

Annual Drinking Water Quality Report

Stewartville Water Authority

January-December 2016

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (USEPA) and the Alabama Department of Environmental Management (ADEM) drinking water health standards. Your local water officials vigilantly safeguard its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standards. We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. 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 ensuring the quality of your water. The water we supply to our customers comes from one 700 GPM well which is located on Sorrell Road and pumps water from the Gantt Aquifer. We feed Aqua Gold into the system for Calcium sequestering and also Chlorine is added to the water as disinfectant and the required residual is maintained to protect your drinking water from any possible outside contaminants. We also have added a Reverse Osmosis Treatment plant to Well #1 which will help with the removal of the hardness caused by excessive Calcium in the water.

The Stewartville Water Authority routinely completes a water storage facility inspection plan, and utilizes a Bacteriological Monitoring Plan and a Cross Connection Policy is in place to insure good safe drinking water for our customers. We have completed a Source Water Assessment Plan, which is available at our office for review. This report provides information about potential sources of contamination and is set up to help protect our source.

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 Board meetings. They are held on the 2nd Thursday of the month at the Stewartville Water Authority office that is located at 65 Coosa County Road 150 and begin at 6:00 p.m.

The members of the Board of Directors are: Fred O. Ferguson (Chairman), Terry Veazey (Co-Chairman)
W.A. King, Jr., F. Gene Ham, C.B. Culver and James W. Abernathy

Important Drinking Water Definitions:

Action Level (AL) - The concentration of a contaminant that triggers treatment or other requirements that a water system shall follow.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below, which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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.

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

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 (µg/L) - 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 (ng/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 (pg/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.

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

Threshold Odor Number (T.O.N.) - The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.

Variations & Exemptions - ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Explanation of reasons for variance/exemptions

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.

The Stewartville Water Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. Unless otherwise noted, the data presented in the following tables show the results of our monitoring period of January 1st to December 31st, 2015.

The EPA or ADEM requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Table of Primary Drinking Water Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Chloramines (ppm)	4	ND
Total Coliform Bacteria	< 5%	ND	Chlorite (ppm)	1	ND
Turbidity (NTU)	TT	0.20	Endothall (ppb)	100	ND
Fecal Coliform & E. coli	0	ND	Endrin (ppb)	2	ND
Radiological			Epichlorohydrin (ppb)	TT	ND
Beta particle and photon (mrem/yr)	4	ND	Glyphosate (ppb)	700	ND
Gross Alpha particle (pCi/L)	15	2.4+/-0.9	Heptachlor (ppt)	400	ND
Combined radium 226 & 228 (pCi/L)	5	1.8+/-1.0	Heptachlor Epoxide (ppt)	200	ND
Tritium (pCi/L)	20,000	ND	Hexachlorobenzene (ppb)	1	ND
Strontium 90 (pCi/L)	8	ND	Hexachlorocyclopentadiene (ppb)	50	ND
Uranium (ppb)	30	ND	Lindane (ppt)	200	ND
Inorganic			Methoxychlor (ppb)	40	ND
Antimony (ppb)	6	ND	Oxamyl [Vydate] (ppb)	200	ND
Arsenic (ppb)	10	ND	Polychlorinated Biphenyls (PCBs)(ppt)	500	ND
Asbestos (MFL)	7	ND	Pentachlorophenol (ppb)	1	ND
Barium (ppm)	2	ND	Picloram (ppb)	500	ND
Beryllium (ppb)	4	ND	Simazine (ppb)	4	ND
Cadmium (ppb)	5	ND	Toxaphene (ppb)	3	ND
Chromium (ppb)	100	ND	Benzene (ppb)	5	ND
Copper (ppm)	AL=1.3	0.263	Carbon Tetrachloride (ppb)	5	ND
Cyanide (ppb)	200	ND	Monochlorobenzene (ppb)	100	ND
Fluoride (ppm)	4	ND	Dibromochloropropane (ppt)	200	ND
Lead (ppb)	AL=15	ND	0-Dichlorobenzene (ppb)	600	ND
Mercury (ppb)	2	ND	Para-dichlorobenzene (ppb)	75	ND
Nickel (ppb)	100	ND	1,2-Dichloroethane (ppb)	5	ND
Nitrate (as N)(ppm)	10	1	1,1-Dichloroethylene (ppb)	7	ND
Nitrite (as N)(ppm)	1	ND	Cis-1,2-Dichloroethylene (ppb)	70	ND
Total Nitrate/Nitrite (ppm)	10	1	Trans-1,2-Dichloroethylene (ppb)	100	ND
Selenium (ppb)	50	ND	Dichloromethane (ppb)	5	ND
Sulfate (ppm)	500	5.84	1,2-Dichloropropane (ppb)	5	ND
Thallium (ppb)	2	ND	Ethylbenzene (ppb)	700	ND
Organic Chemicals			Ethylene Dibromide (EDB)(ppt)	50	ND
2,4-D (ppb)	70	ND	Styrene (ppb)	100	ND
2,4,5-TP (Silvex) (ppb)	50	ND	Tetrachloroethylene (ppb)	5	ND
Acrylamide (ppm)	TT	ND	1,2,4-Trichlorobenzene (ppb)	70	ND
Alachlor (ppb)	2	ND	1,1,1-Trichloroethane (ppb)	200	ND
Atrazine (ppb)	3	ND	1,1,2-Trichloroethane (ppb)	5	ND
Benzo(a)pyrene[PHAs] (ppt)	200	ND	Trichloroethylene (TCE)(ppb)	5	ND
Carbofuran (ppb)	40	ND	Total trihalomethanes (TTHM)(ppb)	80	7.29
Chlordane (ppb)	2	ND	Toluene (ppm)	1	ND
Dalapon (ppb)	200	ND	Vinyl Chloride (ppb)	2	ND
Di-(2-ethylhexyl)adipate (ppb)	400	ND	Chlorine (ppm)	4	1.38
Di(2-ethylhexyl)phthalates (ppb)	6	ND	Chlorine dioxide (ppb)	800	ND
Dinoseb (ppb)	7	ND	Bromate (ppb)	10	ND
Diquat (ppb)	20	ND	Total Organic Carbon (TOC)	TT	ND
Dioxin[2,3,7,8-TCDD] (ppq)	30	ND	Xylenes (Total)(ppm)	10	ND
			Haloacetic Acids (HAA5)(ppb)	60	1.83

