

# 2025 Annual Water Quality Report

(Testing Performed January through December 2025)

Colbert County Rural Water System AL0000314

2750 Hwy 20 • Tuscumbia, AL 35674

Phone 256-386-8504 Hours: 6:00 am -2:30 pm, Monday- Friday

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We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to providing our customers with the safest and highest quality drinking water possible. This Water Quality Report is required by the Safe Drinking Water Act and tells you where your water comes from, what tests by independent laboratories show about it and other information you should know about your drinking water.

Our surface water treatment plant is located at 16531 US Hwy 72, where we source water from the Tennessee River. The treatment process utilizes coagulation, sedimentation, flocculation, disinfection and filtration.

The Colbert County Rural Water System is governed by the

Colbert County Commission. Commission members are as follows:

#### County Commissioners

Tommy Barnes – District 1  
W. Tyrus Mansell – District 2  
Jimmy Gardiner – District 3  
Tori Bailey – District 4  
Darol Bendall – District 5  
David C. Isom – District 6  
Jeremy Robison – County Engineer

If you have any questions about this report or concerning your water utility, please contact Jeremy Robison, County Engineer, 256-386-8504. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Tuesday of each month at 5:00 p.m. at the Colbert County Courthouse.

On March 14, 2023, the EPA announced the proposed National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable levels for six PFAS in drinking water. On April 10, 2024, the EPA finalized its proposed NPDWR, and announced its expectation that "over many years the final rule will prevent PFAS exposure in drinking water for approximately 100 million people, prevent thousands of deaths, and reduce tens of thousands of serious PFAS-attributable illnesses."

The EPA's new regulation provides a window of up to five years for public water systems to reach full compliance. Colbert County Rural Water has been monitoring PFAS, notifying the public of the levels of these PFAS, and undertaking efforts to evaluate how best to reduce the levels of these PFAS in drinking water. Due to the unique chemical properties of PFAS, conventional water treatment plants are incapable of fully removing PFAS from drinking water.

As a result, CCRW is evaluating state-of-the-art water filtration systems to reduce PFAS to non-detectable levels. CCRW is currently working with our engineers to select the best method of removing PFAS from our water supply.

CCRW does not believe that the past, present and future capital costs and increased operational expenses associated with removing PFAS from our water supply should be the responsibility of our ratepayers. For that reason, we engaged and retained outside legal counsel with extensive experience in PFAS litigation to evaluate and litigate claims against those responsible for the PFAS chemicals in our water supply. CCRW filed suit in the Circuit Court of Colbert County, Alabama in 2023 and while we cannot comment on pending litigation, our lawsuit against PFAS chemical manufacturers and others responsible for the PFAS contamination is moving forward in the Circuit Court of Colbert County, Alabama. It remains our goal to hold those that contaminated our water supply with PFAS responsible for all past, present, and future costs associated with removing their PFAS contamination from our drinking water.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

**Source Water Assessment:** We have developed a source water protection plan that can be reviewed in our office. This plan provides additional information such as potential sources of contamination. No sites evaluated pose a significant risk to our customers. It includes a susceptibility analysis, which classified potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. It has been determined by the assessment that the source water susceptibility ranking has a low-risk potential. The assessment has been performed, public notification has been completed, and the plan was approved by ADEM. Anyone wishing to review the SWAP can review it at our office (appointment required). Please help us make this effort worthwhile by protecting our source of water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints, and waste oil.

#### UCMR5

The Safe Drinking Water Act (SDWA) requires that once every five years the EPA issues a list of unregulated contaminants to be monitored by public water systems (PWSs).

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by the EPA and consensus organizations. This action provides the agency and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water. Below is a list of the contaminants that are being tested for during the UCMR5 along with their results.

