



## 2011 ANNUAL DRINKING WATER QUALITY REPORT TERRE HILL BOROUGH PWSID # 7360119



*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 Robert R. Rissler at (717) 445-4581. 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 2nd Tuesday of each month at 7 PM at the Terre Hill Borough Town Clock Hall, 300 Broad Street, Terre Hill, PA.

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

Terre Hill Borough has three wells that supply the water system. Well #1 is located off Vine Street in the northwest portion of the Borough, next to the Borough's water storage tanks. Well #3 is located off of Willow Street, adjacent to the Borough Garage. Well #6 is located off of Gentle Drive, just outside the Borough in East Earl Township. Most of our water is pumped from the Hammer Creek Aquifer. Well #3 and Well #6 pump directly into the distribution system and Well #1 pump directly into our 340,000 gallon water storage tanks.

A *Source Water Assessment* of our sources was completed by the PA Department of Environmental Protection (PA DEP). The *Assessment* found that our water sources are potentially most susceptible to contamination from runoff from farming operations and development construction and spills from roadway accidents. Overall, our sources have high risk of significant contamination. The Source Water Assessment is available for review at our office at 300 Broad Street, Terre Hill, PA.

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, 2011. 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.

### **OTHER INFORMATION:**

Violation of Drinking Water Standards:

Terre Hill Borough received a monitoring/reporting violation in 2011 for failure to test for Combined Radium in the April 1-June 30, 2011 quarter. The required analysis of the contaminant Combined Radium was missed by the laboratory. Even though there was no emergency, as our customers, you have a right to know what happened and what we did to correct the situation. 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 April-June 2011 we did not sample for combined radium and therefore cannot be sure of the quality of our drinking water during that time. Combined Radium is required to be tested quarterly; samples were taken as required in the third quarter 2011. For more information, please contact Robert R. Rissler at (717) 445-4581.

Terre Hill Borough was considered late in submitting one of the required chlorine residual testing reports to PA DEP due to a required field within the report not being completed. This reporting error had no effect upon your drinking water.

**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)

*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>
Barium	2	2	0.036	0.036	ppm	2010	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate	10	10	8.81	4.53 – 11.77	ppm	2011	Y	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Haloacetic Acids (HAA)	60	N/A	0.5	0 – 1	ppb	2009	N	By-product of drinking water disinfection
TTHMs [Total trihalomethanes]	80	N/A	5.5	4.6 – 6.4	ppb	2009	N	By product of drinking water chlorination
Chlorine	MRDL=4	MRDLG=4	0.71	0.23 – 1.74	ppm	2011	N	Water additive to control microbes

**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.

<b>Lead and 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># of Sites Above AL of Total Sites</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Lead	15	0	8	ppb	2 of 10	N	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	1.3	1.3	1.2	ppm	1 of 10	N	Corrosion of household plumbing.

<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>
Chlorine	0.40	0.40	0.40 – 2.28	ppm	2011	N	Water additive used to control microbes.

**HEALTH EFFECTS:**

*Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.*

**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. Terre Hill 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>.