

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. Maximum Contaminant Levels (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. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and it can pick up substances resulting from the presence of animals and 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 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.

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, individuals with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. Individuals at risk should seek advice about drinking water from their health care providers.

Surface water sources are tested for pathogens such as Cryptosporidium at certain intervals determined by the EPA and the ADEM. These pathogens can enter the water from animal or human waste. All test results were well within Federal and State standards. For people who may be immuno-compromised, a guidance document developed by the Center for Disease Control is available online at <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=200024LD.txt> or from the Safe Drinking Water Hotline at 1-800-426-4791. This language does not indicate the presence of Cryptosporidium in our drinking water.

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

Definitions

Action Level (AL) - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

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

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.

Locational Running Annual Average (LRAA) - yearly average of all the DPB results at each specific sampling site in the distribution system. The highest distribution site LRAA is reported in the Table of Detected Contaminants.

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

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

Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water Millirems per year (mrem/yr)-measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - 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 above detection limits of lab equipment.

Not Reported (NR) - laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends secondary standards to water systems but does not require systems to comply.

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 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 \$10,000,000,000,000.

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 \$10,000,000,000.

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

RAA - Running annual average

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. 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.

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.

Source Water Assessment

Troy Utilities has completed all the components of the required Source Water Assessment Plan (SWAP) in accordance with the Alabama Department of Environmental Management (ADEM) regulations. This plan assists with protecting our water sources. The plan provides information such as the delineation of wellhead protection areas and potential sources of contamination within these areas. It also includes a susceptibility analysis which classifies potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. The SWAP is updated as needed. The SWAP report is available in our office for review, or you may request a copy. Please help us protect 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.

Troy Utilities	
Water Sources	6 groundwater wells producing from the Ripley and Tuscaloosa aquifers
Inter-Connections	
Water Treatment	Chlorination for disinfection fluoridation at wells 3 and 4 for tooth health
Storage Capacity	Seven elevated storage tanks with a total capacity of 4.75 million gallons
Number of Customers	Approximately 7500 metered service connections
Assistant General Manager	Solomon Brackett

City Council	
Mayor	Jason A. Reeves
District 1	Sharon McSwain-Holland
District 2	Greg Meeks
District 3	Marcus Paramore, President
District 4	Stephanie Baker
District 5	Wanda Moultry

Questions?

If you have any questions about this report or concerning Troy Utilities, please contact Brian Chandler, General Manager, at 334-566-0177. We want our valued customers to be informed about their water utility. Council meetings are held on the second and fourth Tuesday of each month at 5:00 p.m. at Troy City Hall, 301 Charles W. Meeks Avenue, Troy, Alabama.

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

2022 Annual Water Quality Report

(Testing Performed January through December 2021)



CITY OF TROY UTILITIES

PWSID AL0001124

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P. O. Box 549 Troy, AL 36081

Phone 334-566-0177

Fax 334-808-7404

The Troy Utilities Department is pleased to present this Annual Water Quality Report to inform you about the quality of the water delivered to you. We work diligently to provide a high quality, cost effective drinking water supply.

Monitoring Schedule

Troy Utilities water sources are routinely monitored for contaminants according to a schedule determined by Federal and State regulations, using EPA approved methods and State-certified laboratories. Every water system has individually assigned monitoring requirements. The ADEM allows monitoring of some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The following table shows the most recent year of monitoring for these contaminant groups.

Constituents Monitored	Year Monitored
Inorganic Contaminants	2021
Lead/Copper	2019
Microbiological Contaminants	Monthly
Nitrates	2021
Radioactive Contaminants	2016
Synthetic Organic Contaminants (including pesticides & herbicides)	2021
Volatile Organic Contaminants	2021
Disinfection By-products	2021
Unregulated Contaminants Monitoring Rule 4 (UCMR4) Contaminants	2019
Distribution System Evaluation (DSE) Disinfection By-products	2021

Monitoring Results

This report contains results from the most recent monitoring of primary, secondary, and unregulated contaminants. The monitoring was performed in accordance with the sampling requirements established by EPA and ADEM. We have learned through our monitoring and testing that some constituents have been detected. It is the goal of the City of Troy that your drinking water meets all necessary health standards. To ensure the safety of the drinking water, the City of Troy must regularly monitor your drinking water for specific contaminants.