| Colbert County Rural Water<br>Unregulated Contaminant Rule 5 (UCMR5) Contaminants |      |      |                |             |      |      |                |
|---|------|------|----------------|-------------|------|------|----------------|
| Contaminants  | Unit | Msmt | Level Detected | Contaminant | Unit | Msmt | Level Detected |
| Lithium   | ppt  | ND   | ND             | PFHxA       | ppt  | 4.3  |                |
| 11C-PF3OUdS   | ppt  | ND   | ND             | PFHxS       | ppt  | 3.3  |                |
| 4:2 FTS   | ppt  | ND   | ND             | PFMBA       | ppt  | ND   |                |
| 6:2 FTS   | ppt  | ND   | ND             | PFMPA       | ppt  | ND   |                |
| 8:2 FTS   | ppt  | ND   | ND             | PFNA        | ppt  | ND   |                |
| 9Cl-PF3ONS  | ppt  | ND   | ND             | PFOA        | ppt  | 13.0 |                |
| ADONA   | ppt  | ND   | ND             | PFOS        | ppt  | 23   |                |
| HFPO-DA   | ppt  | ND   | ND             | PFPeA       | ppt  | 3.0  |                |
| NFDHA   | ppt  | ND   | ND             | PFPeS       | ppt  | ND   |                |
| PFBA  | ppt  | ND   | ND             | PFUnA       | ppt  | ND   |                |
| PFBS  | ppt  | 4.1  | ND             | NEFOSAA     | ppt  | ND   |                |
| PFDA  | ppt  | ND   | ND             | NMeFOSAA    | ppt  | ND   |                |
| PFDaA   | ppt  | ND   | ND             | PFTA        | ppt  | ND   |                |
| PFEESA  | ppt  | ND   | ND             | PFTDA       | ppt  | ND   |                |
| PFHpA   | ppt  | 3.2  |                |             |      |      |                |
| PFHpS   | ppt  | ND   |                |             |      |      |                |

| Colbert County Rural Water<br>Detected Drinking Water Contaminants |               |                        |       |      |        |   |
|--|---------------|------------------------|-------|------|--------|---|
| Contaminants   | Violation Y/N | Level Detected         | Unit  | MCLG | MCL    | Likely Source of Contamination  |
| Gross Alpha  | NO            | ND                     | pCi/l | 0    | 15     | Erosion of natural deposits   |
| Gross Beta   | NO            | ND                     | pCi/l | 0    | 4      | Erosion of natural deposits   |
| Chlorine   | NO            | 0.6-2.5<br>1.55 avg    | ppm   | 4    | 4      | Water additive used to control microbes   |
| Turbidity  | NO            | .10                    | NTU   | n/a  | TT     | Soil runoff   |
| Barium   | NO            | 0.0171                 | ppm   | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Copper   | NO            | 0.00328                | ppm   | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching of preservatives   |
| Lead   | NO            | ND                     | ppm   | .15  | AL=1.5 | Corrosion of household plumbing systems; erosion of natural deposits                              |
| Fluoride   | NO            | 0.494                  | ppm   | 4    | 4      | Erosion of natural deposits, water additive which promotes strong teeth; Discharge from factories |
| Nitrate (as Nitrogen)  | NO            | 0.578                  | ppm   | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits       |
| TTHM - Total trihalomethanes                                       | NO            | 33.8 LRAA<br>12.6-53.1 | ppb   | 0    | 80     | By-product of drinking water chlorination   |
| HAA5 - Total haloacetic acids                                      | NO            | 29.6 LRAA<br>16.8-45.1 | ppb   | 0    | 60     | By-product of drinking water chlorination   |
| Unregulated Contaminants   |               |                        |       |      |        |   |
| Chloroform   | NO            | 0.0022                 | ppb   | n/a  | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Bromodichloromethane   | NO            | 0.0011                 | ppb   | 0    | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Perfluorooctanoic Acid   | NO            | 9.81                   | ppt   | n/a  | n/a    | Product that resists heat, oil, stains, grease, and water   |
| Secondary Contaminants   |               |                        |       |      |        |   |
| Aluminum   | NO            | 0.0276                 | ppm   | n/a  | 0.2    | Erosion; treatment with water additives   |
| Chloride   | NO            | 10.9                   | ppm   | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Hardness   | NO            | 90.2                   | ppm   | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Iron   | NO            | ND                     | ppm   | n/a  | 0.30   | Occurs naturally or from water treatment  |
| Manganese  | NO            | ND                     | ppm   | n/a  | 0.05   | Occurs naturally  |
| pH   | NO            | 7.3                    | S.U.  | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Specific Conductance   | NO            | 215.0                  | umhos | n/a  | <500   | Occurs naturally or from water treatment  |
| Sodium   | NO            | 6.16                   | ppm   | n/a  | n/a    | Naturally occurring in the environment  |
| Sulfate  | NO            | 23.3                   | ppm   | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Total Dissolved Solids   | NO            | 93                     | ppm   | n/a  | 500    | Naturally occurring; industrial discharge; agricultural runoff                                    |

