ELLIOTT
HOME SERVICES
812-606-7549

NORAD™
RADON DETECTION SYSTEM

Indoor Air Radon Test Report

Analytical Services Provided by Envirolabs Incorporated

AARST- NRPP Accredited Laboratory 101147 AL

TEST PERFORMED FOR:	_____	**REPORT DATE:**	November 30, 2020
TEST SITE:	_____	**TEST DEVICE:**	Norad
TEST LOCATION:	First Floor Family Room	**AARST-NRPP DEVICE CODE:**	_____
TEST PERFORMED BY:	_____	**TEST DEVICE S/N:**	_____
INSPECTION COMPANY:	Elliott Environmental Home Services LLC	**CALIBRATION DATE:**	May 04, 2020
		CALIBRATION EXPIRES:	May 04, 2021
TESTER ID:	_____	**TEST ID:**	_____

The USEPA recommends action be taken to reduce radon concentrations if test results are at or exceed the USEPA Action Level. The attached sheet, "About Your Radon Test Results" provides additional information regarding the interpretation of these test results. The following data are the result of a short-term screening test and are representative of the levels measured during the test period only. Radon levels may change from room to room, day to day and season to season.

RESULTS: The average radon level measured is at or excedes the US EPA Action Level of 4.0 pCi/l.

TEST SUMMARY:

AVERAGE RADON CONCENTRATION (pCi/l):	19.9
AVERAGE TEMPERATURE (°F):	73.0
AVERAGE BAROMETRIC PRESSURE (inHg):	29.2
HUMIDITY (%):	31
TEST START DATE:	11/24/2020
TEST START TIME:	17:12:39
TEST END DATE:	11/29/2020
TEST END TIME:	15:12:39
TEST DURATION:	118 h.

COMMENTS OR OBSERVATIONS CONCERNING CONDITIONS AT BEGINNING OF TEST:
Monroe County, No Mitigation System, Screening

COMMENTS OR OBSERVATIONS CONCERNING CONDITIONS AT CONCLUSION OF TEST:

This test has been performed in accordance with EPA testing protocols, which include the requirement to maintain "Closed Building Conditions." If the home is occupied during the test, the tester has notified the occupants of the home or a seller's representative of these requirements and requested their cooperation. While certain procedures, precautions and quality controls have been taken to ensure that these and other conditions for the test have been met, EnviroLabs Incorporated cannot guarantee the absence of circumstances beyond its control which may have affected the outcome of the test. If you have any questions regarding this test or have concerns about radon, please call EnviroLabs Incorporated at (301) 468-6666.

TEST ID: _____

HOURLY RESULTS

	DATE	TIME	Radon (pCi/L)	Temp. (ºF)	Humidity (%H)	Pressure (inMg)
1	11/24/2020	18:12:39	29.2	75.2	30	29.2
2	11/24/2020	19:13:24	9.6	75.2	30	29.2
3	11/24/2020	20:13:24	12.1	75.2	30	29.2
4	11/24/2020	21:13:26	19.5	75.2	30	29.2
5	11/24/2020	22:13:30	19.8	75.2	30	29.1
6	11/24/2020	23:13:29	25.5	75.2	29	29.2
7	11/25/2020	00:13:27	27.7	75.2	29	29.2
8	11/25/2020	01:13:27	19.8	75.2	30	29.1
9	11/25/2020	02:13:23	13.1	75.2	29	29.1
10	11/25/2020	03:13:18	9.9	75.2	29	29.1
11	11/25/2020	04:13:14	6.6	73.4	29	29.1
12	11/25/2020	05:13:28	13.1	75.2	30	29.1
13	11/25/2020	06:13:27	15.3	73.4	30	29.1
14	11/25/2020	07:13:24	17.1	75.2	30	29.1
15	11/25/2020	08:13:15	17.8	73.4	30	29.1
16	11/25/2020	09:13:21	17.8	73.4	30	29.1
17	11/25/2020	10:13:12	15.3	73.4	30	29.0
18	11/25/2020	11:13:18	16.3	73.4	30	29.0
19	11/25/2020	12:13:07	24.3	73.4	31	29.0
20	11/25/2020	13:13:12	20.7	73.4	34	29.0
21	11/25/2020	14:13:19	15.3	73.4	34	28.9
22	11/25/2020	15:13:06	12.9	73.4	33	28.9
23	11/25/2020	16:13:14	19.1	73.4	32	28.9
24	11/25/2020	17:13:07	20.8	73.4	32	28.9
25	11/25/2020	18:13:14	32.4	73.4	32	28.9
26	11/25/2020	19:13:03	23.3	73.4	32	28.9
27	11/25/2020	20:13:12	26.0	73.4	31	29.0
28	11/25/2020	21:13:02	24.0	73.4	31	29.0
29	11/25/2020	22:13:06	18.8	73.4	32	29.0
30	11/25/2020	23:13:12	22.8	73.4	32	29.1
31	11/26/2020	00:13:08	30.5	73.4	31	29.1
32	11/26/2020	01:13:05	16.6	73.4	32	29.1
33	11/26/2020	02:13:14	23.0	73.4	31	29.1
34	11/26/2020	03:13:07	18.3	73.4	32	29.2
35	11/26/2020	04:12:58	18.3	73.4	31	29.1
36	11/26/2020	05:13:08	28.0	73.4	31	29.1
37	11/26/2020	06:13:01	27.0	73.4	31	29.2
38	11/26/2020	07:13:10	20.3	73.4	32	29.2
39	11/26/2020	08:12:57	21.8	73.4	32	29.2

