

Botetourt County has a moderate risk profile. Radon is detected in ~100% of wells, driven by geological sources. Contamination is often invisible — testing is the only way to confirm your well's safety.

N/A

HOUSEHOLDS ON PRIVATE WELLS

Varies

PRIMARY AQUIFER TYPE

MODERATE

OVERALL RISK LEVEL

YOUR TOP WATER QUALITY RISKS

CONTAMINANT	HOW COMMON	RISK LEVEL	SOURCE & CONTEXT
Radont	~100% of wells	Advisory	Geological — Radioactive gas dissolved from uranium-bearing rock
Manganese*	~11% above aesthetic limit	Moderate	Geological — Found in reducing aquifer zones alongside iron
Arsenic	~100% of wells	Low–Moderate	Geological — Naturally dissolves from bedrock and glacial sediment
Sulfate*	~100% of wells	Low–Moderate	Geological — Natural dissolution from gypsum and sulfate minerals
Iron*	~90% of wells	Low–Moderate	Geological — Common in glacial and alluvial aquifers; staining and taste

* Secondary standard — an aesthetic limit for taste, odor, or staining. Not a health-based EPA limit.

† No finalized EPA primary MCL. Figure shows detection frequency, not regulatory exceedance.

WHAT TO DO NEXT

- Order a water test.**
Test for Radon, Manganese, Arsenic, Sulfate, coliform bacteria. Bacteria annually; others every 3–5 years.
- Get your free county report.**
See full data, treatment options, and certified labs at <https://yourwaterreport.com/states/va/botetourt-county/>
- Upload your lab results.**
We'll interpret them, flag anything above limits, and recommend next steps — free.

KNOW YOUR WELL

Well age / year drilled

Last water test date

Treatment systems installed

Well driller / service contact

WHAT YOUR RESULTS MEAN

Use this to interpret your lab report — match the contaminant to your result.

IF YOUR TEST SHOWS	WHAT IT MEANS	CONSIDER
Bacteria detected	Immediate concern	Shock chlorination; add UV system
Radon > 4,000 pCi/L	EPA proposed limit; also affects indoor air	Aeration system; test indoor air
Manganese > 0.05 mg/L	Aesthetic + health concern at high levels	Oxidation + filtration system
Arsenic > 10 µg/L	EPA limit exceeded — chronic cancer risk	Reverse osmosis or activated alumina filter
Iron > 0.3 mg/L	Staining, taste — aesthetic issue	Oxidizing iron filter

WHO SHOULD USE THIS

- Homeowners on private wells — not covered by public water testing
- Home buyers doing due diligence before closing
- Families with infants, elderly, or immunocompromised members
- Anyone who hasn't tested their well in the past 3 years

LOCAL RESOURCES

Full county report
<https://yourwaterreport.com/states/va/botetourt-county/>

Free personalized well water report at
<https://yourwaterreport.com/states/va/botetourt-county/>

Data: EPA ECHO · USGS NWIS · Water Quality Portal · U.S. Census ACS
For informational purposes only. Contact a licensed professional for testing and treatment.