| Muscle Shoals Utility Board<br>Detected Drinking Water Contaminants |                       |      |      |        |   |
|---|-----------------------|------|------|--------|---|
| Contaminants  | Level Detected        | Unit | MCLG | MCL    | Likely Source of Contamination  |
| Chlorine  | 1.9 avg,<br>1.69-2.40 | ppm  | 4    | 4      | Water additive used to control microbes   |
| Turbidity   | 0.59                  | NTU  | n/a  | TT     | Soil runoff   |
| Barium  | 0.0195                | ppm  | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Copper  | 0.133                 | ppm  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching of preservatives   |
| Fluoride  | 0.75                  | ppm  | 4    | 4      | Erosion of natural deposits, water additive which promotes strong teeth; Discharge from factories |
| Nitrate (as Nitrogen)   | 0.151                 | ppm  | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits       |
| TTHM - Total trihalomethanes  | 32.6 avg,<br>9.6-58.0 | ppb  | 0    | 80     | By-product of drinking water chlorination   |
| HAA5 - Total haloacetic acids                                       | 29.6 avg,<br>7.6-52.2 | ppb  | 0    | 60     | By-product of drinking water chlorination   |
| Unregulated Contaminants  |                       |      |      |        |   |
| Chloroform  | ND                    | ppb  | n/a  | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Bromodichloromethane  | ND                    | ppb  | 0    | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Perfluorooctanoic Acid  | 9.6                   | ppt  | n/a  | n/a    | Product that resists heat, oil, stains, grease, and water   |
| Secondary Contaminants  |                       |      |      |        |   |
| Aluminum  | 0.0193                | ppm  | n/a  | 0.2    | Erosion; treatment with water additives   |
| Chloride  | 12                    | ppm  | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Hardness  | 68                    | ppm  | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Iron  | ND                    | ppm  | n/a  | 0.30   | Occurs naturally or from water treatment  |
| Manganese   | ND                    | ppm  | n/a  | 0.05   | Occurs naturally  |
| pH  | 7.4                   | S.U. | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Sodium  | 8.9                   | ppm  | n/a  | n/a    | Naturally occurring in the environment  |
| Sulfate   | 16.4                  | ppm  | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Total Dissolved Solids  | 31                    | ppm  | n/a  | 500    | Naturally occurring; industrial discharge; agricultural runoff                                    |

| Iuka<br>Detected Drinking Water Contaminants |           |                   |      |      |        |   |
|--|-----------|-------------------|------|------|--------|---|
| Contaminants                                 | Violation | Level Detected    | Unit | MCLG | MCL    | Likely Source of Contamination  |
| Chlorine                                     | NO        | 0.70-1.70<br>1.50 | ppm  | 4.0  | 4.0    | Water additive used to control microbes   |
| Copper                                       | NO        | 0                 | ppm  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion; leaching from wood preservatives          |
| Lead   | NO        | 0                 | ppm  | 0    | AL=15  | Corrosion of household plumbing systems; erosion of natural deposits                        |
| Barium                                       | NO        | 0.0104            | ppm  | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits  |
| Chromium                                     | NO        | 0.0017            | ppm  | 0.1  | 0.1    | By-product of drinking water chlorination   |
| Nitrate                                      | NO        | 0.152             | ppm  | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Sodium                                       | NO        | 1.36              | ppb  | 20   | 20     | Naturally occurring in the environment  |

\* Figure shown is 90<sup>th</sup> percentile and # of sites above Action Level (AL)

#### UCMR Definitions:

**UCMR Minimum Reporting Level (MRL):** The minimum concentration that may be reported by a laboratory as a quantified value for a method analyte following analysis. The MRLs were established based on the capability of the analytical method, not based on a level established as "significant" or "harmful". **UCMR Reference Concentration:** The reference concentrations are based on publicly available health information found in the following EPA resources: 2018 Edition of the Drinking Water Standards and Health Advisories Tables [i.e., Health advisories (HA)] and the CCL 4 Contaminant Information Sheets [i.e., Health Reference Levels (HRLs)]. The primary sources of the health information used to derive the guideline values in the resources referenced above are peer-reviewed assessments from EPA or other governmental agencies. The reference concentrations are subject to change as new health assessments are completed. Reference Concentrations are not legally enforceable federal standards.

