

# Active Radon Test Results

Xpert Home Inspections 116 Saralee Drive, Huntsville, Alabama 35811 256-337-0877  
Alabama State License Number HI-4002

## Radon Test Information

An Active Radon Testing Device : **Safety Siren™ Pro Series 3 - Radon Gas Detector** Was placed in:

**116 River Run Lane Madison, AL. 35756**

This test was conducted over 72 hours ending: October 13<sup>th</sup> @ 01:00 pm

This Device was Calibrated on January 2, 2017

**Your Average Radon Test Result is 2.3 pCi/l**

### Interpreting your Test Result

The Environmental Protection Agency, EPA, recommends you install a system to reduce radon gas in your home if the level of gas is **4 Pico curies of radon per liter (pCi/L)** or higher. You do not need to conduct a radon mitigation firm at this time. However if you make any structural changes or start to use a lower level of the building more frequently you should test again.

Radon is a radioactive gas. It comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Your home traps radon inside, where it can build up. Any home may have a radon problem. This means new and old homes, well-sealed and drafty homes, and homes with or without basements.

Radon from soil gas is the main cause of radon problems. Sometimes radon enters the home through well water. In a small number of homes, the building materials can give off radon, too. However, building materials rarely cause radon problems by themselves.

Radon can get in a home via cracks in solid floors, construction joints, cracks in walls, gaps in suspended floors, gaps around service pipes, cavities inside walls, and water supply.

Nearly 1 out of every 15 homes in the U.S. is estimated to have elevated radon levels. Elevated levels of radon gas have been found in homes in your state. Contact your state radon office for general information about radon in your area. While radon problems may be more common in some areas, any home may have a problem. The only way to know about your home is to test.

<http://www.epa.gov/radon/pdfs/citizensguide.pdf>



**Zone 1** counties have a predicted average indoor radon screening level greater than 4 pCi/L (pico curies per liter) **(red zones)**

**Zone 2** counties have a predicted average indoor radon screening level between 2 and 4 pCi/L **(orange zones)**

**Zone 3** counties have a predicted average indoor radon screening level less than 2 pCi/L **(yellow zones)**

Q: What to do if you have a high reading

A: If the test shows an average level of 4.0 pico liters in the atmosphere or more and some mitigation is recommended. The EPA recommends action with tests over 4.0. But, does not recommend action at 3.9. I have seen tests vary from 0.3 to 33.0 in this area. EVERY mitigation I am aware of has been highly successful.

Radon gas is a odorless, colorless gas that oozes up out of the ground where there is uranium in the rocks and we have a small but detectable degree of radon released throughout the valley that is embedded inside the limestone rock that are prevalent near the river...the next county over is Limestone County. **So what do you do, how do you mitigate it and will the mitigation be successful?** All good questions. First, I do not do mitigation or any repairs on homes I inspect. Doing so would be an ethical violation but I am well versed in the process and will try to explain it quickly.

Radon has a life of only a few short days (3.8 days or 91 hours, so about as quick as it is formed, it dissipates and is blown away. But, the uranium that is still in the ground (maybe hundreds of feet below) will continue to produce Radon so more comes back. After its short life, it become Polonium but has to be ingested to cause damages. When radon seeps up under a home, it can stagnate and then enter through the small holes in the floors and it enters the home. During the test, that is what we were looking for and we found 25% more of it than the EPA says is safe...where they came up with that number nobody knows, it was an arbitrary number they adopted. Mitigation involves plugging the holes in the floor, covering the crawlspace with a SEALED moisture barrier and providing a method to vent the barrier out and away from the foundation. It is a simple process and takes about a day to make the repairs and a small fan will be positioned at one or more vents to pull the trapped radon out and away from the foundation. According to the EPA a properly mitigated area will stop 99% of all Radon.

As a home inspector, myself as well as all inspectors i know, view homes that have been treated for high radon levels as BETTER and usually have lower radon levels that those that have not been mitigated and we see them as a positive thing. Expect the cost of mitigation to be \$1200 to \$1400.

You can read all about the process here...<http://www.epa.gov/radon/pdfs/citizensguide.pdf>

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