

The Belforest Water System routinely monitors for contaminants in your drinking water according to Federal and State laws. The enclosed tables shows the results of our monitoring for the period of January 1st to December 31st, 2018. 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. 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)*.

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.

- ABOUT OUR SYSTEM -

The Belforest Water System utilizes groundwater pumped from 3 wells located in the Miocene Aquifer. The groundwater supplied to our customers is treated with chlorine as disinfectant and the required residual is maintained to protect your drinking water from any possible outside contaminants within the distribution system.

Belforest Water System utilizes a Bacteriological Monitoring Plan, and a Cross Connection Policy is in place to insure good safe drinking water for our customers. The Belforest Water System has completed a Source Water Assessment Plan which provides information about potential sources of contamination and is set up to help protect our source. This plan is available for review at the office at 9080 County Road 64, Daphne AL.

- GENERAL INFORMATION -

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.

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. 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/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).

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 Belforest 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>.

- NOTICE OF CORRECTIVE ACTION -

In April 2018, ADEM issued a monitoring non-compliance notification for the January 2018 – March 2018 monitoring period. Since mitigating circumstances led to the non-compliance, ADEM did not require issuance of public notifications. The non-compliance occurred because the testing laboratory was unable to analyze a Di(2-ethylhexyl)phthalate sample from Well 1 within the referenced monitoring period. The laboratory could not analyze the sample that had been collected by an employee of ADEM because it was out of the allowable holding time.

- IMPORTANT DRINKING WATER DEFINITIONS -

Disinfection Byproducts – contaminants formed when chlorine is used as a disinfectant.

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 - 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 (nanograms/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 (picograms/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.

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.

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

Maximum Contaminant Level Goal or 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 Contaminant Level or 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 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.

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

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

Action Level - The concentration of a contaminant that triggers treatment or other requirement a water system shall follow.

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.



**BELFOREST WATER SYSTEM
ANNUAL DRINKING WATER QUALITY REPORT
JANUARY - DECEMBER 2018**

*Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) 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're 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 we provide you with **Pure Abundant Water**.*

Board of Directors' meetings are held on the fourth Monday of every month at 6 pm unless otherwise published. They are held at 9080 County Road 64. All meetings are open to the public. A full schedule can be found at the Belforest Water System website: www.belforestwater.com.

BOARD OF DIRECTORS:
CHARLES DUBE, President
JAMES MCFALL, Vice President
DARYL CLEWORTH, Secretary
MACKIE GARRETT, Board Member
PATRICK HEITER, Board Member

- TABLE OF PRIMARY CONTAMINANTS -

At high levels, some primary contaminants pose a health risk to humans. This table provides a quick glance at any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Selenium (ppb)	50	ND	Epichlorohydrin	TT	ND
Total Coliform	<5%	ND	Thallium (ppb)	2	ND	Ethylbenzene (ppb)	700	ND
Turbidity	TT	ND	Organic Chemicals			Ethylene dibromide (ppt)	50	ND
Fecal Coliform & E. coli	0	ND	Acrylamide	TT	ND	Glyphosate (ppb)	700	ND
Radiological			Alachlor (ppb)	2	ND	Haloacetic Acides (ppb)	60	ND
Beta/Photon emitters (mrem/yr)	4	ND	Atrazine (ppb)	3	0.03	Heptachlor (ppt)	400	ND
Alpha emitters (pci/l)	15	ND	Benzene (ppb)	5	ND	Heptachlor epoxide (ppt)	200	ND
Combined radium (pci/l)	5	1.6	Benzo(a)pyrene(PHAs) (ppt)	200	ND	Hexachlorobenzene (ppb)	1	ND
Uranium (pci/l)	30	ND	Carbofuran (ppb)	40	ND	Hexachlorocyclopentadiene (ppb)	50	ND
Inorganic			Carbon Tetrachloride (ppb)	5	ND	Lindane (ppt)	200	ND
Antimony (ppb)	6	ND	Chlordane (ppb)	2	ND	Methoxychlor (ppb)	40	ND
Arsenic (ppb)	10	ND	Chlorobenzene (ppb)	100	ND	Oxamyl [Vydate] (ppb)	200	ND
Asbestos (MFL)	7	ND	2, 4-D	70	ND	Pentachloropheno1 (ppb)	1	ND
Barium (ppm)	2	0.14	Dalapon (ppb)	200	ND	Picloram (ppb)	500	ND
Beryllium (ppb)	4	ND	Dibromochloropropane (ppt)	200	ND	PCBs (ppt)	500	ND
Bromate (ppb)	10	ND	O-Dichlorobenzene (ppb)	600	ND	Simazine (ppb)	4	ND
Cadmium (ppb)	5	ND	p-Dichlorobenzene (ppb)	75	ND	Styrene (ppb)	100	ND
Chloramines (ppm)	4	ND	1,2-Dichloroethane (ppb)	5	ND	Tetrachloroethylene (ppb)	5	ND
Chlorine (ppb)	4	ND	1,1-Dichloroethylene (ppb)	7	ND	Toluene (ppm)	1	ND
Chlorine dioxide (ppb)	800	ND	Cis-1,2-Dichloroethylene (ppb)	70	ND	TOC	TT	ND
Chlorite (ppm)	1	ND	trans-1,2-Dichloroethylene (ppb)	100	ND	TTHM (ppb)	80	0.00
Chromium (ppb)	100	ND	Dichloromethane (ppb)	5	ND	Toxaphene (ppb)	3	ND
Copper (ppm)	AL=1.3	0.05	1,2-Dichloropropane (ppb)	5	ND	2,4,5-TP (Silvex) (ppb)	50	ND
Cyanide (ppb)	200	ND	Di-(2-ethylhexyl)adipate (ppb)	400	ND	1,2,4-Trichlorobenzene (ppb)	70	ND
Fluoride (ppm)	4	0.02	Di(2-ethylhexyl)phthalates (ppb)	6	0.05	1,1,1-Trichloroethane (ppb)	200	ND
Lead (ppb)	AL=15	ND	Dinoseb (ppb)	7	ND	1,1,2-Trichloroethane (ppb)	5	ND
Mercury (ppb)	2	ND	Dioxin[2,3,7,8-TCDD] (ppq)	30	ND	Trichloroethylene (ppb)	5	ND
Nitrate (ppm)	10	5.53	Diquat (ppb)	20	ND	Vinyl Chloride (ppb)	2	ND
Nitrite (ppm)	1	ND	Endothal (ppb)	100	ND	Xylenes (ppm)	10	ND
Total Nitrate & Nitrite	10	5.53	Endrin (ppb)	2	ND			