**Health Reference Levels (HRL):** The CCL process derives HRLs for screening purposes using available data and can be used in the Regulatory Determination process as risk-derived concentrations against which to evaluate the occurrence data to determine if contaminants may occur at levels of public health concern. HRLs are not final determinations about the level of a contaminant in drinking water that is necessary to protect any particular population and, in some cases, are derived prior to development of a complete exposure assessment using the best available data. HRLs are not legally enforceable federal standards.

**Health Advisories (HA):** Has provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to State agencies and other public health officials on health effects, analytical methodologies and treatment technologies to assist with risk management decisions.

**Level 1 Assessment:** "A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system."

**Level 2 Assessment:** "A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions."

**General Information:** All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, are set at very stringent levels.

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.

Turbidity has no health effects. 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.

#### 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 storm water 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, storm water run-off, 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 storm water 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 prescribes regulations which limit the number of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

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. People at some level 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).

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

**Lead in Drinking Water:** "If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. NEVER make baby formula with warm or hot tap water. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

Lead is rarely found in source water. If lead is present in tap water, it is primarily from corrosion of materials that were used in older plumbing, solder that connects pipes, or from pipes connecting a house to the main water pipe in the street. Lead is no longer used in manufacturing these products, but plumbing components containing lead may still remain in some older homes and buildings. When water sits for several hours in pipes containing these older materials, lead can leach into the water. Boiling will NOT reduce the amount of lead in your water. If you choose to have your tap water tested, be sure to use a properly certified laboratory. Information on lead in drinking water, testing methods, and steps you can take to minimize your family's exposure is available from the Safe Drinking Water hotline at 800-426-4791 and from <http://www.cdc.gov/nceh/lead/tips/water.htm>.

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(Testing Performed January through December 2025)

2750 Hwy 20 • Tuscumbia, AL 35674

Phone 256-386-8504 Hours: 6:00 am -2:30 pm, Monday- Friday

We use an independent laboratory to analyze samples from our distribution system for lead according to a monitoring schedule set by ADEM. Your water system is responsible for providing high quality drinking water but cannot control the variety of materials that were used in household plumbing. The EPA and the CDC make the following recommendations:

- Before using any tap water for drinking or cooking, flush your water system by running the kitchen tap (or any other tap you take drinking or cooking water from) on COLD for 1–2 minutes. Flushing can minimize the potential for lead exposure, especially if the water has been sitting undisturbed for several hours, as in overnight.
- In all situations, especially for making baby formula, drink or cook only with water that comes out of the cold tap. Warm or hot tap water is more likely to cause lead to leach from plumbing materials.
- Periodically remove the aerator on the tip of the faucet and wash out any debris such as metal particles.

**Lead Service Line Inventory:** Our Lead Service Line Inventory was completed and submitted by the deadline of October 16, 2024, and a copy of it is in our office as required by EPA. If any would like to review it or have any questions, please feel free to contact our office.

Upon completing the lead service line inventory, here at Colbert County we are pleased to report, that we had **0 – Lead Service Lines, 0 –Galvanize Required Replacement Service Lines, 0 – Unknown, and 5552 Non- Lead Service Lines.**

Our source water is also tested for pathogens, such as Cryptosporidium and Giardia. These pathogens can enter the water from animal or human waste. For people who may be immunocompromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at [www.epa.gov/safewater/crypto.html](http://www.epa.gov/safewater/crypto.html) or from the Safe Drinking Water Hotline at 800-426-4791. All test results were well within state and federal standards. *Cryptosporidium* and *Giardia* have not been detected in our finished drinking water.

**Cryptosporidium** is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised individuals, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. We currently monitor for Cryptosporidium and have had none detected.