40	11/26/2020	09:13:03	22.0	73.4	32	29.2
41	11/26/2020	10:12:53	19.1	73.4	32	29.3
42	11/26/2020	11:13:02	22.3	73.4	31	29.2
43	11/26/2020	12:12:52	27.5	73.4	31	29.3
44	11/26/2020	13:13:00	22.8	73.4	30	29.3
45	11/26/2020	14:13:06	28.5	73.4	31	29.2
46	11/26/2020	15:12:57	26.7	73.4	31	29.3
47	11/26/2020	16:13:01	16.3	73.4	30	29.2
48	11/26/2020	17:12:55	17.6	73.4	31	29.2
49	11/26/2020	18:13:03	29.0	75.2	32	29.3
50	11/26/2020	19:13:04	31.5	75.2	33	29.3
51	11/26/2020	20:13:04	20.7	75.2	33	29.3
52	11/26/2020	21:13:03	20.7	75.2	32	29.3
53	11/26/2020	22:13:04	32.2	75.2	32	29.3
54	11/26/2020	23:13:07	32.7	75.2	31	29.3
55	11/27/2020	00:13:12	29.7	75.2	31	29.2
56	11/27/2020	01:13:02	23.5	75.2	32	29.2
57	11/27/2020	02:13:03	22.8	75.2	31	29.3
58	11/27/2020	03:13:00	23.3	75.2	30	29.3
59	11/27/2020	04:12:55	15.3	75.2	31	29.3
60	11/27/2020	05:12:52	7.4	75.2	31	29.3
61	11/27/2020	06:13:05	2.9	75.2	31	29.3
62	11/27/2020	07:13:03	7.1	73.4	32	29.3
63	11/27/2020	08:13:02	8.9	73.4	32	29.3
64	11/27/2020	09:12:53	8.1	73.4	32	29.3
65	11/27/2020	10:12:44	12.4	73.4	31	29.3
66	11/27/2020	11:12:49	31.7	73.4	32	29.3
67	11/27/2020	12:12:54	23.0	73.4	34	29.3
68	11/27/2020	13:12:50	34.9	73.4	34	29.2
69	11/27/2020	14:12:42	20.7	73.4	34	29.2
70	11/27/2020	15:12:50	20.7	73.4	33	29.3
71	11/27/2020	16:12:43	36.4	73.4	32	29.2
72	11/27/2020	17:12:50	38.4	71.6	32	29.2
73	11/27/2020	18:12:39	34.4	71.6	32	29.3
74	11/27/2020	19:12:40	31.7	71.6	32	29.3
75	11/27/2020	20:12:38	31.2	71.6	32	29.3
76	11/27/2020	21:12:37	23.0	71.6	32	29.3
77	11/27/2020	22:12:36	34.9	71.6	32	29.3
78	11/27/2020	23:12:31	31.5	71.6	31	29.3
79	11/28/2020	00:12:28	20.8	71.6	31	29.3
80	11/28/2020	01:12:36	12.4	71.6	31	29.4
81	11/28/2020	02:12:31	12.6	71.6	31	29.3
82	11/28/2020	03:12:28	13.3	71.6	31	29.4
83	11/28/2020	04:12:35	16.6	71.6	30	29.3

