2009 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 **Michael Brzezicki, Water Superintendent at 215-536-5855**.

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").

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).

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).

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, 2009. 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.

DETECTED SAMPLE RESULTS

Chemical Contaminant	MCL In CCR Units	MCLG	Highest Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Chlorine	MRDL = 4	MRDL = 4	0.73	0.55 – 0.73	ppm	No	Water additive used to control microbes
Trihalomethanes (TTHM)	80	80	38.6	32.9– 38.6	ppb	No	By-product of drinking water chlorination
Haloacetic acids five (HAA5)	60	60	11.4	6.5 – 11.4	ppb	No	By-product of drinking water chlorination
Arsenic (sampled in 2006)	10	0	13.3	1.3 – 13.3	ppb	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Nitrate	10	10	0.9	0.15 – 0.9	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Combined Radium (sampled In 2008)	5	0	2.24	0.76 – 2.24	pCi/l	No	Erosion of natural deposits
MTBE (methel-tert - butyl-ether) (sampled in 2006)	This is not a regulated contaminant		1.3	1.3	ppb	No	Although detected in (one) of our wells, this is not a regulated contaminant. USEPA issued an advisory for results of >20 ppb

Microbiological Contaminants					
Contaminant	**MCL**	**MCLG**	**Highest # of positive samples**	**Violation Y/N**	**Sources of Contamination**
Total Coliform Bacteria	More than1 positive monthly sample	0	1 positive samples in 2009	No	Naturally present in the environment.
Fecal Coliform or E.coli	0	0	None	No	Human and animal fecal waste.

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 (2007)	15	0	3.8	ppb	0	No	Corrosion of household plumbing
Copper (2007)	1.3	1.3	0.707	ppm	0	No	Corrosion of household plumbing

HEALTH EFFECTS:

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

OTHER VIOLATIONS:

About our Arsenic Violation in 2009: One of our facilities Arsenic level was over the MCL. We tried to lower the arsenic level by restricting the amount of water being pumped from the well. Unfortunately our attempts were unsuccessful. We sent out a notification per the State DEP requirements to inform everyone who receives our water of the violation. Any time we use this facility we must re-test it quarterly for arsenic and if it is over the MCL we are required to send out another notification to keep you informed. The Quakertown Borough Water Department continues to work on the process of constructing a new treatment facility for the removal of the arsenic. We decided to shut this facility down in March of 2010 and we do not intend to use it until the new treatment facility has been constructed. If you would like more information about Arsenic, please call Michael Brzezicki, Water Superintendent at (215-536-5855), or the Bucks County Health Department at (215-345-3893).

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 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.
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)
ppt = parts per trillion, or nanograms per liter
ppm = parts per million, or milligrams per liter (mg/L)
ppq = parts per quadrillion, or picograms per liter