

# 2012 Annual Drinking Water Quality Report

## Unregulated Contaminants Table

| Contaminant               | Average | Range       | Contaminant             | Average | Range       | Contaminant            | Average | Range       |
|---------------------------|---------|-------------|-------------------------|---------|-------------|------------------------|---------|-------------|
| 1,1 - Dichloropropene     | ND      | 0.000-0.000 | Bromobenzene            | ND      | 0.000-0.000 | Isopropylbenzene       | ND      | 0.000-0.000 |
| 1,1,1,2-Tetrachloroethane | ND      | 0.000-0.000 | Bromochloromethane      | ND      | 0.000-0.000 | M-Dichlorobenzene      | ND      | 0.000-0.000 |
| 1,1,2,2-Tetrachloroethane | ND      | 0.000-0.000 | Bromodichloromethane    | ND      | 0.000-0.000 | Methomyl               | ND      | 0.000-0.000 |
| 1,1-Dichloroethane        | ND      | 0.000-0.000 | Bromoform               | ND      | 0.000-0.000 | MTBE                   | ND      | 0.000-0.000 |
| 1,2,3 - Trichlorobenzene  | ND      | 0.000-0.000 | Bromomethane            | ND      | 0.000-0.000 | Metolachlor            | ND      | 0.000-0.000 |
| 1,2,3 - Trichloropropane  | ND      | 0.000-0.000 | Butachlor               | ND      | 0.000-0.000 | Metribuzin             | ND      | 0.000-0.000 |
| 1,2,4 - Trimethylbenzene  | ND      | 0.000-0.000 | Carbaryl                | ND      | 0.000-0.000 | N - Butylbenzene       | ND      | 0.000-0.000 |
| 1,3 - Dichloropropane     | ND      | 0.000-0.000 | Chloroethane            | ND      | 0.000-0.000 | Naphthalene            | ND      | 0.000-0.000 |
| 1,3 - Dichloropropene     | ND      | 0.000-0.000 | Chloroform              | ND      | 0.000-0.000 | N-Propylbenzene        | ND      | 0.000-0.000 |
| 1,3,5 - Trimethylbenzene  | ND      | 0.000-0.000 | Chloromethane           | ND      | 0.000-0.000 | O-Chlorotoluene        | ND      | 0.000-0.000 |
| 2,2 - Dichloropropane     | ND      | 0.000-0.000 | Dibromochloromethane    | ND      | 0.000-0.000 | P-Chlorotoluene        | ND      | 0.000-0.000 |
| 3-Hydroxycarbofuran       | ND      | 0.000-0.000 | Dibromomethane          | ND      | 0.000-0.000 | P-Isopropyltoluene     | ND      | 0.000-0.000 |
| Aldicarb                  | ND      | 0.000-0.000 | Dicamba                 | ND      | 0.000-0.000 | Propachlor             | ND      | 0.000-0.000 |
| Aldicarb Sulfone          | ND      | 0.000-0.000 | Dichlorodifluoromethane | ND      | 0.000-0.000 | Sec - Butylbenzene     | ND      | 0.000-0.000 |
| Aldicarb Sulfoxide        | ND      | 0.000-0.000 | Dieldrin                | ND      | 0.000-0.000 | Tert - Butylbenzene    | ND      | 0.000-0.000 |
| Aldrin                    | ND      | 0.000-0.000 | Hexachlorobutadiene     | ND      | 0.000-0.000 | Trichlorofluoromethane | ND      | 0.000-0.000 |

## Table of Detected Contaminants

| Contaminant                        | Violation Y/N | Level Detected | Unit Measurement | MCLG   | MCL    | Likely Source of Contamination   |
|------------------------------------|---------------|----------------|------------------|--------|--------|--|
| Turbidity                          | N             | 0.08-0.33      | NTU              | n/a    | TT     | Soil Runoff  |
| Barium                             | N             | 0.52-0.64      | ppm              | 2      | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits             |
| Chlorine                           | N             | 1.03-1.43      | ppm              | MRLG=4 | MRLD=4 | Water Additive used to control microbes  |
| Copper                             | N             | 0.002-0.003    | ppm              | 1.3    | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Di(2-ethylhexyl) phthalate         | N             | 1              | ppb              | 0      | 6      | Discharge from rubber and chemical factories   |
| Nitrate (as Nitrogen)              | N             | 0.55-0.94      | ppm              | 10     | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits            |
| Total Nitrate and Nitrite          | N             | 0.55-0.94      | ppm              | 10     | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits            |
| Total Organic Carbon (TOC)         | N             | 0.2-0.3        | ppm              | n/a    | TT     | Naturally present in the environment   |
| HAA5 (Haloacetic acids) (LRAA)     | N             | 21-30          | ppb              | 0      | 60     | By-product of drinking water chlorination  |
| THM (Total trihalomethanes) (LRAA) | N             | 38-65          | ppb              | 0      | 80     | By-product of drinking water chlorination  |

