# 2012 Report on Water Quality for the Eminence Water Works PWS#KY0520122

# THIS REPORT CONTAINS INFORMATION ABOUT YOUR DRINKING WATER

#### Why This Report?

This report discusses the quality of the water delivered to your tap by the Eminence Water Works. We strive to produce the best quality of water possible. This means we want you to always have water that: has a clean taste, is clear and crisp in appearance, never has an unpleasant smell and is safe and healthful to drink.

#### Where Does Your Water Come From?

We get our water from the Henry County Water District #2. They obtain their water from six wells along the Ohio River in Trimble County near the end of Morton Ridge Road. Although the wells are along the Ohio River, the water has been shown to be groundwater originating from areas inland from the river. An analysis of the susceptibility of this water source to contamination has been completed and it has been determined that the susceptibility is medium. There are a total of 5 potential sources of contamination within the protection area of these wells with the following susceptibility rankings: 2 are high, 3 are medium and none are low. Two of these sources of contamination, above ground storage tanks and agricultural activities are ranked as high susceptibility. Three sources of contamination, septic tanks and a county road are ranked as medium susceptibility. The complete susceptibility analysis report can be viewed at the KIPDA Area Development District office in Louisville or the Kentucky Division of Water office in Frankfort.

#### What Does the Water Treatment Plant Do to Your Water?

After pumping the water from the wells, it is treated with processes that remove any objectionable tastes or odors and then disinfected with chlorine before it is pumped to our customers. These processes primarily achieve filtration and disinfection of the water. This helps to remove any harmful chemicals, bacteria and other microorganisms that might be in the water.

#### If You Have Questions or Want to Get Involved

Questions about this report or operation of the water plant can be directed to Mr. William Smith at 845-4159. The Eminence city council is the governing body for the Water Works and meets at the Eminence City Hall at 6:15 pm on the second Monday of every month.

#### **Understanding This Report**

In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

<u>Maximum Contaminant Level Goal (MCLG)</u>: It 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.

<u>Maximum Contaminant Level (MCL)</u>: This 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.

<u>Maximum Residual Disinfectant Level (MRDL)</u>: Is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

<u>Maximum Residual Disinfectant Level Goal (MRDLG)</u>: Is the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

<u>Action Level (AL)</u> An action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

NTU means Nephelometric Turbidity Units and is a measure of turbidity (cloudiness).

ppm means parts per million or milligrams per liter and is a measure of the concentration of a contaminant.

<u>ppb</u> (or ug/L) means parts per billion or micrograms per liter and is a measure of the concentration of a contaminant. Treatment Technique (TT) is a required process intended to reduce the level of a contaminant in drinking water

ppm means parts per million or milligrams per liter and is a measure of the concentration of a contaminant.

<u>ppb</u> means parts per billion or micrograms per liter and is a measure of the concentration of a contaminant. <u>pCi/L</u> means picocuries per liter and is a measure of radioactivity <u>N/A</u> means not applicable for this item

Most of the results in the table are from monitoring during the 2012 calendar year. However, some contaminants are not required to be monitored on an annual basis and so the results may be from prior years.

#### **Special Information on 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. Eminence 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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.

