

**2022 Annual Water Quality Report
(Covering period January - December 2021)**

SOUTH ALABAMA UTILITIES

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A copy of the annual CCR Report is on our website at www.southalabamautilities.net.

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. We are pleased to report that our drinking water meets federal and state requirements.

Water Sources	19 groundwater wells producing from the Pliocene-Miocene aquifer:		
	Well 1 -Jail Well	Well 13 -Eliza Jordan Well #2	
	Well 2 -U.S. Highway 45 Well	Well 14 -Fairford Well	
	Well 3 -Willie Street Well	Well 15 -Calvert Well	
	Well 4 -5 th Street Well	Well 16 -Georgetown Well	
	Well 5 -Lott Road Well	Well 17A -Scott Plantation Well (deep)	
	Well 6 -Snow Road Well (inactive)	Well 17B -Scott Plantation Well (shallow)	
	Well 7 -Johnson Road Well	Well 18 -Coy Smith well	
	Well 8 -Wilmer Town Hall Well	Well 19 -Airport Well	
	Well 11 -Eliza Jordan Well #1	Well 20 -Calvert 43 well	
	Well 12 -Mary Montgomery Well		
	Number of Customers	Approximately 20,000	
	Water Treatment	Chlorination, corrosion control, and pH treatment	
Storage Capacity	13 active storage tanks, for a combined capacity of 8,648,000 gallons		
Additional Connections	Turnerville Water, McIntosh Water, and Kushla Water for emergency purposes only		
Board Members	Marcus Hobbs, Chairman	Jason Stringer, Director and Mayor	
	Al McDonald, Vice-Chairman	Jeff Smith, Director	
	Larry Yonge, Secretary-Treasurer		
General Manager	Donnie Cunningham		

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), South Alabama Utilities developed a Source Water Assessment to assist in protecting our water sources. This plan includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. Over 75% percent of the potential contaminants sited in our assessment areas were ranked as non-susceptible and medium risk. The report was approved by ADEM. A copy of the report is available in our office for review, 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.

Questions?

If you have any questions about this report or concerning your water utility, call:

Citronelle, Fairford, & Calvert areas	Phillip Weaver	251-866-2365, ext 125
Semmes, Fairview, Wilmer, and West Mobile areas	Kevin Evans	251-649-4317, ext 215

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 second and fourth Wednesday of each month at South Alabama Utilities office located at 8100 Joy Street, Citronelle, AL at 1:00 P.M. A board meeting schedule is also available on www.southalabamautilities.net to check for holiday dates and times.

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).

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. 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.

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 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 amount 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 risk should seek advice about drinking water from their health care providers. 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.

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. Your water system 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.

Use *only* water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply. 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 www.epa.gov/safewater/lead.

Monitoring Schedule and Results

We routinely monitor your drinking water for contaminants according to Federal and State laws. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Constituent Monitored	Date Monitored
Inorganic Contaminants	2021
Lead/Copper	2020
Microbiological Contaminants	current
Nitrates	2021
Radioactive Contaminants	2021
Synthetic Organic Contaminants (including pesticides and herbicides)	2021
Volatile Organic Contaminants	2021
Disinfection By-products	2021
Unregulated Contaminant Monitoring Rule 4 (UCMR4)	2019

South Alabama Utilities *routinely* monitors for constituents in your drinking water according to Federal and State laws. As you can see by the Table of Detected Drinking Water Contaminants, 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 or exceeds federal and state requirements.

TABLE OF DETECTED DRINKING WATER CONTAMINANTS						
Contaminants	Violation Y/N	Level Detected	Unit Msmt.	MCLG	MCL	Likely Source of Contamination
Alpha emitters	NO	Total 2.87	PCi/l	0	15	Erosion of natural deposits
Radium-228	NO	Total 1.71	PCi/l	0	5	Erosion of natural deposits
Barium	NO	0.01	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	NO	0.330 * 0 > AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching of wood preservatives
Nitrate (as Nitrogen)	NO	ND-0.76	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM [Total trihalomethanes]	NO	Annual 18.0-56.0	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	Annual 9.80-36.0	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Chloroform	NO	ND-16.0	ppb	n/a	n/a	Naturally occurring or from discharge or runoff
Bromodichloromethane	NO	ND-11.0	ppb	n/a	n/a	Naturally occurring or from discharge or runoff
Chlorodibromomethane	NO	ND-19.0	ppb	n/a	n/a	Naturally occurring or from discharge or runoff
Bromoform	NO	ND-20.0	ppb	n/a	n/a	Naturally occurring or from discharge or runoff
Dibromochloromethane	NO	ND-40.0	ppb	n/a	n/a	Naturally occurring or from discharge or runoff
Dibromomethane	NO	ND-0.64	ppb	n/a	n/a	Naturally occurring or from discharge or runoff
Secondary Contaminants						
Chloride	NO	15.5	ppm	n/a	250	Naturally occurring or from discharge or runoff
Color	NO	5.0	color units	n/a	15	Naturally occurring or from water additives
Hardness	NO	3.9	ppm	n/a	n/a	Naturally occurring or from water additives
Manganese	NO	0.01	ppm	n/a	0.05	Erosion of natural deposits; leaching from pipes
pH	NO	7.7	S.U.	n/a	n/a	Naturally occurring or from water additives
Sodium	NO	39.3	ppm	n/a	n/a	Naturally occurring in the environment
Sulfate	NO	5.5	ppm	n/a	250	Naturally occurring or from discharge or runoff
Total Dissolved Solids	NO	151	ppm	n/a	500	Naturally occurring or from discharge or runoff

* Figure shown is 90th percentile and # of sites above action level (1.3 ppm) = 0

UCMR4

The Fourth Unregulated Contaminant Monitoring Rule (UCMR4) requires some systems to monitor for 30 unregulated contaminants during January 2018 through December 2020 on an assigned schedule. The table below shows the contaminants we were required to monitor and the results of our monitoring in 2019.