**Radon** is a naturally occurring gas present in some groundwater. Inhaled radon has been linked to lung cancer and may pose a health risk when inhaled after the release from water into the air. This inhalation could occur during showering, bathing, washing dishes, or washing clothes. The radon gas release from drinking water is a relatively small part of the total radon found in air. One major source of radon gas is from the soil, where the gas can seep through the foundations of homes. It is not clear whether ingested (i.e. taken through the mouth) radon contributes to cancer or other adverse health conditions. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on home testing contact (insert name of local health department). Note 300 Pci/l proposed MCL.

| Hawk Pride Mountain<br>Detected Drinking Water Contaminants |                      |      |      |        |   |
|---|----------------------|------|------|--------|---|
| Contaminants  | Level Detected       | Unit | MCLG | MCL    | Likely Source of Contamination  |
| Chlorine  | 2.0 avg.<br>1.8–2.2  | ppm  | 4    | 4      | Water additive used to control microbes   |
| Turbidity   | 0.04                 | NTU  | n/a  | TT     | Soil runoff   |
| Barium  | 0.03                 | ppm  | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits      |
| Copper  | 0.8                  | ppm  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching of preservatives |
| Nitrate (as Nitrogen)                                       | 1.36                 | ppm  | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits     |
| TTHM -Total trihalomethanes                                 | 7.0 avg.<br>4.0–10.0 | ppb  | 0    | 80     | By-product of drinking water chlorination   |
| HAAS- Total haloacetic acids                                | 3.0 avg.<br>ND–6.0   | ppb  | 0    | 60     | By-product of drinking water chlorination   |
| Unregulated Contaminants                                    |                      |      |      |        |   |
| Chloroform  | 3.5                  | ppb  | n/a  | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                  |
| Bromodichloromethane  | 2.0                  | ppb  | 0    | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                  |
| Perfluorooctanoic Acid                                      | 0.0055               | ppt  | n/a  | n/a    | Product that resists heat, oil, stains, grease, and water                                       |
| Secondary Contaminants                                      |                      |      |      |        |   |
| Alkalinity, Total   | 205.0                | ppm  | n/a  | n/a    | Erosion of natural deposits   |
| Calcium   | 82.7                 | ppm  |      |        | Erosion of natural deposits   |
| Chloride  | 6.4                  | ppm  | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                  |
| Hardness  | 218.0                | ppm  | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Magnesium   | 3.14                 | ppm  | n/a  | n/a    | Occurs naturally  |
| pH  | 7.1                  | S.U. | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Sodium  | 4.24                 | ppm  | n/a  | n/a    | Naturally occurring in the environment  |
| Sulfate   | 7.4                  | ppm  | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                  |
| Total Dissolved Solids                                      | 87.0                 | ppm  | n/a  | 500    | Naturally occurring; industrial discharge; agricultural runoff                                  |

**Definitions**

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

**Coliform Absent** (ca)- Laboratory analysis indicates that the contaminant is not present.

**Cryptosporidium-** a microscopic parasite that can cause disease, mainly diarrhea, if swallowed.

**Disinfection byproducts** (DBPs)- are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water.

**Distribution System Evaluation** (DSE)-a 4-quarter study to identify distribution system locations with high concentrations of DBPs.

**Maximum Contaminant Level** (MCL) is the highest level of a contaminant that is allowed in drinking water.

**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.

**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.

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

**Nephelometric Turbidity Unit** (NTU)-a measure of the clarity of water.

| Town of Cherokee<br>Detected Drinking Water Contaminants |                      |      |      |        |   |
|--|----------------------|------|------|--------|---|
| Contaminants   | Level Detected       | Unit | MCLG | MCL    | Likely Source of Contamination  |
| Turbidity  | 0.11                 | NTU  | n/a  | TT     | Soil runoff   |
| Barium   | 0.23                 | ppm  | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Copper   | 0.0011               | ppm  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching of preservatives   |
| Fluoride   | 0.055                | ppm  | 4    | 4      | Erosion of natural deposits, water additive which promotes strong teeth; Discharge from factories |
| Nitrate (as Nitrogen)                                    | 2.1                  | ppm  | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits       |
| TTHM -Total trihalomethanes                              | 87.0<br>20.0-87.0    | ppb  | 0    | 80     | By-product of drinking water chlorination   |
| HAAS- Total haloacetic acids                             | 66.0<br>19.0-66.0    | ppb  | 0    | 60     | By-product of drinking water chlorination   |
| Unregulated Contaminants                                 |                      |      |      |        |   |
| Chloroform   | 71.0                 | ppb  | n/a  | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Bromodichloromethane                                     | 13.0                 | ppb  | 0    | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Perfluorooctanoic Acid                                   | 0.047<br>0.025-0.047 | Ugl  | n/a  | n/a    | Product that resists heat, oil, stains, grease, and water   |

