

# ANNUAL DRINKING WATER QUALITY REPORT

## Le Moyne Water System, Inc.

January-December 2018

We're pleased to present you with our Annual Drinking Water Quality Report. The 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 and dependable supply of drinking water. We want you to understand the continual efforts made to protect our water resources and improve the water treatment process. Chlorine is added to the water as disinfectant and the required residual is maintained to protect your drinking water from any possible outside contaminants. We also use Soda Ash and Lime for Ph balance and Sodium Hexametaphosphate for sequestering of Lime. We are committed to ensuring the quality of your water. Our water source is groundwater wells in the Alluvial Coastal Aquifer. One well is located off Old Hwy 43. We have two additional wells on Creax Road. A Source Water Assessment Plan (SWAP) is available at our office. These plans are an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. I'm pleased to report that our drinking water is safe and meets federal and state requirements.

Please share your thoughts with us about the information in this report. After all, well informed customers are our best allies. For more information about this report, or for questions relating to your drinking water, please call Rob McDonald, Water Department Superintendent, at 251-675-1797. Please attend our meetings held on the second Monday of each month beginning at 4 p.m. at the office of the corporation, 11426 Old Hwy 43, Axis, AL.

### BOARD MEMBERS

 James Richardson, Jr., President

 JR Henley, Vice-President

 Frank Seltzer

 James Bryan

 Scott Crenshaw

Le Moyne Water System, Inc. routinely monitors for contaminants in your drinking water according to Federal and State laws. Unless otherwise stated, this table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2018. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

### PLAIN LANGUAGE DEFINITION

- *Not Required (NR)* – Laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
- *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.
- *Variances & Exemptions (V&E)* - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
- *Action Level – (AL)* the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Treatment Technique (TT)* - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Threshold Odor Number (T.O.N.)*- The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.
- *Maximum Contaminant Level* - (mandatory language) 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* - (mandatory language) 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 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.

### 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 run-off, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

## Table of Primary Contaminants

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	CONTAMINANT	MCL	AMOUNT DETECTED
<b>Bacteriological</b>								
Total Coliform Bacteria	< 5%	ND	Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Turbidity	TT	0.68	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
<b>Organic Chemicals</b>								
Fecal Coliform & E. coli	0	ND	Acrylamide	TT	ND	Ethylene dibromide(ppt)	50	ND
<b>Radiological</b>								
Beta/photon emitters (mrem/yr)	4	ND	Alachlor(ppb)	2	ND	Glyphosate(ppb)	700	ND
Alpha emitters (pci/l)	15	1.50	Atrazine(ppb)	3	ND	Haloacetic Acids(ppb)	60	ND
Combined radium (pci/l)	5	0.40	Benzene(ppb)	5	ND	Heptachlor(ppt)	400	ND
Uranium(pci/l)	30	ND	Benzo(a)pyrene[PHAs](ppt)	200	ND	Heptachlor epoxide(ppt)	200	ND
<b>Inorganic</b>								
Antimony (ppb)	6	ND	Carbofuran(ppb)	40	ND	Hexachlorobenzene(ppb)	1	ND
Arsenic (ppb)	10	ND	Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Asbestos (MFL)	7	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Barium (ppm)	2	0.02	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Beryllium (ppb)	4	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Bromate(ppb)	10	ND	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Cadmium (ppb)	5	ND	Dibromochloropropane(ppt)	200	ND	PCBs(ppt)	500	ND
Chloramines(ppm)	4	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Chlorine(ppm)	4	1.00	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chlorine dioxide(ppb)	800	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
Chlorite(ppm)	1	ND	1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Chromium (ppb)	100	ND	Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	ND
Copper (ppm)	AL=1.3	1.10	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	1.40
Cyanide (ppb)	200	ND	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Fluoride (ppm)	4	ND	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Lead (ppb)	AL=15	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Mercury (ppb)	2	ND	Di(2-ethylhexyl)phthlates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Nitrate (ppm)	10	ND	Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Nitrite (ppm)	1	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	ND
Total Nitrate & Nitrite	10	ND	Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
			Endothall(ppb)	100	ND	Xylenes(ppm)	10	ND
			Endrin(ppb)	2	ND			

