pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

2013 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 7220040 NAME: Halifax Area Water and Sewer Authority

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 our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Jeff Grosser at 717-896-8149. 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 the third Tuesday at 7:00PM at the Halifax Borough Building.

SOURCE(S) OF WATER:

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

Your water comes from five mountain springs and three drilled wells, all located within Halifax Township.

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 & Protection web* page at (http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm). 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 Central Regional Office, Records Management Unit at (717) 705-4708.

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, 2013. 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.

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:

Chemical Contaminants

Contaminant	MCL In CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Arsenic	10	10	9.86	3 - 15	ppb	2013	Y	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Nitrate	10	10	1.935	1.35 – 2.52	Mg/L	2013	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (IOC)	50	50	2.75	2.6 – 2.9	ppm	2013	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Chloroform (THM)	N/A	N/A	.00242	0.0021 – 0.00274	Mg/l	2013	N	
Trihalomethanes	80	N/A	9.85	9 – 10.7	Mg/l	2013	N	By-product of drinking water chlorination
Bromoform (THM)	N/A	N/A	0.00125	0.0012 – 0.0013	Mg/l	2013	N	
Bromodichloromethne (THM)	N/A	N/A	.0.00316	0.00282 – 0.0035	Mg/l	2013	N	
Chlorodibromomethane (THM)	N/A	N/A	0.00303	0.00288 – 0.00317	Mg/l	2013	N	
Barium (IOC)	2		0.14	0.05 – 0.23	Mg/l	2012	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nickel (IOC)			0.0033	0.0033	Mg/l	2012	N	
Combined Uranium	5		1.62	1.62	Ug/l	2012	N	Erosion of natural deposits

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

Entry Point Disinfectant Residual

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.4	0.4	0.4 – 1.75	ppm	2013	N	Water additive used to control microbes.

Lead and Copper

Contaminant	Action Level (AL)	MCLG	90th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	3	ppb	0 – 20 sites	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.8	ppm	0 – 20 Sites	N	Corrosion of household plumbing.

Microbial

Contaminants	MCL	MCLG	Highest # or % of Positive Samples	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	For systems that collect <40 samples/month: • More than 1 positive monthly sample For systems that collect ≥ 40 samples/month: • 5% of monthly samples are positive	0	0	N	Naturally present in the environment.
Fecal Coliform Bacteria or *E. coli*	0	0	0	N	Human and animal fecal waste.

Raw Source Water Microbial					
Contaminants	MCLG	Total # of Positive Samples	Dates	Violation Y/N	Sources of Contamination
E. coli	0	0	2013	N	Human and animal fecal waste.

HEALTH EFFECTS:

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.*

Arsenic: *While your drinking water meets EPA's standard for arsenic, it does contain low levels 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.*

OTHER VIOLATIONS:

The Authority's sample results in the first two quarters of 2013 had exceed Maximum contaminant Level. This resulted in a Teir II Notification of the customers affected by this. Since then the sample results have been in acceptable ranges.

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. Halifax Area Water and Sewer 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*.

OTHER INFORMATION: