

DUBOIS WATER UTILITIES 2017 WATER QUALITY REPORT

WATER SOURCE

In 2017, the source of the water distributed by Dubois Water Utilities Inc. was surface water from Patoka Reservoir treated by Patoka Lake Regional Water and Sewer District, and surface water from the Patoka River treated by Jasper Municipal Utilities. For more information about your drinking water, please call us at 812-678-5161 or 800-453-6972 and ask for Field - Superintendent Eric Smith. This annual water quality report shows the source of our water, lists the results of our tests, and contains important information about water and health issues. Dubois Water Utilities Inc. will notify you immediately if there is any reason for concern about our water. We are proud to show you that the water that we provide to you has surpassed EPA water quality standards. The water in our lines undergoes testing for over 80 contaminants according to governmental requirements. The testing results are listed in the enclosed testing tables. **As an end user of water you can help to protect sources of drinking water by increasing and promoting efforts to recycle materials and properly dispose of chemicals, used oils and petroleum products, batteries, and other household refuse.**

YOU CAN TAKE YOUR DRINKING WATER FOR GRANTED, BECAUSE WE DO NOT!

OVERVIEW

Dubois Water Utilities, Inc. has agreements to purchase water from two suppliers, Patoka Lake Regional Water and Sewer District and the City of Jasper Municipal Utilities. Both suppliers have sufficient capacity to meet the water needs of our entire system, and both suppliers follow the testing and reporting requirements of the National Primary Drinking Water Regulations (NPDWR) and IDEM. Dubois Water Utilities Inc. is also diligent in following regulations and performing tests of our system water as mandated by NPDWR, EPA, and IDEM. The 2017 tests included: Weekly microbiological tests which showed no positive result for Total Coliform; No detects for Synthetic Organic Contaminants or Radioactive Contaminants; Tests for Asbestos and Arsenic in 2010 were below the detection level. Asbestos "use" monitoring waiver through 2019.

Patoka Lake Regional Water and Sewer District and Jasper Municipal Utilities add fluoride to the water to prevent dental carries as a participant in the state dental fluoridation program. Since 1983 Patoka Lake Regional Water and Sewer District has used chloramines to disinfect your drinking water. Chlorinated water is the same as water disinfected with chlorine. However, kidney dialysis patients and aquarium or fishpond owners need to take special precautions when using chlorinated water. Kidney dialysis patients should consult your doctors for more information.

ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. 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 at 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 can pick up substances resulting from the presence of animals or 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. Cryptosporidium is typically found in surface water sources like Patoka Reservoir, but daily and weekly tests of the treated water by Patoka Regional Water and Sewer district have not found any in their treated water.
- *Inorganic contaminants*, such as salts and metals, which can be naturally occurring or result from urban storm runoff, and residential uses.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, storm water runoff, and residential use.
- *Organic chemical contaminants*, including synthetic and volatile organics, 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 that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. 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/CDC guidelines on appropriate means to lessen the risks of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

2017 Monitoring Results for Dubois Water Utilities, Inc.

CONSTITUENTS	Date Tested	Unit	MCL	MCLG	MRAA	Range	Violation	Major Sources
INORGANIC CONSTITUENTS:								
COPPER	2017	µg/L	1300 AL		260	90 th Percentile Value	No	Corrosion of household plumbing
LEAD	2017	µg/L	15 AL		1.5	90 th Percentile Value	No	Corrosion of household plumbing
<i>Lead & Copper - the number of samples above the AL is 0.</i>								
Asbestos	2010	Mfl	<.07	7.0	BDL	NA	No	Decay of water mains
<i>Tests for Asbestos and Arsenic - in 2010 were below the detection level (BDL). Asbestos "use" monitoring waiver through 2019.</i>								
DISINFECTION PROCESS BYPRODUCTS:								
Total Haloacetic Acids (4)	2017	Ppb	60	NA	15.8	5.0 to 29.8	No	Disinfection process byproduct
TTHM's (Total Trihalomethanes)	2017	Ppb	80.0	NA	54.5	26.2 to 99.0	No	Disinfection process byproduct
<i>TTHMs - Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.</i>								

UNREGULATED CONTAMINANTS

EPA is preparing regulations that will specify a Maximum Contaminant Level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use. At high exposure levels it can cause lung cancer. Radon was not detected in the treated surface water distributed by Patoka Lake Regional Water and Sewer District.

EXPLANATION OF THE WATER QUALITY DATA TABLE

This report is based upon test results provided to us from Patoka Regional Water and Sewer District and from Jasper Municipal Utilities, and from tests that were conducted upon samples taken by Dubois Water Utilities Inc. from our supply tanks and lines. Terms used in the Water Quality Table and in other parts of this report are defined here.

NPDWR - National Primary Drinking Water Regulations

IDEM - Indiana Department of Environmental Management

CDC - Center for Disease Control

EPA - Environmental Protection Agency

MCL - Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water as established by EPA. The MCL's are set as low to the MCLG's as is feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MRDL - Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water as established by EPA.

MRDLG - Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health.