### Bacteriological Contaminants:

(1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.  
 (2) Fecal coliform (Coli). Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.  
 (3) Fecal Indicators. Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.  
 (4) Turbidity. Turbidity has a health effect. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

### Radioactive Contaminants:

(5) Beta/Photon emitters. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.  
 (6) Alpha emitters. 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.  
 (7) Combined Radium 226/228. 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.  
 (8) Uranium. Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of cancer and kidney toxicity.

### Inorganic Contaminants:

(9) Antimony. Some people who drink water containing antimony in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.  
 (10) Arsenic. 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.  
 (11) Asbestos. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.  
 (12) Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.  
 (13) Beryllium. Some people who drink water containing beryllium in excess of the MCL over many years could develop intestinal lesions.  
 (14) Bromate. Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.  
 (15) Cadmium. Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.  
 (16) Chloramines. Some people who use water containing chloramines in excess of the MRLD could experience irritative effects to their eyes and nose. Some people who drink water containing chloramines in excess of the MRLD could experience stomach discomfort.  
 (17) Chlorine. Some people who use water containing chlorine in excess of the MRLD could experience irritative effects to their eyes and nose. Some people who drink water containing chlorine in excess of the MRLD could experience stomach discomfort.  
 (18) Chlorine dioxide. Some infants and young children who drink water containing chlorine dioxide in excess of the MRLD could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRLD. Some people may experience anemia.  
 (19) Chlorite. Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

(20) Chromium. Some people who use water containing chromium in excess of the MCL over many years could experience allergic dermatitis.  
 (21) Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.  
 (22) Cyanide. Some people who drink water containing cyanide in excess of the MCL over many years could experience nerve damage or problems with their thyroid.  
 (23) Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.  
 (24) Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.  
 (25) Mercury (inorganic). Some people who drink water containing inorganic mercury in excess of the MCL over many years could experience kidney damage.  
 (26) 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.  
 (27) Nitrite. Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.  
 (28) Total Nitrate and Nitrite. Infants below the age of six months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.  
 (29) Selenium. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail loss, numbness in fingers or toes, or problems with their circulation.  
 (30) Thallium. Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

### Organic Contaminants:

(31) Acrylamide. Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.  
 (32) Atrazine. Some people who drink water containing atrazine in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.  
 (33) Atrazine. Some people who drink water containing atrazine in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.  
 (34) Benzene. Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets and may have an increased risk of getting cancer.  
 (35) Benz[a]pyrene (PAH). Some people who drink water containing benz[a]pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.  
 (36) Carbendazim. Some people who drink water containing carbendazim in excess of the MCL over many years could experience problems with their blood or nervous or reproductive systems.  
 (37) Carbon tetrachloride. Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.  
 (38) Chlorobenzene. Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.  
 (39) Chlorobenzene. Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.  
 (40) 2,4-D. Some people who drink water containing the weed killer 2,4-D in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.