# Water Quality Data

| Contaminant<br>(units)                                     | MCLG   | MCL        | Level<br>Found  | Range of<br>Detections                  | Violation | Date(s) of<br>Sample(s)                   | Typical Source of<br>Contaminants  |
|--|--|------------|---|---|-----------|---|--|
| Volatile Organic   | Compoun  | ds (VOC's  |   |   |           |   |  |
| Trihalomethanes<br>(ppb)                                   | N/A  | 80         | 42<br>(system<br>average)   | 37-50 (range<br>of individual<br>sites) | NO        | Quarterly<br>in 2012                      | By-product of drinking water chlorination (disinfection).  |
| Haloacetic<br>Acids (ppb)                                  | N/A  | 60         | 12<br>(system<br>average)   | 9-11 (range<br>of individual<br>sites)  | NO        | Quarterly<br>in 2012                      | By-product of drinking water chlorination (disinfection).  |
| Inorganics   |  |            | 0.041   |   | NO        | 1/2011                                    |  |
| Barium (ppm)   | 2  | 2          | 0.041   | N/A                                     | NO        | 1/2011                                    | Drilling wastes; Metal<br>refineries; Erosion of natural<br>deposits   |
| Copper (ppm)   | 1.3  | AL=1.3     | 0.082<br>(90 <sup>th</sup><br>percentile<br>value)  | No<br>samples<br>exceeded<br>AL         | NO        | 2011                                      | Corrosion of household<br>plumbing systems; Erosion<br>of natural deposits   |
| Fluoride (ppm)   | 4  | 4          | 0.89  | 0.89-0.89                               | NO        | 1/2012                                    | Erosion of natural deposits;<br>Water additive which<br>promotes strong teeth;<br>Discharge from fertilizer and<br>aluminum factories. |
| Lead (ppb)   | 0  | AL=15      | 5 (90 <sup>th</sup><br>percen-<br>tile value)   | No<br>samples<br>exceeded<br>AL         | NO        | 2011                                      | Corrosion of household<br>plumbing systems; Erosion<br>of natural deposits.  |
| Nitrate (ppm)  | 10   | 10         | 0.500   | N/A                                     | NO        | 2/2012                                    | Runoff from fertilizer use;<br>Leaching from septic tanks,<br>sewage.  |
| Microbiological a  | and Relate   | d Contami  | inants  | _                                       | -         |   |  |
| Total Coliform<br>Bacteria (# or %<br>positive<br>samples) | 0  | 1          | 0<br>(All<br>results<br>showed<br>absence)  | N/A                                     | NO        | Several<br>times each<br>month in<br>2012 | Runoff from fertilizer use;<br>Leaching from septic tanks,<br>sewage.  |
| Radioactive Cont   |  |            |   | 1                                       | I         | I   |  |
| Uranium (ug/L)<br>Combined<br>Radium (pCi/L)               | 0 0  | 30<br>5    | 0.04 2.5  | N/A<br>N/A                              | NO<br>NO  | 4/2009<br>4/2009                          | Erosion of natural deposits.<br>Erosion of natural deposits.   |
| Volatile Organic   | Contamin   | ants       |   |   |           |   | 1  |
| Chlorobenzene<br>(ppb)                                     | 100  | 100        | 0.6   | 0-0.6                                   | NO        | 2011                                      | Discharge from chemical and<br>agricultural chemical<br>factories  |
| Volatile Disinfect   | ant Comp   | ounds      |   |   |           |   |  |
| Chlorine (ppm)   | MRDL<br>G=4  | MRDL<br>=4 | 0.77<br>(annual<br>average)   | 0.4-1.01                                | NO        | Several<br>times each<br>month in<br>2012 | Disinfectant used to control microbes.   |
| Particulate Conta  | aminants   |            |   |   |           |   |  |
| Turbidity (NTU)<br>See footnote 1<br>below.                | 95% of all<br>monthly samples<br>must be <0.3 NTU<br>(TT). No one<br>sample may ever<br>exceed 1 NTU |            | Highest individual<br>measurement was<br>0.25. All samples<br>taken in 2012 were<br><0.3. |   | NO        | Continu-<br>ously in<br>2012              | Soil and urban stormwater runoff.  |

1 - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

#### Violations

Eminence received one violation for the year 2012. This violation was for the failure to report a positive total coliform sample for March 2011 in the CCR for that year. We have taken measures to insure that this reporting violation does not happen again.

### Why Are There Contaminants in My Water?

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 in source water before treatment include:

<u>Microbial contaminants</u>, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

<u>Inorganic contaminants</u>, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

<u>Pesticides and herbicides</u>, that may come from a variety of sources such as agriculture, stormwater runoff and residential uses.

<u>Organic chemical contaminants</u>, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants that can be naturally occurring or the result of oil and gas production or mining.

In order to ensure that your water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protections 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 at 1-800-426-4791.

### **Do I Need to Take Any Special Precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune 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 at (800)-426-4791.

Este informe contiene informacion muy importante sobre su aqua beber. Traduzcalo o hable con alguien que lo intienda bien.

Please note that this report will not be mailed to you unless requested. If you or anyone you know would like a copy mailed to you contact us at the water office at 502-845-4268 or write to us at PO Box 163, Eminence, Kentucky 40019.