

BELL BUCKLE WATER DEPARTMENT

2015 WATER QUALITY DATA

QUALITY ASSURANCE

In order to ensure that tap water is safe, the U.S. Environmental Protection Agency prescribes regulations that require utilities to monitor regularly for numerous substances in the water it produces. An independent laboratory certified by the EPA and the State of Tennessee performs this testing. All testing is conducted in compliance with current regulations. **The water supplied to Bell Buckle through Wartrace by the TUB from DRUC has never exceeded the limits for any regulated compound or substance as established by the State of Tennessee or U. S. EPA.**

TEST RESULTS – NONE DETECTED: Analysis is routinely performed for the following list of substances. **NONE** were detected in the water.

| PRIMARY ORGANICS | VOLATILE ORGANICS | VOLATILE ORGANICS | INORGANICS | SYNTHETIC ORGANICS | SYNTHETIC ORGANICS |
|---------------------|-------------------------|--------------------------|--------------------|---------------------------|--------------------|
| Alachlor | Bromobenzene | Dichloropropane | Arsenic | Carbofuran | Metolachlor |
| Aldicarb | Bromochloromethane | Dichloropropene | Antimony | Chlordane | Metribuzin |
| Benzene | Bromodichloromethane | Ethylbenzene | Beryllium | Dalapon | Oxamyl |
| CarbonTetrachloride | Bromomethane | Fluorotrichloromethane | Cadmium | Dicamba | PCB 1016 |
| Dichloroethane | Butylbenzene | Hexachloro-1,3-butadiene | Chromium | Dieldrin | PCB 1221 |
| Dichloroethylene | Chlorobenzene | Isopropylbenzene | Cyanide | Dinoseb | PCB 1232 |
| Endrin | Chlorodibromomethane | p-Isopropyltoluene | Mercury | Di(2-ethylhexyl)adipate | PCB 1242 |
| Lindane | Chloroethane | Naphthalene | Nickel | Di(2-ethylhexyl)phthalate | PCB 1248 |
| Methoxychlor | Chloromethane | n-Propylbenzene | Selenium | 2,3,7,8-TCDD (Dioxin) | PCB 1254 |
| Paradichlorobenzene | o-Chlorotoluene | Styrene | Thallium | Endothall | PCB 1260 |
| Toxaphene | p-Chlorotoluene | Tetrachloroethane | SYNTHETIC ORGANICS | Ethylene dibromide | Pentachlorophenol |
| Trichloroethane | Dibromomethane | Tetrachloroethylene | | Aldicarb | Glyphosate |
| Trichloroethylene | m-Dichlorobenzene | Toluene | Aldicarb Sulfone | Heptachlor | Propachlor |
| VinylChloride | o-Dichlorobenzene | Trichlorobenzene | Aldicarb Sulfoxide | Heptachlorepoxyde | Simazine |
| 2,4-D | Dichlorodifluoromethane | Trichloroethane | Aldrin | Hexachlorobenzene | RADIONUCLIDES |
| 2,4,5-TP (Silvex) | Dichloroethane | Trichloropropane | Butachlor | Hexachlorocyclopentadiene | |
| ASBESTOS | Dichloroethylene | Trimethylbenzene | Benzo(a)pyrene | 3-Hydroxycarbofuran | Radium 226 |
| Asbestos Fibers | Dichloromethane | Xylene | Carbaryl | Methomyl | |

TEST RESULTS – REQUIRED REPORTING OR DETECTED COMPOUNDS

The following water quality analysis and testing information is required reporting or are substances that were detected in the drinking water. All of the substances that were detected are present at levels well below the U. S. EPA limits and do not pose a health risk to the general public.

