

2018 WATER QUALITY REPORT

CONSUMER CONFIDENCE REPORT

Sampling Schedule Jan. 1 - Dec. 31, 2017



NORTH BALDWIN UTILITIES

NATURAL GAS | WATER | WASTEWATER

We are pleased to bring you this year's Annual Drinking Water Quality Report. 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. NBU 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 2017 Sampling Schedule beginning Jan. 1 through Dec. 31 of 2017 unless otherwise not-

ed. This report is designed to keep you informed about the quality of water and services we deliver to you every day. We want you to understand the efforts we make to improve treatment processes and protect our supply. We are committed to the quality of your drinking water. As in the past, your drinking water has been and remains safe to drink. Please take a few moments to look over this important report concerning your drinking water. We have tried to assemble a report that paints a brief but accurate picture of the quality of water you get every day from your tap. If you have any questions regarding this report, feel free to contact us at **(251) 580-1626**.

SECTION 1 - SOURCES OF WATER

NBU obtains its drinking water through the use of ten public water supply wells. Each well produces groundwater from sand units of the regional aquifer known as the Pliocene-Miocene Aquifer System.

In the Bay Minette area, the sands are identified as the Bay Minette Middle Aquifer supplying groundwater to Wells #2, #3, #4 and #5; and the Bay Minette Lower Aquifer supplying groundwater to Wells #5 and #6. Well #8 is supplied by a deep Miocene sand aquifer identified as the North Baldwin Rabun Aquifer. Well #9A and #9B is supplied by a Miocene Undifferentiated aquifer. Well #11 is supplied by a 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 aeration, chlorination, fluoridation and corrosion control prior to distribution. NBU implements and maintains a Source Water Assessment Program in compliance with the Alabama Department of Environmental Management. The Program is a pro-active measure taken by NBU to protect its sources of drinking water.

SECTION 2 - DEFINITIONS

This report contains many terms and abbreviations you may not be familiar with. The following is provided to help you better understand these terms.

- **Not Detected (ND):** Laboratory analysis indicates that the constituent is not present.
- **Parts per million (ppm)/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.
- **Maximum Contaminant Level Goal (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 (MCL):** Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Treatment Technique (TT):** Required process to reduce level of a contaminant in drinking water.
- **Nephelometric Turbidity Unit (NTU):** 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 a 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.

SECTIONS 3 & 4: Refer to tables on back.

SECTION 5 - ADDITIONAL INFO

A. Drinking Water Contaminants: Sources of drinking water (both tap and bottled) 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 can pick up substances resulting from the presence of animals or from human activities. All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man-made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. The presence of contaminants does not necessarily indicate that water poses a health risk. Get more info about contaminants and potential health effects by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

B. Contacts: NBU meets in the T.W. Mitchell Board Room at 25 Hand Avenue on the Wednesday before the last Friday of each month at 8:30 a.m.

Board Members and Contact Personnel:

- Board of Directors: Ben Bailey, Richard Gaines, James Robertson, Larry Taylor, Mayor Bob Wills
- General Manager / CEO Jason Padgett

C. Sourcewater/Vulnerability Assessment:

NBU is in regulatory compliance with respect to sourcewater and vulnerability assessments for each well. Documents associated with sourcewater and vulnerability assessments are housed at NBU's office.

Section D: As part of NBU's UCMR2 Assessment Monitoring, Wells #2, 3, 5, 6, 8 (Rabun), 9A, 9B & 10 were sampled for the presence of 1,3-dinitrobenzene, RDX (Hexahydro; 1,3,5-trinitro; 1,3,5-triazine), TNT (2,4,6-trinitrotoluene), HBB (2,2',4,4',5,5'-Hexabromobiphenyl), BDE-100 (2,2',4,4',6-Pentabromodiphenyl ether), BDE-153 (2,2',4,4',5,5'-Hexabromodiphenyl ether), BDE-47 (2,2',4,4'-Tetrabromodiphenyl ether), BDE-99 (2,2',4,4',5-Pentabromodiphenyl ether), Dimethoate and Terbufos-sulfone with all samples reported as being non detected for these compounds.

Section 3 - Table of Primary Contaminants 2018 (Covering 2017)

At high levels some primary contaminants are known to pose a health risks to humans. This provides a quick glance of any primary contaminant detections*.