UCMR 4 Contaminants					
Contaminants	Unit Msmt	Level Detected	Contaminants	Unit Msmt	Level Detected
Germanium	ppb	ND-0.81	Total permethrin (cis- & trans-)	ppb	ND
Manganese	ppb	ND-42.4	Tribufos	ppb	ND
Alpha-hexachlorocyclohexane	ppb	ND	1-butanol	ppb	ND
Chlorpyrifos	ppb	ND	2-methoxyethanol	ppb	ND
Dimethipin	ppb	ND	2-propen-1-ol	ppb	ND
Ethoprop	ppb	ND	Butylated hydroxyanisole	ppb	ND
Oxyfluorfen	ppb	ND	O-toluidine	ppb	ND
Profenofos	ppb	ND	Quinoline	ppb	ND
Tebuconazole	ppb	ND			
Distribution Samples			Distribution Samples		
HAA5	ppb	15.8-27.7	Total organic carbon (TOC)	ppb	ND-8620
HAA6Br	ppb	7.70-12.4	Bromide	ppb	ND-303
HAA9	ppb	12.5-39.1			

Reporting Non-compliances 2021

The South Alabama Utilities has incurred two separate reporting non-compliances. The Volatile Organic Chemicals (VOC) non-compliance resulted from a failure to submit the April – June 2021 results by July 10, 2021. The Radiologicals non-compliance resulted from a failure to submit the October 2021 – December 2021 results for Well 5 by January 10, 2022.

South Alabama Utilities performed the sampling on time; however, a State certified analytical laboratory experienced separate challenges that caused the late reporting: 1) Lab equipment failure prevented the VOC report from being ready on time, and 2) personnel shortages due to COVID prevented the Radiological report from being submitted on time. Your water quality was not affected by either of these late reporting occurrences. All results were well within compliance levels.

ADEM Admin. Coder. 335-7-2-.20(1)(a) states, "the supplier of water shall report to the Department the results of any test, measurement or analysis within the first 10 days following the month in which the result is received or the first 10 days following the end of the required monitoring period as stipulated by the Department, whichever is shortest." South Alabama Utilities prioritizes your water quality and makes every effort to comply with water quality regulations.

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. If you have any questions about this reporting non-compliance or our monitoring requirements, please contact Phillip Weaver at our water office at 8100 Joy Street or by phone at 251-866-2365.

Definitions

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

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. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

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

Locational Running Annual Average (LRAA)-yearly average of all the DPB results at each specific sampling site in the distribution system. Reported as a range from lowest to highest in the Table of Detected Contaminants.

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

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-Detect (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 ($\mu\text{g/l}$)-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.

Standard Units (S.U.)-pH of water measures the water's balances of acids and bases.

Treatment Technique (TT) - a required process to reduce a contaminant.

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

Below is a *Table of Primary Drinking Water Contaminants*. These contaminants were *not* detected in your water unless they appear in the *Table of Detected Contaminants*.

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS					
Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants			trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	<5%	present or absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present or absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calculated organisms/liter	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants			Dinoseb	7	ppb
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	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals			Epichlorohydrin	TT	TT
Antimony	6	ppb	Ethylbenzene	700	ppb
Arsenic	10	ppb	Ethylene dibromide	50	ppt
Asbestos	7	MFL	Glyphosate	700	ppb
Barium	2	ppm	Heptachlor	400	ppt
Beryllium	4	ppb	Heptachlor epoxide	200	ppt
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Hexachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	ppt
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxamyl [Vydate]	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls (PCBs)	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	1	ppm
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
Benzene	5	ppb	1,1,1-Trichloroethane	200	ppb
Benzo(a)pyrene [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
o-Dichlorobenzene	600	ppb	Chloramines	4	ppm
p-Dichlorobenzene	75	ppb	Bromate	10	ppb
1,2-Dichloroethane	5	ppb	Chlorite	1	ppm
1,1-Dichloroethylene	7	ppb	HAA5 [Total haloacetic acids]	60	ppb
cis-1,2-Dichloroethylene	70	ppb	TTHM [Total trihalomethanes]	80	ppb
UNREGULATED CONTAMINANTS					
1,1 – Dichloropropene	Aldicarb		Chloroform		Metolachlor
1,1,1,2-Tetrachloroethane	Aldicarb Sulfone		Chloromethane		Metribuzin
1,1,2,2-Tetrachloroethane	Aldicarb Sulfoxide		Dibromochloromethane		N - Butylbenzene
1,1-Dichloroethane	Aldrin		Dibromomethane		Naphthalene
1,2,3 - Trichlorobenzene	Bromobenzene		Dicamba		N-Propylbenzene
1,2,3 - Trichloropropane	Bromochloromethane		Dichlorodifluoromethane		O-Chlorotoluene
1,2,4 - Trimethylbenzene	Bromodichloromethane		Dieldrin		P-Chlorotoluene
1,3 – Dichloropropane	Bromoform		Hexachlorobutadiene		P-Isopropyltoluene
1,3 – Dichloropropene	Bromomethane		Isopropylbenzene		Propachlor
1,3,5 - Trimethylbenzene	Butachlor		M-Dichlorobenzene		Sec - Butylbenzene
2,2 – Dichloropropane	Carbaryl		Methomyl		Tert - Butylbenzene
3-Hydroxycarbofuran	Chloroethane		MTBE		Trichlorofluoromethane