**Monitoring Results**

As you can see by the tables on these 2 pages, our system had no violations. We have learned through our monitoring and testing that some constituents have been detected. We are pleased to report that our drinking water meets federal and state requirements. The tables below show only those contaminants that were detected.

| Detected Tuscumbia Utilities<br>Detected Drinking Water Contaminants |               |                |      |      |        |   |
|--|---------------|----------------|------|------|--------|---|
| Contaminants   | Violation Y/N | Level Detected | Unit | MCLG | MCL    | Likely Source of Contamination  |
| Turbidity  | NO            | .04            | NTU  | n/a  | TT     | Soil runoff   |
| Arsenic  | NO            | .718           | ppb  | 0    | 50     | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Barium   | NO            | .0293          | ppm  | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Chromium   | NO            | 1.47           | ppb  | 0    | 100    | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Copper   | NO            | .129           | ppm  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching of preservatives   |
| Fluoride   | NO            | 0.84           | ppm  | 4    | 4      | Erosion of natural deposits, water additive which promotes strong teeth; Discharge from factories |
| Lead   | NO            | 1.87           | ppm  | 0    | 0.015  | Corrosion of household plumbing systems; erosion of natural deposits;                             |
| Nitrate (as Nitrogen)  | NO            | .623           | ppm  | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits       |
| Selenium   | NO            | 1.54           | ppb  | 0    | 50     | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| TTHM -Total trihalomethanes  | NO            | 25.3           | ppb  | 0    | 80     | By-product of drinking water chlorination   |
| HAAS- Total haloacetic acids   | NO            | 23.4           | ppb  | 0    | 60     | By-product of drinking water chlorination   |

\* Figure shown is 90<sup>th</sup> percentile and # of sites above Action Level (AL) = 0

| West Morgan East Lawrence<br>Detected Drinking Water Contaminants |               |                       |      |      |        |   |
|---|---------------|-----------------------|------|------|--------|---|
| Contaminants  | Violation Y/N | Level Detected        | Unit | MCLG | MCL    | Likely Source of Contamination  |
| Chlorine  | NO            | 1.89 avg<br>1.65-2.13 | ppm  | 4    | 4      | Water additive used to control microbes   |
| Turbidity   | NO            | .144                  | NTU  | n/a  | TT     | Soil runoff   |
| Barium  | NO            | .021                  | ppm  | 2    | 2      | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits        |
| Copper  | NO            | .024                  | ppm  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching of preservatives   |
| Fluoride  | NO            | .92                   | ppm  | 4    | 4      | Erosion of natural deposits, water additive which promotes strong teeth; Discharge from factories |
| Nitrate (as Nitrogen)   | NO            | 0.44                  | ppm  | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits       |
| TTHM -Total trihalomethanes                                       | NO            | 34.5                  | ppb  | 0    | 80     | By-product of drinking water chlorination   |
| HAAS- Total haloacetic acids                                      | NO            | 28.7                  | ppb  | 0    | 60     | By-product of drinking water chlorination   |
| Unregulated Contaminants  |               |                       |      |      |        |   |
| Chloroform  | NO            | 2.4                   | ppb  | n/a  | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Bromodichloromethane  | NO            | 2.1                   | ppb  | n/a  | n/a    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Perfluorooctanoic Acid  | NO            | 2.94                  | ppt  | n/a  | n/a    | Product that resists heat, oil, stains, grease, and water   |
| Secondary Contaminants  |               |                       |      |      |        |   |
| Aluminum  | NO            | .018                  | ppm  | n/a  | 0.2    | Erosion; treatment with water additives   |
| Chloride  | NO            | 14.1                  | ppm  | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Hardness  | NO            | 79.5                  | ppm  | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Iron  | NO            | .07                   | ppm  | n/a  | 0.3    | Occurs naturally or from water treatment  |
| Manganese   | NO            | .018                  | ppm  | n/a  | 0.5    | Occurs naturally  |
| pH  | NO            | 7.12                  | S.U. | n/a  | n/a    | Naturally occurring; treatment with water additives   |
| Sodium  | NO            | 5.8                   | ppm  | n/a  | n/a    | Naturally occurring in the environment  |
| Sulfate   | NO            | 10.2                  | ppm  | n/a  | 250    | Naturally occurring; industrial discharge; agricultural runoff                                    |
| Total Dissolved Solids  | NO            | 91                    | ppm  | n/a  | 500    | Naturally occurring; industrial discharge; agricultural runoff                                    |

**Non-Detect** (ND)- laboratory analysis indicates that the contaminant is not present above detection limits of lab equipment.

