

PFAS and Private Well Owners: What You Need to Know



What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are human-made chemicals containing carbon and fluorine that are found in groundwater and surface water throughout the world. The two most prominent PFAS (known as PFOA and PFOS) are no longer made in the United States, but remain in the environment.

PFAS are useful because they are water-repellent and stain- and heat-resistant. These characteristics make them ideal for stain- and water-repellent fabrics, food packaging, and non-stick cookware. PFAS are also surfactants, which make them useful for polishes, waxes, paints, cleaning products, and fire-fighting foams. PFAS are very stable—they last a long time in the environment and in the human body. There is evidence that exposure to some PFAS can be harmful to human health.

PFAS have been the recent focus of scientists, health organizations, and environmental protection agencies worldwide. Many of these groups have issued health-protective drinking water concentration criteria for PFAS. The criteria differ by locale but are generally considered to be stringent and protective of drinking water.

If you own a drinking water well, you should be aware of the potential for PFAS in groundwater. However, you should be assured that a detection of PFAS does not necessarily lead to adverse health effects, and there are things you can do to protect your water supply from PFAS.

How do I test my well for PFAS?

As a private well owner, you want to know your water is safe for your family. It is your responsibility to sample and test for many types of contaminants in accordance with local health guidelines.


NGWA has guidance documents and resources available to help you learn more: www.ngwa.org/what-is-groundwater/groundwater-issues/Groundwater-and-PFAS.

Many recommendations exist for sampling and testing PFAS. The U.S. Environmental Protection Agency (EPA) has summarized some of its recommendations on its website: www.epa.gov/pfas/us-state-resources-about-pfas. Your county or town health departments may also have information on PFAS sampling and locating a laboratory that is certified to test water for PFAS.

Testing for PFAS is one of many reasons to sample your water. It is a relatively simple process, but you must be sure to collect clean water samples. Let the tap run for about 10 minutes before you collect the water and always use laboratory-provided, PFAS-free containers. If you can, compare tap water with water sampled directly from your well borehole. NGWA has a water testing and treatment fact sheet

www.ngwa.org/docs/default-source/default-document-library/groundwater/water-testing-and-treatment.pdf?sfvrsn=bd5616c_2

The most efficient and reliable PFAS sampling option is to obtain a kit from a PFAS-



certified laboratory. The test kits come with easy-to-follow instructions and you get results quickly. Prices for a test kit and results report vary but can be upwards of \$400. If sampling directly from your well, make a note of the depth to water when you collect your sample.

What do my PFAS test results mean?

You've got your PFAS test results back from the lab; now what do they mean? PFAS are measured in "ng/L": These are nanograms per liter, a very small number. Sometimes ng/L are called parts per trillion or ppt. One ng/L is like one drop of water in 13 million gallons of water. Your PFAS test report will also have numbers that are used to explain the smallest amounts that the lab can measure: detection limit (DL), limit of detection (LOD), or limit of quantification (LOQ). "Labeled standards" or "surrogates" will also be reported. These PFAS are added so the lab instruments have something to compare your water to; they are not your water well test results.

How many ng/L are safe? The answer is, we really don't know! That's why different states have different recommendations, and some are different from the EPA's current health advisory level of 70 ng/L for two PFAS: PFOA and PFOS combined.

No one can say for sure if drinking well water that has PFAS in it will harm you, but we do know that touching the water is not harmful. Even if your water has PFAS in it, you can bathe, do your dishes, and wash your clothes without PFAS getting inside your body.

How can I remove PFAS from my water?

There are simple, proven technologies for effectively removing PFAS from your home's water supply. You can choose a solution for treating all the water entering your home (point-of-entry treatment, POET), or simply

treating drinking and cooking water (point-of-use treatment, POUT).

Water treatment technologies have been around for years, and include activated carbon, anion exchange resins, and reverse osmosis membranes. You may already have a treatment system in place for other water conditioning that can address PFAS with a different maintenance schedule.

Water treatment systems come in all shapes and sizes, but the most important part of your decision is looking for third-party product certification. That certification provides a level of confidence that your purchase will provide the water quality protection you're looking for.

Third-party product certifiers will test to NSF/ANSI 53 or NSF/ANSI 58 for PFAS, PFOA, and PFOS reduction. Look for those classes of certification on the products you're researching.

Always rely on certified water treatment professionals for application, installation, and maintenance of your treatment system. This is an affordable level of protection required to assure your treatment system works flawlessly.

Your treatment system will need regular maintenance, so remember to ask your service provider for details.

Where can I get more information?

More PFAS information is available on your state and county websites, as well as from EPA and NGWA, at www.epa.gov/pfas and www.ngwa.org/what-is-groundwater/groundwater-issues/Groundwater-and-PFAS

As a private well owner, you are managing your own water. Groundwater is an inherently safe water supply that is under your control!