

Annual Drinking Water Quality Report 2017
Jefferson Utilities, Inc.
Walnut Grove PWSID 3301942
270 Industrial Blvd
Kearneysville, WV 25430
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Why am I receiving this report?

In compliance with the Safe Drinking Water Act Amendments, **Walnut Grove Water System** is providing its customers with this annual water quality report. This report explains where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The information in this report shows the results of our monitoring for the period of January 1st to December 31st, 2017 or earlier if not on a yearly schedule.

If you have any questions concerning this report, you may contact **Jeff Pippel at 304-728-2077**.

Where does my water come from?

Your drinking water source is **ground** water from several wells. TP 01 (Walnut Grove), TP 02 (Ambrose) TP 03 (Meadowbrook), TP 04 (Bardane), TP 05 (Burr), TP 06 (Shenandoah Jct.), TP 07 (Woodland)

Source Water Assessment

The wells that supply drinking water to the **Walnut Grove Water System** have a higher susceptibility to contamination due to the sensitive nature of the aquifer in which the drinking water wells are located and the existing potential contaminant sources identified within the area. This does not mean that the well field will become contaminated; only that conditions are such that the ground water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

Why must water be treated?

All drinking water contains various amounts and kinds of contaminants. Federal and state regulations establish limits, controls, and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

Contaminants in Water

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits of contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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). The source of drinking water (both tap and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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.

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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, 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 runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring, or the result of oil and gas production and mining activities.

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 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 risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water Quality Data Table

Definitions of terms and abbreviations used in the table or report:

- **MCLG - Maximum Contaminant Level Goal**, or 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.
- **MCL - Maximum Contaminant Level**, or 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 technique.
- **MRDLG - Maximum Residual Disinfectant Level Goal**, or the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect benefits of use of disinfectants to control microbial contaminants.
- **MRDL - Maximum Residual Disinfectant Level**, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.

Abbreviations that may be found in the table:

- **pCi/l** – picocuries per liter
- **ppm** - parts per million or milligrams per liter
- **ppb** - parts per billion or micrograms per liter
- **NA** – not applicable
- **TP** – Treatment Plant

The **Walnut Grove Water System** routinely monitors for contaminants in your drinking water according to federal and state laws. The table below shows the results of our monitoring for contaminants.

Table of Test Results - Regulated Contaminants – Walnut Grove Water System

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Disinfectants & Disinfectant By- Products						
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)						
TTHMs (Total Trihalomethanes) TP 05	N	10.17 Annual avg. Range 4.11 – 14.4	ppb	NA	80	By-product of drinking water disinfection
HAA5s (Halo Acetic Acids) TP 01 TP 05	N N	15.8 Annual avg. Range 2.65 – 25	ppb ppb	NA NA	60 60	By-product of drinking water chlorination
Chlorine	N	2.1 Annual avg. Range 0.7-3.5	ppm	4	4	Water additive used to control microbes
Inorganic Contaminants						
Nitrate TP 01 (Walnut Grove) TP 02 (Ambrose) TP 03 (Meadowbrook) TP 04 (Bardane) TP 05 (Burr) TP 06 (Shenandoah Jct.) TP 07 (Woodland)	N N N N N N N	7.8 7.2 3.11 5.03 4.08 5.84 4.24	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium TP02 TP 05	N	0.054 0.069	ppm	2	2	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium TP02 TP 05	N	1.7 1.5	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride TP02 TP 05	N	0/65 0.50	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Unregulated Contaminants						
Nickel TP 02 TP 05	N N	4.0 5.5	ppb	100	100	Erosion of natural deposits

Sodium TP 02 TP 05	N N	15 17	ppm	NE	20	Erosion of natural deposits
Volatile Organic Contaminants						
Trichloroethylene TP 02 TP0	N	3.0 3.6	ppb	0	5	Discharge from metal degreasing sites and other factories

For the reporting year 2017 we received several “Notice of Violation” letters from the WV Bureau for Public Health for failing to monitor or complete on time the taking of sufficient samples for chlorine samples associated with a bacteriological sample (9-1/9-30-17), haloacetic acids and total trihalomethanes (1-1/12-31-2017), chlorine (5-1/6-30-2017), nitrates (7-1/9-30-2017), turbidity (5-1/5-31, 8-1/9-30 -2017). We have made every effort and taken every precaution to return to compliance.

Chlorine can be solid, liquid, or a gas additive used for the control microbes in drinking water. Drinking water that has not been treated with chlorine or some other form of disinfectant or process may or may not contain harmful bacteria. Untreated drinking water may cause gastrointestinal distress or other health problems.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or nervous system, and may have an increased risk of getting cancer.

Infants below six months who drink water containing nitrate/nitrite in excess of the maximum contaminant level (MCL) could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Additional Information

All other water test results for the reporting year 2017 were all non-detects.

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. **Walnut Grove 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 drinking 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> .

This report will not be mailed. It is available on line at www.juiwater.net/ccr.html or a copy will be provided to you upon request at our office during regular business hours.