



TRUSSVILLE
Gas and Water

**2021 Water
Quality Report**

2021 Annual Drinking Water Quality Report

What's the Quality of My Water?

We are pleased to present to you this year's Annual Water Quality Report which is designed to inform you about the quality water and services we deliver to you every day. The constant goal of the Water Division of Trussville Gas and Water is to provide customers with a safe, reliable supply of drinking water that can be used with confidence at the lowest possible cost while maintaining the highest quality. Our employees monitor your water supply 24 hours a day, seven days a week to ensure that the water delivered from our facilities meets these priorities. This report covers January 1 through December 31, 2020.

Our water sources are eight groundwater wells producing from Tuscumbia-Fort Payne chert and Bangor limestone aquifers that service approximately 12,500 customers. Our system has twelve tanks with a combined storage capacity of 13,852,600. The system also includes one clear well which holds 3,000,000 gallons and one raw water tank which holds 4,300,000 gallons. We treat your water by the use of chlorination, filtration, flocculation, fluoridation and corrosion control/pH adjustment.

Trussville Gas and Water became one of the first water systems in the state to develop a Wellhead Protection Program to ensure that the water supply is safe and protected. In addition to the Wellhead Protection Program, the Source Water Assessment Plan has been delineated and approved by ADEM. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate or nonsusceptible (low) to contaminating the water source. All of the potential contaminants cited in our study area were rated as either low, moderately or highly susceptible to contaminating the water supply. The assessment has been performed, public notification has been completed and the plan has been approved by ADEM. A copy of the report is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee. Please help us make this effort worthwhile by protecting our source 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.

If you have any questions about this report or concerning your water quality, please contact Alan Long at 205-655-3211 or 1800-755-3211. We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled meetings. They are generally held on the fourth Monday of each month in the Board Room at 127 Main Street in Trussville. Please confirm before attending. See this report and other information about our water system on our website at www.trussville.com.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

General Manager

Mike Strength

Board Members

Buddy Aydelette, Chairman

A. H. Wright, Vice Chairman

Teddy Gilmer, Director

Eddie Seal, Director

Ed Smith, Director

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Contaminants Monitored	Date Monitored
Inorganic Compounds	2019
Lead and Copper	2020
Microbiological Contaminants	Current
Nitrates	2020
Radioactive Contaminants	2017
Synthetic Organic Contaminants (including herbicides and pesticides)	2018
Volatile Organic Contaminants	2020
Disinfection By-products (TTHM and HAA5)	2020

TABLE OF PRIMARY DRINKING WATER CONTAMINANTS

CONTAMINANT	MCL	Amount Detected
Bacteriological		
Total Coliform Bacteria	< 5%	ND
Turbidity	TT	0.79
Radiological		
Beta/photon emitters (mrem/yr)	4	ND
Alpha emitters (pCi/L)	15	1.0
Combined radium (pCi/L)	5	ND

CONTAMINANT	MCL	Amount Detected
Organic Chemicals		
2,4-D	70 ppb	ND
2,4,5-TP (Silvex)	50 ppb	ND
Acrylamide	TT	ND
Alachlor	2 ppb	ND
Atrazine	3 ppb	ND
Benzo(a)pyrene[PAHs]	200 ppt	ND
Carbofuran	40 ppb	ND
Chlordane	2 ppb	ND
Dalapon	200 ppb	ND
Di-(2-ethylhexyl)adipate	400 ppb	ND
Di-(2-ethylhexyl)phthalates	6 ppb	ND
Dinoseb	7 ppb	ND
Diquat	20 ppb	ND
Chloramines	4 ppm	ND
Chlorite	1 ppm	ND
HAA5	60 ppb	21
Endothall	100 ppb	ND
Endrin	2 ppb	ND
Epichlorohydrin	TT	ND
Glyphosate	700 ppb	ND
Heptachlor	400 ppt	ND
Heptachlor epoxide	200 ppt	ND
Hexachlorobenzene	1 ppb	ND
Lindane	200 ppt	ND
Methoxychlor	40 ppb	ND
Oxamyl [Vydate]	200 ppb	ND
PCBs	500 ppt	ND
Pentachlorophenol	1 ppb	ND
Picloram	500 ppb	ND
Simazine	4 ppb	ND
Toxaphene	3 ppb	ND
Benzene	5 ppb	ND
Carbon Tetrachloride	5 ppb	ND

CONTAMINANT	MCL	Amount Detected
Inorganic		
Antimony	6 ppb	ND
Arsenic	10 ppb	ND
Barium	2 ppm	0.013
Beryllium	4 ppb	ND
Cadmium	5 ppb	ND
Chromium	100 ppb	ND
Copper *	AL=1.3 ppm	0.32
Cyanide	200 ppb	ND
Fluoride	4 ppm	0.97
Lead *	AL=15 ppb	9
Mercury	2 ppb	ND
Nitrate	10 ppm	0.65
Nitrite	1 ppm	ND
Selenium	50 ppb	ND
Thallium	2 ppb	ND
<i>*90th percentile of the most recent sampling event.</i>		