## Table of Secondary and Unregulated Contaminants

**Secondary Drinking Water Standards** are guidelines regulating contaminants that may cause cosmetic effects (such as skin or 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 EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
<b>Secondary</b>								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	5.50	Iron	0.3	0.08	Sulfate	70	ND
Color (PCU)	15	7.90	Magnesium	75	0.87	Total Dissolved Solids	500	72
Copper	1	ND	Odor (T.O.N.)	5	ND	Zinc	5	ND
<b>Special</b>								
Calcium	N/A	18.00	pH (SU)	N/A	6.96	Temperature (*C)	N/A	ND
Carbon Dioxide	N/A	6.7	Sodium	N/A	26.00	Total Alkalinity	N/A	420
Manganese	0.05	0.04	Specific Conductance (umhos)	<500	ND	Total Hardness (as CaCO3)	N/A	55
<b>Unregulated</b>								
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	Metolachlor	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	0.65	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	0.60	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	0.59	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	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND

Table of Detected Drinking Water Contaminants								
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
<b>Bacteriological Contaminants January - December 2016</b>								
Total Coliform Bacteria	0	< 5%				ND	Present or Absent	Naturally present in the environment
Turbidity	0	TT				0.68	NTU	Soil runoff
Fecal Coliform & E. coli	0	0				ND	Present or Absent	Human and animal fecal waste
Viruses, Giardia	0	TT				0	Present or Absent	Human and animal fecal waste
Legionella	0	TT				0	Present or Absent	Found naturally in water, multiplies in heating systems
<b>Radiological Contaminants January - December 2016</b>								
Alpha emitters	0	15				1.50	pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0	5				0.40	pCi/L	Erosion of natural deposits
<b>Inorganic Contaminants January - December 2017</b>								
Barium (2014)	2	2	ND	-	0.02	0.02	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	0.60	-	1.00	1.00	ppm	Water additive used to control microbes
Copper (2017)	1.3	20 Sites AL=1.3	No. of Sites above action level 1			1.10	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2017)	0	20 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	10	ND	-	ND	ND	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrate & Nitrite	10	10	ND	-	ND	ND	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Organic Contaminants January - December 2016-2018</b>								
Epichlorohydrin	0	TT	ND	-	ND	ND	ppb	Discharge from industrial chemical factories; added to water during treatment process; an impurity of some water treatment chemicals
Haloacetic Acids (HAA5)	0	60	ND	-	ND	ND	ppb	By-product of drinking water chlorination
Total trihalomethanes (TTHM)	0	80	1.20	-	1.40	1.40	ppb	By-product of drinking water chlorination
Xylene (total)	10	10	ND	-	ND	ND	ppm	Discharge from petroleum factories; discharge from chemical factories
<b>Secondary Contaminants January - December 2016</b>								
Chloride	N/A	250	ND	-	5.50	5.50	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Color	N/A	15	ND	-	7.90	7.90	PCU	Naturally occurring in the environment or as a result of treatment with water additives
Iron	N/A	0.3	ND	-	0.08	0.08	ppm	Erosion of natural deposits
Magnesium	N/A	0.05	ND	-	0.87	0.87	ppm	Erosion of natural deposits
Total Dissolved Solids	N/A	500	ND	-	72.00	72.00	ppm	Erosion of natural deposits
<b>Special Contaminants January - December 2016</b>								
Calcium	N/A	N/A	ND	-	18.00	18.00	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	ND	-	6.70	6.70	ppm	Erosion of natural deposits
Manganese	N/A	N/A	ND	-	0.04	0.04	ppm	Erosion of natural deposits
pH	N/A	N/A	ND	-	6.96	6.96	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	N/A	N/A	ND	-	26.00	26.00	ppm	Naturally occurring in the environment
Total Alkalinity	N/A	N/A	ND	-	420.00	420.00	ppm	Erosion of natural deposits

## GENERAL INFORMATION

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

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, in some cases, radioactive material, and 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 immunocompromised, such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or individuals with other immune system disorders, some elderly, and infants, can be particularly at risk from infections. Those at risk should seek advice about drinking water from the health care providers. EPA/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).

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 (1-800-426-4791).

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. We are 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>.

**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 two 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.**

Based on a study conducted by the 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.

We at the Le Moyne Water System, Inc. work around the clock to provide top quality water to every tap. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden and properly dispose of household chemicals, paints and waste oil. 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.

**For more information contact:  
Rob McDonald – (251) 675-1797**

**Le Moyne Water System, Inc.  
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Axis, AL 36505**