UNREGULATED CONTAMINANTS						
	Violation Y/N	Level Detected	Units	MCLG	MCL	Likely Source of Contamination
Chloroform	NO	.0093 - 0.0167	mg/L	n/a	n/a	Water additive used to control microbes
Bromodichloromethane	No	.0061-.00563	mg/L	n/a	n/a	Naturally present in the environment, technically in reporting
Dibromochloromethane	NO	.0051-.00645	mg/L	n/a	n/a	Soil runoff
Dichloroacetic Acid	NO	0.00147-0.0062	ug/L	n/a	n/a	Erosion of natural deposits
Bromoform	NO	0.00056-0.00324	mg/L	n/a	n/a	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Information about Lead

Elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. However, lead is rarely found in source water. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Troy Utilities is responsible for providing high quality drinking water but cannot control the variety of materials used in home plumbing components. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. 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.

Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Lead in household water usually comes from the plumbing in your house, not from the local water supply, and hot water is more likely to cause lead to leach from plumbing materials. 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 online at www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water or by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Primary Drinking Water Contaminants

Below is a list of Primary Drinking Water Contaminants and some Unregulated Contaminants for which our water system monitors according to a schedule assigned to us by the Alabama Department of Environmental Management (ADEM). These contaminants were not detected in your drinking water unless they are listed in the Table of Detected Drinking Water Contaminants.

Standard List of Primary Drinking Water Contaminants					
Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants			trans-1,2-Dichloroethylene		
Total Coliform Bacteria	<5%	present/absent	Dichloromethane	100	ppb
Fecal Coliform & E Coli	0	present/absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calc. organisms/l	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants			Dinoseb		
Beta/Photon emitters	4	mrem/yr	Dioxin (2,3,7,8-TCDD)	30	ppq
Alpha emitters	15	pCi/l	Diquat	20	ppb
combined radium	5	pCi/l	Endothal	100	ppb
uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals			Epichlorohydrin		
Antimony	6	ppb	Ethylbenzene	700	ppb
Arsenic	10	ppb	Ethylene dibromide	50	ppt
Asbestos	7	MFL	Glyphosate	700	ppt
Barium	2	ppm	Heptachlor	400	ppb
Beryllium	4	ppb	Heptachlor epoxide	200	ppb
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Heptachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	ppt
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxarmyl (Vydate)	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls	0.5	ppb
Mercury	2	ppb	Pentachlorophenol	1	ppb
Nitrate	10	ppm	Picloram	500	ppb
Nitrite	1	ppm	Simazine	4	ppb
Selenium	.05	ppm	Styrene	100	ppb
Thallium	.002	ppm	Tetrachloroethylene	5	ppb
Organic Contaminants			Toluene		
2, 4-D	70	ppb	Toxaphene	3	ppb
Acrylamide	TT	TT	2,4,5-TP(Silvex)	50	ppb
Alachlor	2	ppb	1,2,4-Trichlorobenzene	.07	ppm
Atrazine	3	ppb	1,1,1-Trichloroethane	200	ppb
Benzene	5	ppb	1,1,2-Trichloroethane	5	ppb
Benzo(a)pyrene (PAHs)	200	ppt	Trichloroethylene	2	ppb
Carbofuran	40	ppb	Vinyl Chloride	10	ppm
Carbon tetrachloride	5	ppb	Xylenes	10	ppm
Chlordane	2	ppb	Disinfectants & Disinfection Byproducts		
Chlorobenzene	100	ppb	Chlorine	4	ppm
Dalapon	200	ppb	Chlorine Dioxide	800	ppb
Dibromochloropropane	200	ppt	Chloramines	4	ppm
o-Dichlorobenzene	600	ppb	Bromate	10	ppb
p-Dichlorobenzene	75	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
cis-1,2-Dichloroethylene	70	ppb			