- TABLE OF SECONDARY & UNREGULATED CONTAMINANTS -

Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin and tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
SECONDARY								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	12.8	Iron	0.3	ND	Sulfate	70	0.445
Color (PCU)	15	15	Magnesium	75	3.66	Total Dissolved Solids	500	58
Copper	1	0.003	Odor (T.O.N.)	5	ND	Zinc	5	13.58
SPECIAL								
Calcium	N/A	6.03	pH (SU)	N/A	8.9	Temperature (°C)	N/A	ND
Carbon Dioxide	N/A	ND	Sodium	N/A	ND	Total Alkalinity	N/A	9.4
Manganese	0.05	17.5	Specific Conductance (umhos)	<500	110.6	Total Hardness (as CaCO3)	N/A	29.7
UNREGULATED								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2 - Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isopropylbenzene	N/A	ND
1,1 - Dichloroethane	N/A	ND	Bromodichloromethane	N/A	ND	M-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoform	N/A	ND	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolochlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4 - Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	ND	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	ND	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3 - Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	ND	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	ND	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethane	N/A	ND	Tert - Butylbenzene	N/A	ND

- TABLE OF DETECTED DRINKING WATER CONTAMINANTS -

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. 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.

CONTAMINANT	MCLG	MCL	RANGE	AMOUNT DETECTED	LIKELY SOURCE OF CONTAMINATION
Bacteriological Contaminants January - December 2016					
Total Coliform Bacteria	0.00	<5%		ND Present or Absent	Naturally present in environment
Turbidity	0.00	TT		ND NTU	Soil runoff
Fecal Coliform & E.Coli	0.00	0		ND Present or Absent	Human and animal fecal waste
Viruses, Giardia	0.00	TT		0 Present or Absent	Human and animal fecal waste
Legionella	0.00	TT		0 Present or Absent	Found naturally in water, multiples in heating systems
Radiological Contaminants January - December 2013					
Beta particle and photon	0.00	4		ND mrem/yr	Decay of natural and manmade deposits
Alpha emitters	0.00	15		3.75 pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0.00	5		1.6 pCi/L	Erosion of natural deposits
Uranium	0.00	30		ND pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2015-2018					
Barium	2.00	2	ND - 0.14	0.14 ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	ND - ND	ND ppm	Water additive used to control microbes
Copper	1.30	10 Sites AL=1.3	No. of Sites above action level:0	0.05 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	4.00	4	ND - 0.02	0.02 ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Lead	0.00	10 Sites AL=15	No. of Sites above action level: 0	ND ppb	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as N)	10.00	10	3.23 - 5.53	5.53 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as N)	1.00	1	ND - ND	ND ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrate & Nitrite	10.00	10	3.46 - 5.75	5.75 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Organic Contaminants January - December 2018					
Di(2-ethylhexyl)phthalates	0.00	6	0.03 - 0.05	0.05 ppb	Discharge from rubber and chemical factories
Haloacetic Acids (HAA5)	0.00	60	ND - ND	ND ppb	By-product of drinking water chlorination
Total trihalomethanes (TTHM)	0.00	80	ND - 2.8	2.8 ppb	By-product of drinking water chlorination
Secondary Contaminants January - December 2016					
Aluminum	N/A	0.2	ND - ND	ND ppm	Erosion of natural deposits or as a result of treatment with water additives
Chloride	N/A	250	ND - 12.8	12.8 ppm	Naturally occurring in the environment or as a result of agricultural runoff
Copper	N/A	1	ND - 0.00	0.00 ppm	Erosion of natural deposits; leaching from pipes
Magnesium	N/A	0.05	ND - 3.66	3.66 ppm	Erosion of natural deposits
Sulfate	N/A	250	ND - 0.45	0.45 ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	ND - 58.00	58.00 ppm	Erosion of natural deposits
Zinc	N/A	5	ND - 13.58	13.58 ppm	Erosion of natural deposits
Special Contaminants January - December 2016					
Calcium	N/A	N/A	ND - 6.03	6.03 ppm	Erosion of natural deposits
Manganese	N/A	N/A	ND - 17.50	17.50 ppm	Erosion of natural deposits
pH	N/A	N/A	ND - 8.90	8.90 SU	Naturally occurring in the environment or as a result of treatment with water additives
Specific Conductance	N/A	<500	ND - 110.60	110.60 umhos	Naturally occurring in the environment or as a result of treatment with water additives
Total Alkalinity	N/A	N/A	ND - 9.40	9.40 ppm	Erosion of natural deposits
Total Hardness (asCaCO3)	N/A	N/A	ND - 29.70	29.70 ppm	Naturally occurring in the environment or as a result of treatment with water additives