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

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

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

Below is a table of contaminants for which the Environmental Protection Agency and the Alabama Department of Environmental Management require testing where applicable. These contaminants were not detected in your drinking water unless they are also listed in the Detected Drinking Water Contaminants table elsewhere in this report

| STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS |                         |                         |   |     |              |
|--|-------------------------|-------------------------|---|-----|--------------|
| Contaminant  | MCL                     | Unit of Msmt            | Contaminant                             | MCL | Unit of Msmt |
| <b>Bacteriological Contaminants</b>                  |                         |                         |   |     |              |
| Total Coliform Bacteria                              | <5%                     | present/Absent          | cis-1,2-Dichloroethylene                | 70  | ppb          |
| Fecal Coliform and E.coli                            | 0                       | present/Absent          | trans-1,2-Dichloroethylene              | 100 | ppb          |
| Turbidity  | TT                      | NTU                     | Dichloromethane                         | 5   | ppb          |
| Cryptosporidium                                      | TT                      | Calc. organisms         | Di (2-ethylhexyl)phthalate              | 400 | ppb          |
| <b>Radiological Contaminants</b>                     |                         |                         |   |     |              |
| Radionuclides  |                         |                         | Di (2-ethylhexyl)phthalate              | 6   | ppb          |
| Radionuclides  | 4                       | mrem/yr                 | Dinoseb                                 | 7   | ppb          |
| Radionuclides  | 15                      | pCi/l                   | Dioxin (2,3,7,8-TCDD)                   | 30  | mm           |
| Radionuclides  | 5                       | pCi/l                   | Diquat                                  | 20  | ppb          |
| Radionuclides  | 30                      | pCi/l                   | Endrin                                  | 100 | ppb          |
| <b>Inorganic Chemicals</b>                           |                         |                         |   |     |              |
| Antimony   | 6                       | ppb                     | Endrin                                  | 2   | ppb          |
| Arsenic  | 10                      | ppb                     | Etochloroethrin                         | TT  | TT           |
| Asbestos   | 7                       | MFL                     | Ethylbenzene                            | 700 | ppb          |
| Barium   | 2                       | ppm                     | Ethylene dibromide                      | 50  | ppt          |
| Beryllium  | 4                       | ppb                     | Glyphosate                              | 700 | ppb          |
| Cadmium  | 5                       | ppb                     | Heptachlor                              | 400 | ppt          |
| Chromium   | 100                     | ppb                     | Heptachlor epoxide                      | 200 | ppt          |
| Copper   | AL=1.3                  | ppm                     | Hexachlorobenzene                       | 1   | ppb          |
| Cyanide  | 200                     | ppb                     | Hexachlorocyclopentadiene               | 50  | ppb          |
| Fluoride   | 4                       | ppm                     | Lindane                                 | 200 | ppt          |
| Lead   | AL=15                   | ppb                     | Methoxychlor                            | 40  | ppb          |
| Mercury  | 2                       | ppb                     | Oxamyl (Vydate)                         | 200 | ppb          |
| Nitrate  | 10                      | ppm                     | Pentachlorophenol                       | 1   | ppb          |
| Nitrite  | 1                       | ppm                     | Picloram                                | 500 | ppb          |
| Selenium   | .05                     | ppm                     | Simazine                                | 4   | ppb          |
| Thallium   | .002                    | ppm                     | Stivrene                                | 100 | ppb          |
| <b>Organic Contaminants</b>                          |                         |                         |   |     |              |
| 2,4-D  | 70                      | ppb                     | Tetrachloroethylene                     | 5   | ppb          |
| Acrylamide   | TT                      | TT                      | Toluene                                 | 1   | ppm          |
| Alachlor   | 2                       | ppb                     | Toxaphene                               | 3   | ppb          |
| Atrazine   | 3                       | ppb                     | 2,4,5-TP (Silvex)                       | 50  | ppb          |
| Benzene  | 5                       | ppb                     | 1,1,1-Trichloroethane                   | .07 | ppm          |
| Benzolalovene (PAHs)                                 | 200                     | ppt                     | 1,1,2-Trichloroethane                   | 5   | ppb          |