CONTAMINANT	MCL	DETECTED*	CONTAMINANT	MCL	DETECTED
Bacteriological			Endrin	2	ND
Total Coliform Bacteria	< 5%	Absent to 1	Glyphosate	700	ND
Turbidity	TT	ND	Heptachlor (ppt)	400	ND
Radiological			Heptachlor epoxide (ppt)	200	ND
Beta/Photon emitters (mrem/yr)	4	0.6 to 2.13	Hexachlorobenzene (HCB)	1	ND
Gross Alpha (pci/l)	15	.372 to 1.77	Hexachloropentadiene	1	ND
Radium-228 (pci/l)	5	0.8 to 1.48	Lindane	200	ND
Inorganic			Methoxychlor	40	ND
Antimony (ppb)	6	ND	Oxamyl [Vydate]	200	ND
Arsenic (ppb)	50	ND	PCBs (ppt)	500	ND
Asbestos (MFL)	7	Waived	Pentachlorophenol	1	ND
Barium (ppm)	2	ND	Picloram	500	ND
Beryllium (ppb)	4	ND	Simazine	4	ND
Cadmium (ppb)	5	ND	Toxaphene	3	ND
Chromium (ppb)	100	ND to 0.4	Benzene	5	ND
Copper (ppm)	1.3	ND to 0.71	Carbon Tetrachloride	5	ND
Cyanide (ppb)	200	ND	Chlorobenzene	100	ND
Fluoride (ppm)	4	ND to 0.6	1,2-Dibromo-3-chloropropane (ppt)	200	ND
Lead (ppb)	15	ND to 0.009	o-Dichlorobenzene	600	ND
Mercury (ppb)	2	ND	p-Dichlorobenzene	75	ND
Nitrate as N (ppm)	10	ND to 1.1	1,2-Dichloroethane	5	ND
Nitrite (ppm)	1	ND	1,1-Dichloroethylene	7	ND
Selenium	50	ND	cis-1,2-Dichloroethylene	70	ND
Thallium	2	ND	trans-1,2-Dichloroethylene	100	ND
Organic Chemicals (ppb unless noted)			Methylene chloride	5	ND
2,4-D	70	ND	1,2-Dichloropropane	5	ND
2,4,5-TP (Silvex)	50	ND	Ethylbenzene	700	ND to 0.95
Alachlor (Lasso)	2	ND	Ethylene dibromide (EDB) (ppt)	50	ND
Atrazine	3	ND	Styrene	100	ND
Benzo(a)pyrene(PHAs) (ppt)	200	ND	Tetrachloroethylene	5	ND
Carbofuran	40	ND	1,2,4-Trichlorobenzene	70	ND
Chlordane	2	ND	1,1,1-Trichloroethane	200	ND
Dalapon	200	ND	1,1,2-Trichloroethane	5	ND
Di-(2-ethylhexyl)adipate	400	ND	Trichloroethylene	5	ND
Di(2-ethylhexyl)phthalates	6	ND	TTHM	80	ND to 27.4
Dinoseb	7	ND	Toluene	1	ND
Diquat	20	ND	Vinyl Chloride	2	ND
Dioxin[2,3,7,8-TCDD] (ppq)	30	Waived	Xylenes (ppm)	10	ND to 7.2
Endothall	100	ND			

*previous sampling cycle if not required this cycle; t=trillion; q=quadrillion; Waived = Statewide waiver; ND=Non-detect

Section 4 - Table of Detected Contaminants 2018 (Covering 2017)