(41) Dalapon. Some people who drink water containing dalapon in excess of the MCL over many years could experience minor kidney changes.  
 (42) Dibromochloropropane (DBCP). Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.  
 (43) D-Dichlorobenzene. Some people who drink water containing d-dichlorobenzene in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.  
 (44) p-Dichlorobenzene. Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia damage to their liver, kidneys, or spleen or changes in their blood.  
 (45) 1,2-Dichloroethane. Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.  
 (46) 1,1-Dichloroethylene. Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.  
 (47) cis-1,2-Dichloroethylene. Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.  
 (48) trans-1,2-Dichloroethylene. Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.  
 (49) Dichloromethane. Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.  
 (50) 1,2-Dichloropropane. Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.  
 (51) Di (2-ethylhexyl) adipate. Some people who drink water containing di (2-ethylhexyl) adipate in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.  
 (52) Di (2-ethylhexyl) phthalate. Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.  
 (53) Dinoseb. Some people who drink water containing dinoseb in excess of the MCL over many years could experience reproductive difficulties.  
 (54) Dioxin (2,3,7,8-TCDD). Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.  
 (55) Diquat. Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.  
 (56) Endothal. Some people who drink water containing endothal in excess of the MCL over many years could experience problems with their stomach or intestines.  
 (57) Eridin. Some people who drink water containing eridin in excess of the MCL over many years could experience liver problems.  
 (58) Epichlorohydrin. Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.  
 (59) Ethylbenzene. Some people who drink water containing ethylbenzene in excess of the MCL over many years could experience problems with their liver or kidneys.  
 (60) Ethylene dibromide. Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.  
 (61) Glyphosate. Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.  
 (62) Haloacetic Acids (HAA). Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.  
 (63) Heptachlor. Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.  
 (64) Heptachlor epoxide. Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.  
 (65) Hexachlorobenzene. Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or

adverse reproductive effects, and may have an increased risk of getting cancer.  
 (66) Hexachlorocyclopentadiene. Some people who drink water containing hexachlorocyclopentadiene in excess of the MCL over many years could experience problems with their kidneys or stomach.  
 (67) Lindane. Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.  
 (68) Methoxychlor. Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.  
 (69) Oxydemeton-methyl. Some people who drink water containing oxydemeton-methyl in excess of the MCL over many years could experience slight nervous system effects.  
 (70) Pentachlorophenol. Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.  
 (71) Picloram. Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.  
 (72) PCBs (Polychlorinated biphenyls). Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thyroid gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.  
 (73) Simazine. Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.  
 (74) Styrene. Some people who drink water containing styrene in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.  
 (75) tetrachloroethylene. Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.  
 (76) Toluene. Some people who drink water containing toluene in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.  
 (77) Total Organic Carbon. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.  
 (78) THMs (Total trihalomethanes). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.  
 (79) Toxaphene. Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.  
 (80) 2,4,5-T (Silvex). Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.  
 (81) 1,2,4-Trichlorobenzene. Some people who drink water containing 1,2,4-trichlorobenzene in excess of the MCL over many years could experience changes in their adrenal glands.  
 (82) 1,1,1-Trichloroethane. Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.  
 (83) 1,1,2-Trichloroethane. Some people who drink water containing 1,1,2-trichloroethane in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.  
 (84) Trichloroethylene. Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.  
 (85) Vinyl Chloride. Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.  
 (86) Xylenes. Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

# Pelham Water WORKS

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# Annual Drinking Water Quality Report

## PELHAM WATER WORKS

We are very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is wells that draw from Copper Ridge Dolomite and Longview Limestone Aquifers. We treat our water by adding chlorine at each well. Pelham Water Works has completed its Source Water Assessment Program as required by the Alabama Department of Environmental Management and a copy is available for viewing at the water works office.

We are pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact the City of Pelham's Public Works Director, Mr. Eddy Jowers at Pelham Water Works, 205-620-6413. We want our valued customers to be informed about their water utility. If you want to attend any of our regularly scheduled City Council Meetings, they are on the 1st and 3rd Monday of each month. Mayor Gary W. Waters is the Superintendent of the Water Works and the City Council members serve as the Water Board. The Council Members include Rick Hayes, Ron Scott, Beth McMillan, Maurice Mercer and Karyl Rice.

Pelham Water Works routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st of 2012. Certain contaminants are monitored less frequently than annually. The data presented is from the most recent testing done in accordance with applicable regulations. However, if the data is more than five years old it is not a requirement to be included.

Based on a study conducted by ADEM with the approval of EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for any of these contaminants was not required.

### DEFINITIONS

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present.

**Not Tested (NT)** - no testing was required during this monitoring period.

**Parts per million (ppm)** or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb)** or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per trillion (ppt)** or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Parts per quadrillion (ppq)** or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

**Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.

**Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL)** - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Action Level** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Maximum Contaminant Level** - The "Maximum Allowed" (MCL) is 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** - The "Goal" (MCLG) is 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 Goal or 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.

**Maximum Residual Disinfectant Level or 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.

**RAA** - Running annual average.

**LRAA** - Locational running annual average.

### WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

All 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 the 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 at 1-800-426-4791.