AL - Action Level: The concentration of a contaminant which, if exceeded, trigger treatment or other requirement that a water system must follow.

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

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

MRAA - Maximum running annual average

KEY TO TABLE

BDL = Below Detectable Level **MFL** = Monofilaments per liter **NTU** = Nephelometric Turbidity Units

Ppm = parts per million, or milligrams per liter (mg/l) **Ppb** = parts per billion, or micrograms per liter (µg/l)

pCi/L = picocuries per liter (a measure of radioactivity) **VOC** = Volatile Organic Contaminants

Cryptosporidium	
Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested for it to cause disease, and may be passed through means other than drinking water.	

2017 Monitoring Results for Patoka Lake Regional Water & Sewer District

CONSTITUENTS	Date Tested	Unit	MCL	MCLG	MRAA	Range	Violation	Major Source
DISINFECTION PROCESS BYPRODUCTS:								
Total Haloacetic Acids (4)	2017	Ppb	60	NA	36.2	22 to 60.6	No	Disinfection process byproduct
TTHM'S (Total Trihalomethanes)	2017	Ppb	80.0	NA	37.3	20.5 to 58	No	Disinfection process byproduct
INORGANIC CONSTITUENTS:								
Fluoride	2017	Ppm	2.0	1.0	0.60		No	Water Additive to promote strong teeth & Erosion of natural deposits
Copper	2017	ug/L	1300 AL		240	90 th percentile value	No	Corrosion of household plumbing
Lead	2017	ug/L	15 AL		5.0	90 th percentile val	No	Corrosion of household plumbing
(For Lead & Copper the number of samples above AL is 0.)								
Sodium	2017	PPM	None	None	3	NA	No	Erosion of natural deposits
Atrazine	2017	Ppb	3.0	BDL	0.2	N/A		
Barium	2017	PPM	2	2	0.03	N/A	No	Erosion of natural deposits
EPA is preparing a regulation, which will specify a Maximum Contaminant level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use. At high exposure levels it can cause lung cancer. Radon was not detected in the treated finished water distributed by Patoka Lake Regional Water & Sewer District.								
Gross Alpha	2017	pCi/L	15	0	.99	N/A	No	Runoff from herbicide used on row crops
Radium 226	2016	pCi/L		0	0.14	N/A	No	Erosion of natural deposits
Radium 228	2017	pCi/L		0	0.61	N/A	No	Erosion of natural deposits
Combined Radium	2016	pCi/L	5	0	.97	N/A	No	Erosion of natural deposits
Turbidity	Daily	NTU	TT = .03	NA	.22	Highest reading	No	
Turbidity does not present any risk to your health. Turbidity is a measure of suspended matter in water, and is a good indicator that the filtration system is functioning.								
TOTAL ORGANIC CARBON:								
Average percent of removal		%	25%	100	26.6%	19.25% to 36%	No	Erosion of natural deposits
UNREGULATED CONTAMINANTS								
CONSTITUENTS	Date Tested	Unit	MRDL	MRDLG	MRAA	Range	Violation	Major Sources
Chloramine	Daily	Ppm	4.0	4.0	3.4	4.0 – 1.0	No	Added for disinfectant

2017 Monitoring Results for Jasper Municipal Water Utility

SUBSTANCE (Unit of Measure)	Test Date	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Violation	Typical Source
Asbestos (mfl)	2017	7.0	7.0	0.40		No	Decay of Asbestos Cement Water Mains, Erosion of Natural Deposits
Atrazine (ppb)	2017	3	3	0.40	0 – 0.40	No	Runoff from herbicide used on row crops
Barium (ppm)	2017	2	2	0.0256	0.0256 – 0.0256	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2017	[4]	[4]	1.0	0.31 – 1.91	No	Water additive used to control microbes
Fluoride (ppm)	2017	4	4	0.9	0.9 -0.9	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories
Haloacetic Acids [HAA] (ppb)	2017	60	NA	58.3	1.6 – 58.3	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	0.68	0.68 – 0.68	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Sodium (ppm)	2017	None	None	4.81	NA	No	Road salt, septic tanks, sewage, & natural deposits
TTHMs (ppb) [Total Trihalomethanes]	2017	80	NA	96	19.6 - 96	No	By-product of drinking water disinfection
Total Organic Carbon (removal ratio)	2017	TT	NA	1.81	1.00 – 2.66	No	Naturally present in the environment
Turbidity (NTU)	2017	TT	NA	0.22	0.09 – 0.22	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)				TT = 100.00% of the samples meet the limit			
Tap water samples were collected for lead and copper analyses from sample sites throughout the community							
SUBSTANCE (Unit of Measure)	Test Date	AL	MCLG	Amount Detected (90 th Percentile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2017	1.3	1.3	0.102	0 / 30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	0.2	1 / 30	No	Corrosion of household plumbing systems; Erosion of natural deposits
LT2 MONITORING FOR CRYPTOSPORIDIUM: TEST RESULTS [oocysts/L]							
Maximum 0.93					MAJOR SOURCES Microbial parasite which is found in surface water		