CONTAMINANT	MCL	Amount Detected
Organic Chemicals (continued)		
Chlorobenzene	100 ppb	ND
Dibromochloropropane	200 ppt	ND
0-Dichlorobenzene	600 ppb	ND
p-Dichlorobenzene	75 ppb	ND
1,2-Dichloroethane	5 ppb	ND
1,1-Dichloroethylene	7 ppb	ND
Cis-1,2-Dichloroethylene	70 ppb	ND
trans-1,2-Dichloroethylene	100 ppb	ND
Dichloromethane	5 ppb	ND
1,2-Dichloropropane	5 ppb	ND
Ethylbenzene	700 ppb	ND
Ethylene dibromide	50 ppt	ND
Styrene	100 ppb	ND
Tetrachloroethylene	5 ppb	ND
1,2,4-Trichlorobenzene	70 ppb	ND
1,1,1-Trichloroethane	200 ppb	ND
1,1,2-Trichloroethane	5 ppb	ND
Trichloroethylene	5 ppb	ND
TTHM	80 ppb	16.8
Toluene	1 ppm	ND
Vinyl Chloride	2 ppb	ND
Xylenes	10 ppm	ND
TOC	TT	TT
Chlorine	4 ppm	1.69

TABLE OF UNREGULATED DRINKING WATER CONTAMINANTS

CONTAMINANT	Low Result, PPM	High Result, PPM	CONTAMINANT	Low Result, PPM	High Result, PPM
1,1 - Dichloropropene	ND	ND	Chloroform	0.0006	0.0147
1,1,1,2-Tetrachloroethane	ND	ND	Chloromethane	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	Dibromochloromethane	ND	0.0013
1,1-Dichloroethane	ND	ND	Dibromomethane	ND	ND
1,2,3 - Trichlorobenzene	ND	ND	Dicamba	ND	ND
1,2,3 - Trichloropropane	ND	ND	Dichlorodifluoromethane	ND	ND
1,2,4 - Trimethylbenzene	ND	ND	Dieldrin	ND	ND
1,3 - Dichloropropane	ND	ND	Hexachlorobutadiene	ND	ND
1,3 - Dichloropropene	ND	ND	p-Isoprpylbenzene	ND	ND
1,3,5 - Trimethylbenzene	ND	ND	M-Dichlorobenzene	ND	ND
2,2 - Dichloropropane	ND	ND	Methomyl	ND	ND
3-Hydroxycarbofuran	ND	ND	MTBE	ND	ND
Aldicarb	ND	ND	Metolachlor	ND	ND
Aldicarb Sulfone	ND	ND	Metribuzin	ND	ND
Aldicarb Sulfoxide	ND	ND	N - Butylbenzene	ND	ND
Aldrin	ND	ND	Naphthalene	ND	ND
Bromobenzene	ND	ND	N-Propylbenzene	ND	ND
Bromochloromethane	ND	ND	O-Chlorotoluene	ND	ND
Bromodichloromethane	ND	0.0023	P-Chlorotoluene	ND	ND
Bromoform	ND	ND	P-Isopropyltoluene	ND	ND
Bromomethane	ND	ND	Propachlor	ND	ND
Butachlor	ND	ND	Sec - Butylbenzene	ND	ND
Carbaryl	ND	ND	Tert - Butylbenzene	ND	ND
Chloroethane	ND	ND	Trichlorfluoromethane	ND	ND

TABLE OF SECONDARY DRINKING WATER CONTAMINANTS

Parameters	MCLG	MCL	Low Result	High Result	Parameters	MCLG	MCL	Low Result	High Result
pH	7	Monitored	7.0	7.9	Aluminum	0	0.2	ND	ND
Color, APHA (units)	N/A	15	ND	ND	Copper	N/A	1	0.001	0.001
Odor	N/A	3	ND	ND	Iron	0	0.3	ND	ND
Foaming Agents	N/A	0.5	ND	ND	Manganese	0	0.05	ND	ND
TDS	0	500	190	190	Silver	0	0.1	ND	ND
Fluoride	N/A	2.0	0.28	.97	Zinc	0	5	ND	ND
Sulfate	0	250	9.66	9.66	Total Hardness	0	Monitored	166	166
Chloride	N/A	250	5.14	5.14	Corrosivity	N/A	N/A	Non Corrosive	Non Corrosive