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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activity.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 of components associated with service lines and home plumbing. Pelham Water Works 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>.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

We at Pelham Water Works work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

### TEST RESULTS

| Contaminant                                    | Violation Y/N | Level Detected | Unit Measurement | MCLG   | MCL      | Likely Source of Contamination  |
|--|---------------|----------------|------------------|--|----------|---|
| <b>Bacteriological Contaminants</b>            |               |                |                  |  |          |   |
| 1. Total Coliform Bacteria                     | N             | ND             |                  | MCLG=0<br>MCL=presence of coliform bacteria in <5% of monthly samples, or if a routine sample and a follow up repeat sample are total coliform positive and one is also fecal coliform or E. coli positive |          | Naturally present in the environment  |
| 2. Fecal coliform and E. coli                  | N             | ND             |                  |  |          | Human and animal fecal waste  |
| 3. Fecal Indicators (enterococci or coliphage) | N             | ND             |                  | None   | TT       | Human and animal fecal waste  |
| 4. Turbidity                                   | N             | 0.08-0.33      | NTU              | n/a  | TT       | Soil runoff   |
| <b>Radiological Contaminants</b>               |               |                |                  |  |          |   |
| 5. Beta/alpha emitters                         | N             | ND in 2004     | mrem/yr          | 0  | 4        | Decay of natural and man-made deposits  |
| 6. Alpha emitters                              | N             | 2.2            | pCi/L            | 0  | 15       | Erosion of natural deposits   |
| 7. Combined radium -226/228                    | N             | <0.6-1.4       | pCi/L            | 0  | 5        | Erosion of natural deposits   |
| 8. Uranium                                     | N             | NT             | ppb              | 0  | 30       | Soil runoff   |
| <b>Inorganic Contaminants</b>                  |               |                |                  |  |          |   |
| 9. Antimony                                    | N             | ND             | ppb              | 6  | 6        | Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder   |
| 10. Arsenic                                    | N             | ND             | ppb              | n/a  | 10       | Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes                              |
| 11. Asbestos                                   | N             | ND in 2006     | MFL              | 7  | 7        | Decay of asbestos cement water mains, erosion of natural deposits   |
| 12. Barium                                     | N             | 0.52-0.64      | ppm              | 2  | 2        | Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits  |
| 13. Beryllium                                  | N             | ND             | ppb              | 4  | 4        | Discharge from metal refineries and coal-burning factories, discharge from electrical, aerospace, and defense industries            |
| 14. Bromate                                    | N             | NT             | ppb              | 0  | 10       | By-product of drinking water chlorination   |
| 15. Cadmium                                    | N             | ND             | ppb              | 5  | 5        | Corrosion of galvanized pipes, erosion of natural deposits, discharge from metal refineries, runoff from waste batteries and paints |
| 16. Chloramines                                | N             | NT             | ppm              | MRDL G=4   | MRDL=4   | Water additive used to control microbes   |
| 17. Chlorine                                   | N             | 1.03-1.43      | ppm              | MRDL G=4   | MRDL=4   | Water Additive used to control microbes   |
| 18. Chlorine Dioxide                           | N             | NT             | ppb              | MRDL G=800   | MRDL=800 | Water Additive used to control microbes   |
| 19. Chlorite                                   | N             | NT             | ppb              | 800 ppb  | 1 ppm    | By-product of drinking water chlorination   |
| 20. Chromium                                   | N             | ND             | ppb              | 100  | 100      | Discharge from steel and pulp mills; erosion of natural deposits  |
| 21. Copper                                     | N             | 0.002-0.003    | ppm              | 1.3  | AL=1.3   | Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives                              |
| 22. Cyanide                                    | N             | ND             | ppb              | 200  | 200      | Discharge from steel/metal factories; discharge from plastic and fertilizer factories   |
| 23. Fluoride                                   | N             | ND             | ppm              | 4  | 4        | Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories           |
| 24. Lead                                       | N             | ND             | ppb              | 0  | AL=15    | Corrosion of household plumbing systems, erosion of natural deposits  |
