP keyword "source water").

A summary report of the Assessment is available on the Source Water Assessment & Protection Webpage at http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm. Complete reports were distributed to municipalities, water suppliers, local planning agencies and PADEP offices. Copies of the complete reportare available for review at the Pa. DEP Southeast Regional Office, Records Management Unit at (484) 250-5980.

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 organtransplants, 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 microbialcontaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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, may come from sewage treatment plants, septic systems,agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, 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, andresidential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, 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 prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottledwater 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 WaterHotline (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, 2022. The State allows us to monitor 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 dates have been noted on the sampling results table.

Chemical Contaminant	MCL In CCR Units	MCLG	Highest Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Chlorine (2022) (Distribution)	MRDL = 4	MRDL = 4	1.17 Feb. 2022	0.88 – 1.17	ppm	No	Water additive used to control microbes
Trihalomethanes (TTHM) (2022)	80	N/A	40.82 * 4th Quarter	16.80 – 72.10	ppb	No	By-product of drinking water chlorination
Haloacetic Acids Five(HAA5) (2022)	60	N/A	16.79 * 3rd Quarter	5.35 – 30.20	ppb	No	By-product of drinking water chlorination
Arsenic 2022	10	0	7.4	0.00-7.40	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (9/27/22)	2	2	0.45	0.0199-0.45	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (9/27/22)	100	100	1.70	0.00-1.70	ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (9/27/22)	2 **	2 **	0.32	0.00-0.32	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (2022)	10	10	0.77	0.0685 – 0.77	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion ofnatural deposits
Tetrachloroethylene (2022)	5	0	1.19	0.00 – 1.19	ppb	No	Discharge from factories and dry cleaners
Combined Radium (2020)	5	0	3.41	0.00 – 3.41	pCi/l	No	Erosion of natural deposits
Combined Uranium (2020)	30	0	1.75	N/A	ppb	No	Erosion of natural deposits
Alpha emitters (2020)	15	0	3.44	0.00 – 3.44	pCi/l	No	Erosion of natural deposits

Entry Point Disinfectant Residual

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Chlorine (2022) Entry Point 101 Entry Points 102-108	 0.50 0.40	 0.65 – 6/02/22 0.41 – 9/08/22	 0.65-1.56 0.41-1.59	 ppm ppm	 No No	Water additive used to controlmicrobes.

* Indicates the highest running annual average calculated during the year 2022.

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

Contaminant	Action Level (AL)	MCLG	90th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation of TT Y/N	Sources of Contamination
Lead (2022)	15	0	1.20	ppb	0 out of 33	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (2022)	1.3	1.3	0.798	ppm	1 out of 33	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

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. The Quakertown 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 tapfor 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.

Notice of Unregulated Contaminant Monitoring Rule Completed - UCMR3 & UCMR4

Our water system completed monitoring for several unregulated contaminants. Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. The purpose of monitoringfor these contaminants is to help the EPA decide whether the contaminants should be regulated. The table belowdetails the unregulated contaminants that were detected in the water system. For more information seehttps://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule.

Unregulated Contaminants					
Substance (units)	Year Sampled	MCL / MCLG	Average Amount Detected	Range Low - High	Typical Source
Methyl Tertiary-ButylEther (MTBE) (ppm)	2022	Not Regulated	0.00054	0.00 – 0.00054	MTBE is a member of a group of chemicals commonly known as fuel oxygenates. Oxygenates are added to fuel to increase its oxygen content
HAA9 Distribution System(ppm)	2019	Not Regulated	27.41	18.40-27.41	By-product of drinking water chlorination
HAA5 Distribution System(ppm)	2019	Not Regulated	16.11	10.60-16.11	By-product of drinking water chlorination
HAA6br Distribution System(ppm)	2019	Not Regulated	14.21	9.20-14.21	By-product of drinking water chlorination
Germanium (ppm)	2019	Not Regulated	0.86	0.00- 0.86	Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics, and solar applications
Iron	2022	Not Regulated	0.353	0.00-0.353	Naturally occurring element; iron pipes also may be a source of iron in drinking water
Nickel (ppm)	2022	Not Regulated	0.001	0.0005-0.001	Leaching from metals in contact with drinking water, erosion in the production of steel alloys.
Manganese (ppm)	2022	Not Regulated	0.0583	0.00- 0.0583	Naturally occurring element; commercially available in combination with other elements and minerals; used insteel production, fertilizer, batteries, and fireworks; drinking water and wastewatertreatment chemical; essential nutrient