| Substance (units) | EPA Limit (MCL) | BBWD Maximum | BBWD Range | EPA Goal (MCLG) | Possible Source of the Contaminant |
|---|-----------------|----------------|--------------|-----------------|--|
| Microbial Contaminants | | | | | |
| Total Coliform (# Positive) | < 2 | 1 | 0 - 1 | 0 | Very small organisms such as bacteria |
| Fecal Coliform & E. Coli (# Positive) | 0 | 0 | 0 | 0 | Naturally present in the environment |
| Total Organic Carbon (ppm)* | TT* | 1.8 | 1.4 - 1.8 | N/A | Human and animal fecal waste |
| Turbidity (NTU)* | TT* | 0.07 | 0.01 - 0.07 | N/A | Naturally present in the environment |
| Inorganic Compounds | | | | | |
| Chlorine (ppm) | MRDL = 4 | 3.80 | 0.20 - 3.80 | MRDLG = 4 | Turbidity does not present any risk to your health and is measured to assess the effectiveness of the filtration system. |
| Chlorine Dioxide (ppb) | 800 | 140 | 0 - 140 | 800 | Substances of mineral origin |
| Chlorite (ppm) | 1 | 0.12 | 0.00 - 0.12 | 0.80 | Water additive used to control microbes |
| Fluoride (ppm) | 4 | 0.64 | 0.55 - 0.64 | 4 | Water additive used to control microbes |
| Nitrate (ppm) | 10 | 0.8 | 0.8 | 10 | Byproduct of drinking water chlorination |
| Sodium (ppm) | N/A | 3.3 | 3.3 | N/A | Added to prevent tooth decay, natural erosion |
| Copper (ppm) | AL = 1.3 | 0.20 | 0.00 - 0.02 | 1.3 | Agricultural runoff, natural erosion, sewage discharge |
| Lead (ppb) | AL = 15 | 0 | 0 | 0 | Natural erosion, component of water additives |
| Organic Compounds | | | | | |
| Haloacetic Acids Total (ppb) | 60 | 50 | 33 - 65 | 0 | Corrosion of household plumbing, - 2014 Data |
| Trihalomethanes Total (ppb) | 80 | 52 | 29 - 63 | 0 | Corrosion of household plumbing, - 2014 Data |
| Unregulated Contaminant Monitoring | | | | | |
| | | Average | Range | | Testing Required by EPA for Research Purposes |
| Chlorate (ppm) | | 48 | 26 - 75 | | Natural or synthetic carbon based compounds |
| Chromium 6+(ppm) | | 0.078 | 0 - 0.110 | | Byproduct of drinking water disinfection |
| Strontium (ppm) | | 37 | 32 - 44 | | Byproduct of drinking water disinfection |
| Vanadium (ppm) | | 0.20 | 0 - 0.36 | | |

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791.

DEFINITIONS: **MCL:** Maximum Contaminant Level, or 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. **MCLG:** Maximum Contaminant Level Goal, or 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. **MRDL:** Maximum Residual Disinfectant Level, or the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants. **MRDLG:** Maximum Residual Disinfectant Level Goal, or 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 the disinfectants to control microbial contaminants. **AL:** Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow. **TT:** Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water. **BDL:** Below the Detection Limit. **ppb:** Parts per billion or micrograms per liter (explained in terms of money as one penny in \$10,000,000.00). **ppm:** parts per million or milligrams per liter (explained in terms of money as one penny in \$10,000.00). **pCi/L:** picocuries per liter. **NTU:** Nephelometric Turbidity Unit; Turbidity is a measure of the clarity of the water. Turbidity in excess of 5 NTU becomes just noticeable to the average person. * The Treatment Technique requirements for both Turbidity and Total Organic Carbon were met throughout the year.

USEPA NOTICE 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. TUB 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, test methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead. **THERE IS NO LEAD IN THE WATER PRODUCED BY THE DRUC WATER TREATMENT PLANT.**

SOURCE WATER MONITORING TEST RESULTS: The DRUC water source, Normandy Reservoir, is very clean and the DRUC encounters no difficulty in treating the water to EPA and State of Tennessee standards. The DRUC routinely monitors the reservoir water for various contaminants and any indication of potential pollution. Prevention of pollution of our water source is one of our highest priorities. Below is a summary of recent source water testing in cooperation with other agencies including the USEPA, State of Tennessee and Tennessee Valley Authority. **NONE** of these contaminants have ever been found in the water distributed to customers.

CRYPTOSPORIDIUM OOCYSTS: During 2015, the DRUC initiated testing on **reservoir water** for this common organism found in nature, mostly as a result of the presence of wildlife and livestock animals. These monthly sampling events did **not** detect any oocysts. Testing will continue through part of 2016. The test results are good and indicate very little contamination of the reservoir from livestock or wildlife.

NOTE: Federal regulations now require all surface water systems serving more than 10,000 people to sample for Cryptosporidium. The DRUC previously completed this required testing in 2004 – 2006. Cryptosporidium is a microbial parasite which is found in surface waters throughout the United States. **No cryptosporidium oocysts were ever detected in any drinking water samples.** Cryptosporidium is effectively removed by filtration and the DRUC system currently provides treatment which is designed to remove cryptosporidium. The USEPA has determined that the presence of cryptosporidium at the concentration level reported in our source water is insignificant, based on the level of treatment we currently provide. Symptoms of cryptosporidium infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immune-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (800-426-4791).