| 25. Mercury (inorganic)                        | N             | ND             | ppb              | 2  | 2        | Erosion of natural deposits, discharge from refineries and factories, runoff from landfills, runoff from cropland                   |
| 26. Nitrate (as Nitrogen)                      | N             | 0.55-0.94      | ppm              | 10   | 10       | Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits   |
| 27. Nitrite (as Nitrogen)                      | N             | ND             | ppm              | 1  | 1        | Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits   |
| 28. Total Nitrate and Nitrite                  | N             | 0.55-0.94      | ppm              | 10   | 10       | Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits   |
| 29. Selenium                                   | N             | ND             | ppb              | 50   | 50       | Discharge from petroleum and metal refineries; erosion of natural deposits, discharge from mines                                    |
| 30. Thallium                                   | N             | ND             | ppb              | 0.5  | 2        | Leaching from ore-processing sites, discharge from electronics, glass, and drug factories   |
| <b>Organic Chemicals</b>                       |               |                |                  |  |          |   |
| 31. Acrylamide                                 | N             | ND in 2006     |                  | 0  | TT       | Added to water during sewage/wastewater treatment   |
| 32. Atrazine                                   | N             | ND             | ppb              | 0  | 2        | Runoff from herbicide used on row crops   |
| 33. Atrazine                                   | N             | ND             | ppb              | 3  | 3        | Runoff from herbicide used on row crops   |
| 34. Benzene                                    | N             | ND             | ppb              | 0  | 5        | Discharge from factories, leaching from gas storage tanks and landfills   |
| 35. Benzo(a)pyrene (PAH)                       | N             | ND             | ppt              | 0  | 200      | Leaching from linings of water storage tanks and distribution lines   |
| 36. Carbofuran                                 | N             | ND             | ppb              | 40   | 40       | Leaching of soil fumigant used on rice and alfalfa  |
| 37. Carbon tetrachloride                       | N             | ND             | ppb              | 0  | 5        | Discharge from chemical plants and other industrial activities  |
| 38. Chlordane                                  | N             | ND             | ppb              | 0  | 2        | Residue of banned pesticide   |
| 39. Chlorobenzene                              | N             | ND in 2006     | ppb              | 100  | 100      | Discharge from chemical and agricultural chemical factories   |
| 40. 2,4-D                                      | N             | ND             | ppb              | 70   | 70       | Runoff from herbicide used on row crops   |
| 41. Dalapon                                    | N             | ND             | ppb              | 200  | 200      | Runoff from herbicide used on rights of way   |
| 42. Dibromochloropropane                       | N             | ND             | ppt              | 0  | 200      | Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards   |
| 43. o-Dichlorobenzene                          | N             | ND             | ppb              | 600  | 600      | Discharge from industrial chemical factories  |
| 44. p-Dichlorobenzene                          | N             | ND             | ppb              | 75   | 75       | Discharge from industrial chemical factories  |
| 45. 1,2-Dichloroethane                         | N             | ND             | ppb              | 0  | 5        | Discharge from industrial chemical factories  |
| 46. 1,1-Dichloroethylene                       | N             | ND             | ppb              | 7  | 7        | Discharge from industrial chemical factories  |
| 47. cis-1,2-Dichloroethylene                   | N             | ND             | ppb              | 70   | 70       | Discharge from industrial chemical factories  |
| 48. trans-1,2-Dichloroethylene                 | N             | ND             | ppb              | 100  | 100      | Discharge from industrial chemical factories  |
| 49. Dichloromethane                            | N             | ND in 2007     | ppb              | 0  | 5        | Discharge from pharmaceutical and chemical factories  |
| 50. 1,2-Dichloropropane                        | N             | ND             | ppb              | 0  | 5        | Discharge from industrial chemical factories  |
| 51. Di(2-ethylhexyl) adipate                   | N             | ND             | ppb              | 400  | 400      | Discharge from chemical factories   |
| 52. Di(2-ethylhexyl) phthalate                 | N             | 1              | ppb              | 0  | 6        | Discharge from rubber and chemical factories  |
| 53. Dinoseb                                    | N             | ND             | ppb              | 7  | 7        | Runoff from herbicide used on soybeans and vegetables   |
| 54. Dioxin [2,3,7,8-TCDD]                      | N             | ND in 2006     | ppq              | 0  | 30       | Emissions from waste incineration and other combustion, discharge from chemical factories   |