Parameter	MCL	Results	Average	Units	Source	Date	Likely source of contamination	Listing
1,1-Dichloroethane	-	ND to 0.1	<0.1	ppb	Well 5	Jan & Jul '15	Intermediate in chemical synthesis	UCMR Assessment Monitoring
1,4-Dioxane	-	ND to 0.28	<0.21	ppb	Wells 2 & 5	Jan & Jul '15	Used as a solvent & laboratory reagent; traces found in shampoo, cosmetics & detergents	UCMR Assessment Monitoring
Bromodichloromethane	-	ND to 6.5	<2.35	ppb	TP 111	Oct-17	By-product of drinking water chlorination	UR
Bromoforn	-	ND to 8.0	<8.0	ppb	TP 111	Oct-17	By-product of drinking water chlorination	UR
Calcium	-	14.5	14.5	ppm	Dist TP 109	Nov-15	Naturally occurring	UR
Carbon dioxide, free	-	2 to 13	3.4	ppm	Dist TPs 102, 103 & 108	Mar-Jul '13	Naturally occurring	SDWS
Chlorate	-	ND to 63	<42	ppb	Well 5 & 8	Jul-15	Oxidizer-formerly used in pyrotechnics	UCMR Assessment Monitoring
Chloride	250	6 to 10	7.6	ppm	Dist TPs 102, 103, 105, 106 & 108	Mar-Jul '13	Naturally occurring	SDWS
Chloroform	-	ND to 3.5	<2.95	ppm	TP 108 & 111	Oct-17	By-product of drinking water chlorination	UR
Chromium	100	ND to 0.4	<0.27	ppb	Wells & DSMRTs 2, 3, 5, 6, 9 & Rabun	Jan & Jul '15	Discharge from steel and pulp mills; Erosion of natural deposits	UCMR Assessment Monitoring
Chromium-Hexavalent	-	ND to 0.36	0.21	ppb	Wells & DSMRTs 2, 3, 5, 6, 9 & Rabun	Jan & Jul '15	Textile dyes, wood preservation and stainless steel welding	UCMR Assessment Monitoring
Cobalt	-	ND to 1	<1	ppb	Well 9	Jul-15	Naturally occurring	UCMR Assessment Monitoring
Coliforms (Total)	≤5%	Absent - 1	<1	CFU or NPM/100 mL	Well #9 (raw) & Dist Samples	Jan, May, Nov '17	Human and animal fecal waste	PDWS
Color	15	15	15	color units	Tensaw Well	Sep-12	Naturally occurring	SDWS
Copper	1.3	ND to .71	<0.1035	ppm	C&L Dist. Sample Sites	Jun & Aug '17	Corrosion of household plumbing, naturally occurring; leaching from wood preservatives	PDWS
Cosmosily (Langier Index)	-	-0.94	-0.94	-	Dist TP 109	Nov-15	Naturally occurring	SDWS
Dibromochloromethane	-	ND to 9.4	<3.6	ppb	TP 111	Oct-17	By-product of drinking water chlorination	UR
Ethylbenzene	700	ND to 0.95	<0.95	ppb	TP 112	Oct-17	Discharge from petroleum refineries/chemical factories/gas station releases	PDWS
Fluoride	4	ND to 0.3	0.3	ppm	Dist TP 109	Nov-15	Naturally occurring	SDWS
Gross Alpha	15	0.77 to 1.77	0.654	pCi/l	Dist TP113 / Project 17E0077	Feb-May '14	Naturally occurring	PDWS
Hardness	-	38.5	38.5	ppm	Dist TP 109	Nov-15	Naturally occurring	UR
Iron	0.3	0.3	0.3	ppm	Tensaw Well	Sep-12	Naturally occurring	SDWS
Lead	15	ND to 0.009	<0.0052	ppb	C&L Dist. Sample Sites	Jun & Aug '17	Corrosion of household plumbing systems; naturally occurring	PDWS
Magnesium	-	0.55	0.55	ppm	Dist TP 109	Nov-15	Naturally occurring	UR
Monochloroacetic Acid (HAAs)	60	ND to 37	<37	ppb	Dist Site 1	Jul-13	By-product of drinking water chlorination	PDWS
MTBE	-	ND to 1.2	1.2	ppb	Well 5	Sep-11	Oxygenate added to gasoline to boost octane; No MCL, Advisory level of 20 ppb based on taste and smell threshold	UR
Nitrate as N	10	ND to 1.1	<0.56	ppm	Dist TPs 102, 103, 105, 106, 108 & 113	May & Oct '17	Runoff from fertilizer use; Leaching from septic tanks, sewage; Natural deposit erosion	PDWS
Orthophosphate	-	0.2	0.2	ppm	Wells 2, 3, 5 & 6	Nov-07	Water additive to control corrosion	UR
pH (standard units)	-	7.79	7.79	su	Dist TP 109	Nov-15	Naturally occurring	SDWS
Radium 228	5	0.8 to 1.48	0.837	pCi/l	TPs 102/103/105/106/111/113; Project 17E0077	May & Oct '17	Naturally occurring	PDWS
Sodium	-	1.56	1.56	ppm	Dist TP 109	Nov-15	Naturally occurring	SDWS
Specific Conductance	-	88	88	umhos/cm	Dist TP 109	Nov-15	Naturally occurring	SDWS
Strontium	-	ND to 170	23.97	ppb	Wells & DSMRTs 2, 3, 5, 6, 9 & Rabun	Jan & Jul '15	Cathode ray tube glass	UCMR Assessment Monitoring
Threshold Odor Number	3	ND to 1	<1	T.O.N.	Dist TP108	Mar-13	Naturally occurring	SDWS
Total Alkalinity	-	43	43	ppm	Dist TP 109	Nov-15	Naturally occurring	SDWS
Total Dissolved Solids	500	62	62	ppm	Dist TP 109	Nov-15	Naturally occurring	SDWS
Total Trihalomethanes	80	ND to 27.4	<8.775	ppb	Dist TP 108 & 111	Oct-17	By-product of drinking water chlorination	PDWS
Vanadium	-	ND to 0.4	0.35	ppb	Wells 2, 6, DSMRT Well 3	Jan & Jul '15	Manufacture of steel alloys; production of sulfuric acid	UCMR Assessment Monitoring
Xylenes (Total)	10	ND to 7.2	<5.8	ppm	Dist TP 108, 111 & 113	Oct-17	Discharge from petroleum refineries/chemical factories/gas station releases	PDWS
Zinc	5	ND to 0.29	0.06	ppm	Dist TP108	Mar-13	Corrosion of household plumbing systems; Erosion of natural deposits; Industry	SDWS

