

Essex County has an elevated risk profile. Iron is the primary concern, 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

**ELEVATED**  
OVERALL  
RISK LEVEL

**YOUR TOP WATER QUALITY RISKS**

CONTAMINANT	HOW COMMON	RISK LEVEL	SOURCE & CONTEXT
<b>Iron*</b>	~54% above aesthetic limit	Moderate	<b>Geological</b> — Common in glacial and alluvial aquifers; staining and taste
<b>Manganese*</b>	~47% above aesthetic limit	Moderate	<b>Geological</b> — Found in reducing aquifer zones alongside iron
<b>Radon†</b>	~100% of wells	Advisory	<b>Geological</b> — Radioactive gas dissolved from uranium-bearing rock
<b>Chloride*</b>	~30% above aesthetic limit	Moderate	<b>Road/Geological</b> — Road salt application and natural mineral deposits
<b>Sulfate*</b>	~16% above aesthetic limit	Moderate	<b>Geological</b> — Natural dissolution from gypsum and sulfate minerals

\* 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 Iron, Manganese, Radon, Chloride, 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/essex-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

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Last water test date

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Treatment systems installed

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Well driller / service contact

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**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
<b>Bacteria detected</b>	<b>Immediate concern</b>	Shock chlorination; add UV system
<b>Iron &gt; 0.3 mg/L</b>	<b>Staining, taste — aesthetic issue</b>	Oxidizing iron filter
<b>Manganese &gt; 0.05 mg/L</b>	<b>Aesthetic + health concern at high levels</b>	Oxidation + filtration system
<b>Radon &gt; 4,000 pCi/L</b>	<b>EPA proposed limit; also affects indoor air</b>	Aeration system; test indoor air

**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/essex-county/>

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