| 55. Diquat                                     | N             | ND             | ppb              | 20   | 20       | Runoff from herbicide use   |
| 56. Endothal                                   | N             | ND             | ppb              | 100  | 100      | Runoff from herbicide use   |
| 57. Endrin                                     | N             | ND             | ppb              | 2  | 2        | Residue of banned insecticide   |
| 58. Epichlorohydrin                            | N             | ND in 2006     | ppb              | 0  | TT       | Discharge from industrial chemical factories, an impurity of some water treatment chemicals   |
| 59. Ethylbenzene                               | N             | ND             | ppb              | 700  | 700      | Discharge from petroleum refineries   |
| 60. Ethylene dibromide                         | N             | ND             | ppt              | 0  | 50       | Discharge from petroleum refineries   |
| 61. Glyphosate                                 | N             | ND             | ppb              | 700  | 700      | Runoff from herbicide use   |
| 62. HAA5 (Halooacetic Acids) (RAA)             | N             | 21-30          | ppb              | 0  | 60       | By-product of drinking water chlorination   |
| 63. Heptachlor                                 | N             | ND             | ppt              | 0  | 400      | Residue of banned pesticide   |
| 64. Heptachlor epoxide                         | N             | ND             | ppt              | 0  | 200      | Breakdown of heptachlor   |
| 65. Hexachlorobenzene                          | N             | ND             | ppb              | 0  | 1        | Discharge from metal refineries and agricultural chemical factories   |
| 66. Hexachlorocyclopentadiene                  | N             | ND             | ppb              | 50   | 50       | Discharge from chemical factories   |
| 67. Lindane                                    | N             | ND             | ppt              | 200  | 200      | Runoff/leaching from insecticide used on cattle, lumber, gardens  |
| 68. Methoxychlor                               | N             | ND             | ppb              | 40   | 40       | Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock   |
| 69. Oxamyl [Vydate]                            | N             | ND             | ppb              | 200  | 200      | Runoff/leaching from insecticide used on apples, potatoes and tomatoes  |
| 70. Pentachlorophenol                          | N             | ND             | ppb              | 0  | 1        | Discharge from wood preserving factories  |
| 71. Picloram                                   | N             | ND             | ppb              | 500  | 500      | Herbicide runoff  |
| 72. PCBs [Polychlorinated biphenyls]           | N             | ND             | ppt              | 0  | 500      | Runoff from landfills, discharge of waste chemicals   |
| 73. Simazine                                   | N             | ND             | ppb              | 4  | 4        | Herbicide runoff  |
| 74. Styrene                                    | N             | ND             | ppb              | 100  | 100      | Discharge from rubber and plastic factories, leaching from landfills  |
| 75. Tetrachloroethylene                        | N             | ND             | ppb              | 0  | 5        | Leaching from PVC pipes, discharge from factories and dry cleaners  |
| 76. Toluene                                    | N             | ND             | ppm              | 1  | 1        | Discharge from petroleum factories  |
| 77. Total Organic Carbon (TOC)                 | N             | 0.2-0.3        | ppm              | n/a  | TT       | Naturally present in the environment  |
| 78. THM [Total trihalomethanes] (RAA)          | N             | 38-65          | ppb              | 0  | 80       | By-product of drinking water chlorination   |
| 79. Toxaphene                                  | N             | ND             | ppb              | 0  | 3        | Runoff/leaching from insecticide used on cotton and cattle  |
| 80. 2,4,5-TP (Silvex)                          | N             | ND             | ppb              | 50   | 50       | Residue of banned herbicide   |
| 81. 1,2,4-Trichlorobenzene                     | N             | ND             | ppb              | 70   | 70       | Discharge from textile-finishing factories  |
| 82. 1,1,1-Trichloroethane                      | N             | ND             | ppb              | 200  | 200      | Discharge from metal degreasing sites and other factories   |
| 83. 1,1,2-Trichloroethane                      | N             | ND             | ppb              | 3  | 5        | Discharge from industrial chemical factories  |
| 84. Trichloroethylene                          | N             | ND             | ppb              | 0  | 5        | Discharge from metal degreasing sites and other factories   |
| 85. Vinyl Chloride                             | N             | ND             | ppb              | 0  | 2        | Leaching from PVC piping, discharge from plastics factories   |
| 86. Xylenes                                    | N             | ND             | ppm              | 10   | 10       | Discharge from petroleum factories, discharge from chemical factories   |