Notice of PFAS Sampling

On September 9, 2020 representatives from the Pennsylvania Department of Environmental Protection Bureau of Safe Drinking Water conducted a site visit to collect sample to be analyzed for the presence of 18 per- and polyfluoroalkyl substances (PFAS) in the drinking water supply.
https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos

PFAS Results

Substance (all results in ng/L)	Entry Point 101	Entry Point 102	Entry Point 104	Entry Point 105	EPA Combined Health Advisory Limit (HAL)
Perfluorononanoic acid (PFNA)	ND	ND	ND	18.1	Not Applicable
Perfluorooctane sulfonate (PFOS)	ND	11.2	4.0	7.0	70 ng/L
Perfluorooctanoic acid (PFOA).	ND	9.3	ND	4.4	70 ng/L

- Both PFOS levels and PFOA levels are not detected at **Entry Point 101**. The sum of these results for PFOS and PFOA (not detected) is below the US EPA's Combined Lifetime Health Advisory Level (HAL) for PFOS and PFOA of 70 ng/L.EPA has not established a HAL for the other PFAS contaminants.
- The PFOS levels are 11.2 ng/L and the PFOA levels are 9.3 ng/L for a sum total of 20.5 ng/L at **Entry Point 102**. The sum of these results for PFOS and PFOA is below the US EPA's Combined Lifetime Health Advisory Level (HAL) for PFOS and PFOA of 70 ng/L.
- The PFOS levels are 4.0 ng/L and the PFOA levels are not detected for a sum total of 4.0 ng/L at **Entry Point 104**. The sum of these results for PFOS and PFOA is below the US EPA's Combined Lifetime Health Advisory Level (HAL) for PFOS and PFOA of 70 ng/L.
- The PFOS levels are 7.0 ng/L and the PFOA levels are 4.4 ng/L for a sum total of 11.4 ng/L at **Entry Point 105**. The sum of these results for PFOS and PFOA is below the US EPA's Combined Lifetime Health Advisory Level (HAL) for PFOS and PFOA of 70 ng/L.

Health Effects: ***Arsenic:*** *While your drinking water meets EPA's standard for arsenic, it does contain lowlevels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

Violations: During 2022 we were required to monitor for Radium 226, Radium 228, and Gross Alpha at Entry Point 101 but failed to do so. The required samples were taken on 2/14/23 with no detection of the contaminants.Public Notification regarding these violations is enclosed at the end of this report.

DEFINITIONS AND ABBREVIATIONS:

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 areset 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.
Minimum Residual Disinfectant Level – The minimum level of residual disinfectant required at the entry point to the distribution system.
Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which thereis 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)
ppb = parts per billion, or micrograms per liter (µg/L)
ppm = parts per million, or milligrams per liter (mg/L)
ppt = parts per trillion, or nanograms per liter (ng/L)
ppq = parts per quadrillion, or picograms per liter
ND = Not Detected
N/A = Not Applicable

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 the Quakertown Borough Water Department_

Our water system violated a drinking water standard over the past year. Even though this was not an emergency, 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 2022 we were required to monitor for Radium 226, Radium 228, and Gross Alpha at Entry Point 101 but failed to do so 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 contaminants we did not properly test for during the last year, how often we are supposed to sample for Radium 226, Radium 228, and Gross Alpha and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were taken
Radium 226	Every 9 Years	0	2022	2/14/23
Radium 228	Every 9 Years	0	2022	2/14/23
Gross Alpha	Every 9 Years	0	2022	2/14/23

Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

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 MCL over many years may have an increased risk of getting cancer.

What happened? What was done?

During 2022 we were required to monitor for Radium 226, Radium 228, and Gross Alpha at Entry Point 101 but failed to do so. The required samples were taken on 2/14/23 with no detection of the contaminants.

For more information, please contact Steven Crotzer, Water Superintendent at 215-536- 5855.

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.

This notice is being sent to you by the Quakertown Borough Water Department.

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