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.

Table of Secondary Drinking Water Contaminants			
CONTAMINANT	AMOUNT DETECTED	MCL	UNIT MEASUREMENT
Chloride	4.04	250	ppm
Sulfate	5.84	250	ppm
Total Dissolved Solids	112	500	ppm
Table of Special Drinking Water Contaminants			
CONTAMINANT	AMOUNT DETECTED	MCL	UNIT MEASUREMENT
Calcium	33.2	N/A	ppm
Carbon Dioxide	8.2	N/A	ppm
Magnesium	4.39	N/A	ppm
pH	7.20	N/A	S.U.
Sodium	3.52	N/A	ppm
Specific Conductance	231	N/A	umhos
Temperature	ND	N/A	°C
Alkalinity	96.9	N/A	ppm
Total Hardness (as CaCO3)	101	N/A	ppm
Langlier Saturation Index	-0.78	N/A	C

The table below lists all of the drinking water contaminants that we detected.

Table of Detected Drinking Water Contaminants								
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Bacteriological (Sampling Date 2016)								
Total Coliform Bacteria	0	< 5%	0	-	0	ND	Present or Absent	Naturally present in the environment
Turbidity	0	TT				0.20	NTU	Soil runoff
Radiological (Sampling Date 2014)								
Gross Alpha particle	0	15	0	-	ND	2.4+/-0.9	pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0	5	0	-	ND	1.8+/-1.0	pCi/L	Erosion of natural deposits
Inorganic Contaminants (Sampling Date 2015)								
Copper	1.3	AL=1.3	No. of Sites above action level 0			0.263	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	0	AL=15	No. of Sites above action level 0			ND	ppb	Corrosion of household plumbing systems, erosion of natural deposits
Inorganic Contaminants (Sampling Date 2016)								
Nitrate (as N)	10	10	ND	-	1	1	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Organic Contaminants (Sampling Date 2016)								
Total trihalomethanes (TTHM)	0	80	3.88	-	10.7	7.29	ppb	By-product of drinking water chlorination
Chlorine	MRDLG 4	MRDL 4	0.2	-	1.53	1.38	ppm	Water additive used to control microbes
Haloacetic Acids (HAA5)	0	60	1.74	-	1.92	1.83	ppb	By-product of drinking water chlorination
Secondary Contaminants (Sampling Date 2016)								
Chloride	N/A	250	ND	-	ND	4.04	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Sulfate	N/A	250	ND	-	ND	5.84	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	ND	-	ND	112	ppm	Erosion of natural deposits
Special Contaminants (Sampling Date 2016)								
Calcium	N/A	N/A	ND	-	ND	33.2	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	ND	-	ND	8.2	ppm	Erosion of natural deposits
Magnesium	N/A	N/A	ND	-	ND	4.39	ppm	Erosion of natural deposits
pH	N/A	N/A	ND	-	ND	7.20	SU	Naturally occurring in the environment or as a result of treatment with water additives

Sodium	N/A	N/A	ND	-	ND	3.52	ppm	Naturally occurring in the environment
Specific Conductance	N/A	<500	ND	-	ND	231	umhos	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	N/A	N/A	ND	-	ND	5.84	ppm	Naturally occurring in the environment
Temperature	N/A	N/A	ND	-	ND	ND	°C	Naturally occurring in the environment
Total Alkalinity	N/A	N/A	ND	-	ND	96.9	ppm	Erosion of natural deposits
Total Hardness (as CaCO3)	N/A	N/A	ND	-	ND	101	ppm	Naturally occurring in the environment or as a result of treatment with water additives
Unregulated Contaminants (Sampling Date 2016)								
Chloroform	N/A	N/A	ND	-	ND	ND	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination

General Information

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. The **Stewartville Water Authority** 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>.

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 activities.

As you can see by the tables, our system had no monitoring violations of allowable limits of contaminants in drinking water. We are 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. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

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 (Environmental Protection Agency)/CDC (Center of Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline. All Drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We 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.

For more information contact:

Mr. Donald Traywick, Manager
Stewartville Water Authority
65 Coosa County Road 150
Sylacauga, Alabama 35151
Telephone: 256-245-0214

7:00 a.m. – 12:00 noon and 12:30p.m. to 5:30 p.m. Monday – Thursday