TABLE OF DETECTED PRIMARY DRINKING WATER CONTAMINANTS

Contaminant	MCLG	MCL	Range Detected	Likely Source of Contamination and Health Affects
Turbidity	N/A	TT	0.01 - 0.79	Soil Runoff
Fluoride	4	4 ppm	ND - .97	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Gross Alpha	0	15 pCi/l	1.0 - 1.0	Erosion of natural deposits.
Nitrate	10	10 ppm	0.65 - 0.65	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium	2	2 ppm	0.013 -0.013	Discharge of drilling wastes; discharge of metal refineries; erosion of natural deposits
Copper	1.3	AL = 1.3 ppm	0.03 - 0.32	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	0	AL= 15ppb	ND - 9	Corrosion of household plumbing systems; erosion of natural deposits
HAA5	N/A	60 ppb	ND - 21	By-product of drinking water chlorination
TTHM	N/A	80 ppb	ND - 16.8	By-product of drinking water chlorination
Chlorine	MRDLG=4	MRDL =4 ppm	0.61- 1.69	Drinking water additive for bacterial disinfection

As you can see by the tables above, 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. This report shows our water quality and what it means.

During 2020, Trussville Gas and Water incurred a Disinfection Byproduct (DBP) reporting non-compliance. The non-compliance resulted from a failure to submit the January - March 2020 results by the reporting deadline of April 10, 2020. A reporting non-compliance has no effect on the quality of the water being provided. All required monitoring was conducted within the required monitoring period, and at no time did the water fail to meet or exceed the standards for safe drinking water.

What Does That Mean?

The following definitions and abbreviations will help explain the charts and graphs included in this report.

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

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

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

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

Nephelometric Turbidity Units (NTU): A measure of clarity.

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

Non-Detect (ND): Not detectable at testing limits.

Parts per Million (PPM): milligrams per liter (mg/l). One part per million corresponds to a single penny in \$10,000.

Parts per Billion (PPB): micrograms per liter (ug/l). One part per billion corresponds to a single penny in \$10,000,000.

Parts per Trillion (PPT): nanograms per liter (nanograms/l). One part per trillion corresponds to a single penny in \$10,000,000,000.

Picocuries per Liter (pCi/L): A measure of radioactivity.

Millirems per Year (mrem/yr): Measure of radiation absorbed by the body.

Standard Units (S.U.): pH of water measures the water's balances of acids and bases. Water with less than 6.5 could be acidic, soft and corrosive. A pH greater than 8.5 could indicate that the water is hard.

N/A: Not applicable

FDA: Food and Drug Administration.

CDC: Centers for Disease Control.

EPA: Environmental Protection Agency.

ADEM: Alabama Department of Environmental Management.



The U.S. Environmental Protection Agency (EPA) wants you to know:

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limits the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCLs defined in a List of Definitions in this report, are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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). 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.

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 runoff, 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 runoff, 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.

Important Information About 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. Trussville Gas and Water 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>.

Notes:

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. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency (EPA)/Centers for Disease Control (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 (1-800-426-4791).

Based on a study conducted by The Alabama Department of Environmental Management (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.

Turbidity is a measure of the cloudiness of the water, a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Water Systems are selected by The Environmental Protection Agency (EPA) to participate in the Unregulated Contaminant Monitoring (UCMR) program to collect nationally representative data for contaminants suspected to be present in drinking water. These contaminants do not have regulatory standards. The monitoring period is between 2018 – 2020. This monitoring is used by the EPA to understand the frequency and level of occurrence of unregulated contaminants in the nation’s public water systems. Every five years the EPA develops a new list of UCMR contaminants, largely based on the Contaminant Candidate List (CCL). The detection of a UCMR contaminant does not represent cause for concern, in and of itself.

Table of Detected UCMR 4 Contaminants

Contaminant	Minimum Reporting Level (MRL/ug/L)	Reference Concentration (ug/L)	Range Detected	Additional Information
Bromide	NA	NA	20-20	An indicator for HAA
Bromochloroacetic Acid	NA	NA	0.43-0.85	By-products of drinking water chlorination
Bromodichloroacetic Acid	NA	NA	ND-0.96	By-products of drinking water chlorination
Chlorodibromoacetic Acid	NA	NA	ND-0.60	By-products of drinking water chlorination
Dibromoacetic Acid	NA	NA	ND-0.43	By-products of drinking water chlorination
Dichloroacetic Acid	NA	NA	0.70-1.8	By-products of drinking water chlorination
Haloacetic Acids	NA	NA	ND-2.5	By-products of drinking water chlorination
Trichloroacetic Acid	NA	NA	ND-0.75	By-products of drinking water chlorination

The following definitions and abbreviations will help you have a clearer understanding of the UCMR4 chart included in this report.

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.





2021 Water Quality Report

We are proud to report Trussville Gas and Water has ***met or exceeded all federal and state standards*** for drinking water during the 2020 reporting period.



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