DETECTED DRINKING WATER CONTAMINANTS						
Regulated Primary Contaminants						
	Violation Y/N	Level Detected	Units	MCLG	MCL	Likely Source of Contamination
Chlorine residual	NO	.21-3.60	ppm	MRDLG=4	MRDL =4	Water additive used to control microbes
Total coliform bacteria	No	1 Positive sample in Feb, Oct, Nov.	Present or Absent	0	presence in 5% of monthly samples	Naturally present in the environment, technically in reporting
Turbidity	NO	ND	NTU	n/a	TT	Soil runoff
Combined radium	NO	ND	PCi/l	1.3	5	Erosion of natural deposits
Copper	NO	0.11 ** 0 < AL	ppm	4	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	0.31-1.45	ppm	0	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from factories
Lead	NO	.24 ** 0 < AL	ppb	10	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	NO	.00003 - .00004	ppm	50	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of deposits
Barium	NO	.00 - .014	mg/L	0	50	Naturally present in the environment and Industrial runoff
TTHM [Total Trihalomethanes]	NO	4.56 - 23.4	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total Haloacetic Acids]	NO	1.47 - 8.02	ppb	0	60	By-product of drinking water chlorination
Secondary Contaminants						
	Violation Y/N	Level Detected	Units	MCLG	MCL	Likely Source of Contamination
Alkalinity	NO	152-199	ppb	n/a	n/a	Caused by carbonates, bicarbonates and hydroxides. Phosphates & silicates contribute
Aluminum	NO	ND-.046	mg/L	n/a	0.2	Erosion of natural deposits or as a result of treatment with water additives
Calcium	NO	0.37-10.4	mg/L	n/a	n/a	Erosion of natural deposits runoff
Carbon Dioxide	NO	ND-17.3	mg/L	n/a	n/a	Naturally present in drinking water; sometimes added as water treatment to adjust pH
Chloride	NO	5.47-14.9	mg/L	n/a	250	Naturally occurring in the environment or from runoff
Hardness as CaCo3	NO	ND-36.7	mg/L	n/a	n/a	Naturally occurring in the environment or as a result of treatment with water additives
pH	NO	7.7-9.1	s.u.	n/a	6.5-8.5	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	NO	60.7-116	mg/L	n/a	n/a	Naturally occurring in the environment
Specific Conductance	NO	ND	umhos/cm	n/a	n/a	Erosion of natural deposits or as a result of treatment with water additives
Sulfate	NO	5.04-37.5	mg/L	n/a	250	Naturally occurring in the environment; erosion of natural deposits
Total Dissolved Solids	NO	224-310	mg/L	n/a	500	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Zinc	NO	ND-.013	mg/L	n/a	5	Industrial runoff
Iron	NO	ND-.035	mg/L	n/a	0.3	Corrosion of iron or steel pipes or other components of the plumbing and/or distribution system
Color	NO	6.0	color units	n/a	15	Soil runoff and other compounds present in water
Manganese	NO	ND-0.0069	mg/L	n/a	0.05	An element that is found naturally in the environment

** Figure shown is 90th percentile, and number of sites above Action Level (AL) = 0

Unregulated Contaminant Monitoring Rule 4 (UCMR4) Contaminants - 2018-2019		
Contaminant	Unit Msmt	Level Detected
Germanium	ppb	ND-0.855
Manganese	ppb	1.80-8.76
Alpha-hexachlorocyclohexane	ppb	ND
Chlorpyrifos	ppb	ND
Dimethipin	ppb	ND
Ethoprop	ppb	ND
Oxyfluorfen	ppb	ND
Profenofos	ppb	ND
Tebuconazole	ppb	ND
Total permethrin (cis- & trans-)	ppb	ND
Tribufos	ppb	ND
1-butanol	ppb	ND
2-methoxyethanol	ppb	ND
2-propen-1-ol	ppb	ND
Butylated hydroxyanisole	ppb	ND
O-toluidine	ppb	ND
Quinoline	ppb	0.051-0.632
Total Organic Carbon (TOC)	ppb	ND
Bromide	ppb	ND-89.4
Bromochloroacetic	ppb	0.306-0.796
Bromodichloroacetic	ppb	ND
Chlorodibromoacetic	ppb	ND
Dibromoacetic	ppb	ND-0.378
Dichloroacetic	ppb	0.429-1.55
Monobromoacetic	ppb	ND
Monochloroacetic	ppb	ND
Tribromoacetic	ppb	ND
Trichloroacetic	ppb	ND