UR = unregulated; Dist = distribution; PDWS = Primary Drinking Water Standard; SDWS = Secondary Drinking Water Standard; TT = treatment technique

SECTION 6: EDUCATIONAL INFORMATION:

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. These people should seek advice about drinking water from their health care providers. EPA (Environmental Protection Agency)/CDC (Center of Disease Control) 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 drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

SECTION 7: LEAD NOTICE:

Every report shall contain the following lead-specific info: 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. NBU is responsible for providing high quality drinking water, but can't 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're concerned about lead in your water, you may wish to have your water tested. Info 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>.

SECTION 8: MONITORING NON-COMPLIANCE NOTICE

NBU is required to monitor drinking water for specific contaminants on a regular basis. The results of regular monitoring are an indicator whether your water meets health standards. If you have any questions, contact:

- James Dean, Wastewater / Water Treatment Supervisor
25 Hand Avenue; Bay Minette, Alabama 36507
(251) 580-1626 // jdean@nbuemail.com

Disinfection By-Products (64701 Highway 59): During January 2017, NBU did not monitor for disinfection by-products (DBP) from the required sample site of 64701 Highway 59. Upon being notified of the missed deadline, NBU did take the disinfection by-products samples and is pleased to say the monitoring result met the health standards.

Well #12 Chemical Monitoring: During the monitoring period of January - March 2017, NBU did not monitor for volatile organic chemical, synthetic organic chemical and radiological at Well #12 located at 13638 Trawick Road. Upon being notified of the missed deadline, NBU did take the volatile organic chemical, synthetic organic chemical and radiological samples and is pleased to say the monitoring results met the health standards.

Well #12 Gross Alpha Monitoring: During the monitoring period of July - September 2017, NBU did not monitor for gross alpha at Well #12 located at 13638 Trawick Road. Upon being notified of the missed deadline, NBU did take the gross alpha samples and is pleased to say the monitoring results met the health standards.

FREQUENTLY ASKED QUESTIONS:

Is my water safe to drink?

Your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected, Section 4 Table of Detected Contaminants. The EPA has determined that your water IS SAFE at these levels.

Do I need to take special precautions? Please refer to Section 6

What customers can do to protect our water supply?

There are several things you can do to help protect your water system's source of supply. Here are two: Properly dispose of all chemicals in accordance with the procedures outlined on their containers.

1. Properly dispose of all chemicals in accordance with the procedures outlined on their containers.
2. Be vigilant of our system's wells, water towers and hydrants. Report all suspicious activity at these facilities to the police.