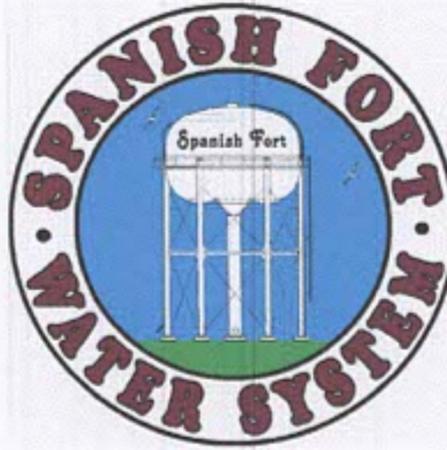


Spanish Fort Water System



January 1st thru December 31st 2019

SPANISH FORT WATER SYSTEM, INC.
Post Office Box 7048
Spanish Fort, Alabama 36577

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe 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. I'm pleased to report that our drinking water is safe and meets federal and state requirements.

Sources of Water

We have a source water protection plan available from our office that provides more information such as potential sources of contamination. Operating under permit by the Alabama Department of Environmental Management, the Spanish Fort Water System has two wells that draw from the Miocene Aquifer. Well #5 is located on Water Tower Rd., and Well #4 is located behind the Rouses Shopping Center. Spanish Fort Water System also purchased water from The Mobile Area Water and Sewer System and North Baldwin Utilities. The source of MAWSS customers' drinking water is Converse Reservoir (Big Creek Lake), which is fed by springs, streams, and rainfall in the Converse Reservoir Watershed. North Baldwin Utilities obtains its drinking water through the use of eight public water supply wells. The wells produce groundwater from sand units in the aquifer known regionally as the Pliocene-Miocene Aquifer. North Baldwin Utilities identifies these sand units as the Bay Minette Middle Aquifer which supplies groundwater to Wells #2, #3, #4 and #5 and the Bay Minette Lower Aquifer which supplies groundwater to Wells #5 and #6. Well # 8 is supplied by a deep Miocene sand aquifer identified as the North Baldwin Rayburn aquifer. Well #9A and #9B is supplied by a Miocene Undifferentiated aquifer. Well # 11 is supplied by deep Miocene sand aquifer identified as the Tensaw aquifer. Well # 12 is supplied by the Stapleton 275 foot aquifer. The source of recharge to the aquifers is precipitation. The produced groundwater is treated with chlorination, fluoridation and corrosion control prior to distribution.

Table of Primary Contaminants

Spanish Fort Water System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of the combined monitoring of Spanish Fort Water System, North Baldwin Utilities, and Mobile Area Water And Sewer System, for the period of January 1st thru December 31st, 2019.

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					
Total Coliform Bacteria	< 5%	Absent to 17.1	Endothall	100 ppb	ND
Turbidity	TT	0.24 to 7.2	Endrin	2 ppb	ND
Radiological					
Beta photon emitters (pCi/L)	4	0.6 to 2.33	Epichlorohydrin	TT	ND
Alpha emitters (pci/l)	15	0.267 to 9.7	Glyphosate	700 ppb	ND
Combined radium (pci-l)	5	0.3 to 2.51	Heptachlor	400 ppt	ND
Inorganic					
Antimony	6 ppb	ND	Heptachlor epoxide	200 ppt	ND
Arsenic	10 ppb	ND	Hexachlorobenzene	1 ppb	ND
Asbestos (MFL)	7	Waived	Lindane	200 ppt	ND
Barium	2 ppm	0.03	Methoxychlor	40 ppb	ND
Beryllium	4 ppb	ND	Oxamyl (Vydate)	200 ppb	ND
Cadmium	5 ppb	ND	PCBs	500 ppt	ND
Chromium	100 ppb	ND to 0.4	Pentachlorophenol	1 ppb	ND
Copper	AL=1.3 ppm	ND to 0.0061	Picloram	500 ppb	ND
Cyanide	200 ppb	ND	Simazine	4 ppb	ND
Fluoride	4 ppm	ND to 2.04	Terbufos	3 ppb	ND
Lead	AL=15 ppb	ND to 0.002	Benzene	5 ppb	ND
Mercury	2 ppb	ND	Carbon Tetrachloride	5 ppb	ND
Nitrate	10 ppb	0.11 to 0.95	Chlorobenzene	100 ppb	ND
Nitrite	1 ppm	ND	Dibromochloropropane	200 ppt	ND
Selenium	50 ppb	ND	o-Dichlorobenzene	600 ppb	ND
Thallium	2 ppb	ND	p-Dichlorobenzene	75 ppb	ND
Organic Chemicals					
1,4-D	70 ppb	ND	1,2-Dichloroethane	5 ppb	ND
2,4,5-TP (Silvex)	50 ppb	ND	o,1,1-Dichloroethane	5 ppb	ND
Acrylamide	TT	ND	Ethylbenzene	700 ppb	ND
Alachlor	2 ppb	ND	Ethylene dibromide (EDB)	30 ppt	ND
Atrazine	3 ppb	ND	Styrene	100 ppb	ND
Benzo(a)pyrene(PHAs)	200 ppt	ND	Tetrachloroethylene	5 ppb	ND
Carbofuran	40 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Chlordane	2 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Dalapon	200 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Di-(2-ethylhexyl)adipate	400 ppb	ND	Trichloroethylene	5 ppb	ND
Di(2-ethylhexyl)phthalate	6 ppb	ND	TTM / HAA5	80 ppb	(See Note 1)
Dinoseb	7 ppb	ND	Toluene	1 ppb	ND
Diquat	20 ppb	ND	Vinyl Chloride	2 ppb	ND
Dioxin[2,3,7,8-TCDD]	30	Waived	Xylenes	10 ppm	ND to 7.2

Note 1 = See Table of Detected Contaminants for Total Trihalomethanes (THMs) and Haloacetic Acids (HAA5) analytical results.
ppt = parts per trillion; Waived = Statewide Waiver; ND = Not Detected; HA = Highest Average

Educational Information

MCL's 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. 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 infection. These people 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). 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. 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.