| Carbofuran   | 40                      | ppb                     | Trichloroethylene                       | 5   | ppb          |
| Carbon tetrachloride                                 | 5                       | ppb                     | Vinyl Chloride                          | 2   | ppb          |
| Chlordane  | 2                       | ppb                     | Xylenes                                 | 10  | ppm          |
| Chlorobenzene  | 100                     | ppb                     | Disinfectants & Disinfection byproducts |     |              |
| Dalapon  | 200                     | ppb                     | Chlorine                                | 4   | ppm          |
| Dibromochloropropane                                 | 200                     | ppt                     | Chlorine Dioxide                        | 800 | ppb          |
| 1,2-Dichlorobenzene                                  | 1000                    | ppb                     | Chloramines                             | 4   | ppm          |
| 1,4-Dichlorobenzene (para)                           | 75                      | ppb                     | Bromate                                 | 10  | ppb          |
| o-Dichlorobenzene                                    | 600                     | ppb                     | Chlorite                                | 1   | ppm          |
| 1,2-Dichloroethane                                   | 5                       | ppb                     | HAAS (Total haloacetic acids)           | 60  | ppb          |
| 1,1-Dichloroethylene                                 | 7                       | ppb                     | TTHM (Total trihalomethanes)            | 80  | ppb          |
| LIST OF SECONDARY CONTAMINANTS                       |                         |                         |   |     |              |
| Alkalinity, Total (as Ca, Co)                        | Copper                  | Manganese               | Specific Conductance                    |     |              |
| Aluminum   | Corrosivity             | Odor                    | Sulfate                                 |     |              |
| Calcium, as Ca                                       | Foaming agents (MBAS)   | Nickel                  | Total Dissolved Solids                  |     |              |
| Carbon Dioxide                                       | Hardness                | pH                      | Zinc                                    |     |              |
| Chloride   | Iron                    | Silver                  |   |     |              |
| Color  | Magnesium               | Sodium                  |   |     |              |
| LIST OF UNREGULATED CONTAMINANTS                     |                         |                         |   |     |              |
| Aldicarb   | Chloroethane            | Diethrin                | Proachlor                               |     |              |
| Aldicarb/Sulfone                                     | Chloroform              | Hexachlorobutadiene     | N-Propylbenzene                         |     |              |
| Aldicarb/Sulfoxide                                   | Chloromethane           | 3-Hydroxycarbofuran     | Proachlor                               |     |              |
| Aldrin   | o-Chlorotoluene         | isopropylbenzene        | 1,1,1,2-Tetrachloroethane               |     |              |
| Bromoacetic Acid                                     | p-Chlorotoluene         | p-isopropyltoluene      | 1,1,2,2-Tetrachloroethane               |     |              |
| Bromobenzene   | Dibromochloromethane    | m-Dichlorobenzene       | Tetrachloroethene                       |     |              |
| Bromochloromethane                                   | 1,2-Dibromoethane       | Methomyl                | Trichloroacetic Acid                    |     |              |
| Bromodichloromethane                                 | Dibromomethane          | Methylene chloride      | 1,2,3-Trichlorobenzene                  |     |              |
| Bromoform  | 1,1-Dichloroethane      | Methyl tert-butyl ether | Trichloroethylene                       |     |              |
| Bromobenzene   | 1,3-Dichloropropane     | Methylchlor             | Trichlorofluoromethane                  |     |              |
| Butachlor  | 2,2-Dichloropropane     | Methobuzin              | 1,2,3-Trichloropropane                  |     |              |
| n-Butylbenzene                                       | 1,1-Dichloropropene     | MTBE                    | 1,2,4-Trimethylbenzene                  |     |              |
| Sec-Butylbenzene                                     | 1,3-Dichloropropane     | Naphthalene             | 1,3,5-Trimethylbenzene                  |     |              |
| tert-Butylbenzene                                    | Dicamba                 | n-Heptanol              |   |     |              |
| Carbanil   | Dichlorodifluoromethane | Paraquat                |   |     |              |

**Running Annual Average** (LRAA)-yearly average of all the DPB results at each specific sampling site in the distribution system.

**Standard Units** (S.U.)-pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas.

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

**Variations & Exemptions** (V&E)-State or EPA permission not to meet an MCL or a treatment technique under certain conditions.