Message to Our Customers

We are committed to the quality of your drinking water. As in the past, your drinking water has been and remains safe to drink with no monitoring violations. 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.

Table of Detected Contaminants

CONTAMINANT	MCLG	MCL	Range	Highest Amount Detected		Likely Source of Contamination
Bromide	NA	NA	0 to 43.2	43.2	ppb	Not Listed
Chlorate	NA	NA	0.05 to 0.73	0.73	ppm	Disinfection By-Product
Turbidity	NA	TT	ND to 7.2 (TT not exceeded)	7.2	NTU	Soil runoff
Fluoride	4	4	ND to 2.04	2.04	ppm	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Copper (every 3 years)	1.3	AL=1.3 (AL not exceeded)	ND - 0.0061		ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead (every 3 years)	0	AL=15 (AL not exceeded)	ND - 0.0014		ppb	Corrosion of household plumbing systems, erosion of natural deposits
Zinc	5	5	ND to 0.29	0.29	ppm	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate	10	10	0.11 to 0.95	0.95	ppm	Runoff from fertilizer use, leaching from septic tanks, seepage, erosion of natural deposits
Total Organic Carbon (TOC)	NA	TT	Lowest Performance Ratio 1.31	1.86	TT	Naturally present in the environment
Color	NA	NA	25	25	Color Units	Naturally present in the environment
Threshold Odor Number	NA	3	<1 to 1	1	I.O.N.	Naturally present in the environment
Total Dissolved Solids	NA	500	41 to 392	392	ppm	Naturally present in the environment
THM	0	80	ND to 75.1	75.1	ppb	Disinfection By-Product
HAA5	NA	80	ND to 40.5	40.5	ppb	Disinfection By-Product
Gross Alpha	0	15	ND to 9.7	9.7	(pCi/l)	Erosion of natural deposits
Gross Beta	0	20	ND to 2.34	2.34	(pCi/l)	Erosion of natural deposits
Chlorate	MMDLG=4	MMDCL=4	ND to 2.52	2.52	ppm	Water additive used to control microbes
Chlorate Dioxide	MMDLG=800	MMDCL=800	ND to 310	310	ppb	Water additive used to control microbes
Aluminum	NA	0.2	0.12 to 0.27	0.27	ppm	Erosion of natural deposits
Chloride	NA	250	7.1	7.1	ppm	Secondary Contaminant
Iron	NA	0.3	ND to 5.29	5.29	ppm	Secondary Contaminant
Manganese	NA	0.05	ND to 1.09	1.09	ppm	Secondary Contaminant
Cyanide	NA	10	ND to 7.2	7.2	ppb	Discharge from petroleum refineries/chemical factories/gas station releases
Alkalinity as CaCO ₃ **	NA	NA	6.1 to 125	125	ppm	
Carbon Dioxide **	NA	NA	ND to 5.8	5.8	ppm	
Iron **	NA	NA	3.4 to 119	119	ppm	
Sulfate as SO ₄ **	NA	NA	3.95 to 25.1	25.1	ppm	
Calcium **	NA	NA	3.39 to 15.5	15.5	ppm	
Magnesium **	NA	NA	0.0135 to 1.1	1.1	ppm	** Special Conductivity Monitoring - MAWTS has implemented a corrosion control program.
Hardness as CaCO ₃ **	NA	NA	22.4 to 43.2	43.2	ppm	
Specific Conductance	NA	NA	29.2 to 740	740	uMhos	
pH **	NA	NA	6.5 to 10.7	10.7		
Corrosivity (acceleration index) **	NA	NA	0.78 to -2.43	-2.43	(LSD)	
Orthophosphate	NA	NA	0.15 to 0.22	0.22	ppm	
Combined Radon	0	5	ND to 2.31	2.31	pCi/l	Erosion of natural deposits

* EPA removed the new MCLG for chlorate from its National Primary Drinking Water Regulations, effective May 20, 2000, in accordance with an order of the U.S. Court of Appeals for the District of Columbia Circuit.

Lead Notice

Every report shall contain the following lead-specific information: If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Spanish Fort 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. 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>.

In 1974, the Safe Drinking Water Act (SDWA) was signed into law requiring all water systems that serve the public to meet national standards for water quality. These standards set the limits for certain contaminants and require all public water systems to monitor for these contaminants. Spanish Fort Water System routinely tests for these constituents in your drinking water according to Federal and State laws. The tables in this report show the monitoring results of the Calendar Year 2019 Sampling Schedule beginning January 1 through December 31 of 2019.

Definitions

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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 (ug/l) - one part per billion corresponds to one minute in a million years or a single penny in \$10,000,000.

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. MCLGs allow for a margin of safety.

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.

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

Treatment Technique (TT) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water

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

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.

Results of Radon Monitoring

Radon is radioactive gas that you can't see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix Your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

Dioxin and Asbestos

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 is not required.

If you have any questions about this report, please contact Terry Evans at 626-3067. 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 second Tuesday of each month at 5 pm. Our Board Members are: Jimmy Ashcraft (President), Tommy Danner (Vice President), Robbins Flynn, Joe Hamric and Doug Miles.