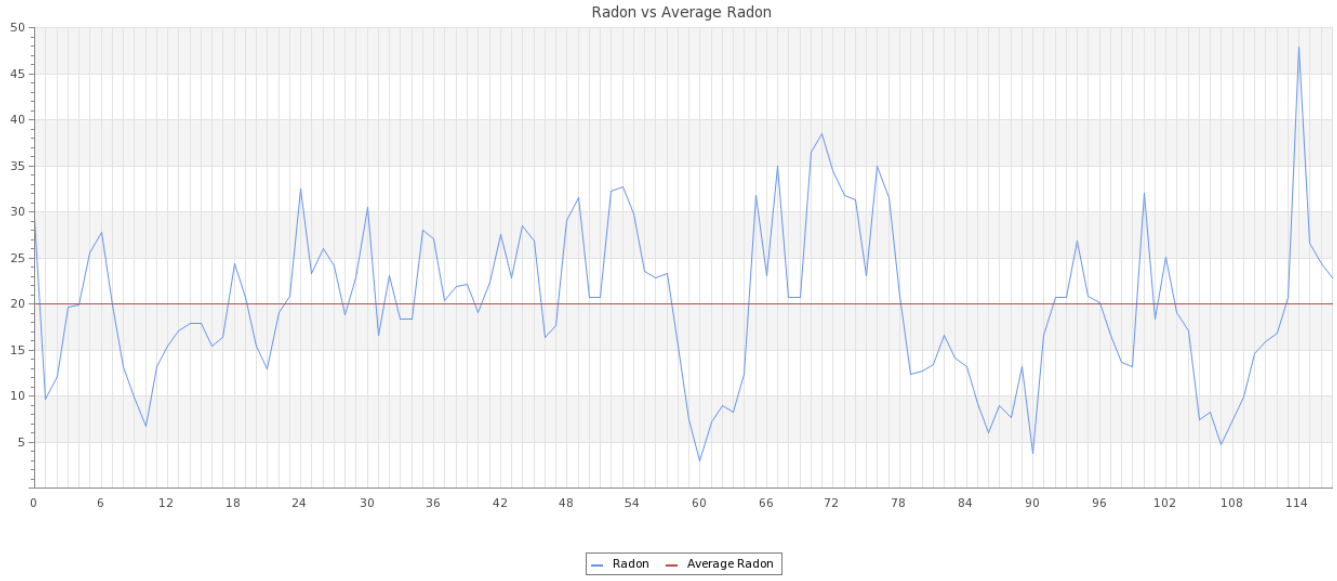
84	11/28/2020	05:12:24	14.1	71.6	30	29.3
85	11/28/2020	06:12:34	13.1	69.8	30	29.3
86	11/28/2020	07:12:26	9.1	69.8	30	29.4
87	11/28/2020	08:12:29	5.9	69.8	30	29.4
88	11/28/2020	09:12:16	8.9	69.8	30	29.4
89	11/28/2020	10:12:23	7.6	69.8	30	29.4
90	11/28/2020	11:12:25	13.1	69.8	30	29.4
91	11/28/2020	12:12:17	3.7	69.8	30	29.4
92	11/28/2020	13:12:26	16.6	71.6	30	29.4
93	11/28/2020	14:12:19	20.7	71.6	30	29.4
94	11/28/2020	15:12:35	20.7	73.4	30	29.3
95	11/28/2020	16:12:41	26.7	73.4	30	29.3
96	11/28/2020	17:12:35	20.8	73.4	30	29.3
97	11/28/2020	18:12:35	20.0	73.4	30	29.3
98	11/28/2020	19:12:33	16.6	73.4	29	29.3
99	11/28/2020	20:12:33	13.6	71.6	29	29.4
100	11/28/2020	21:12:31	13.1	71.6	30	29.3
101	11/28/2020	22:12:30	32.0	71.6	30	29.3
102	11/28/2020	23:12:30	18.3	71.6	29	29.3
103	11/29/2020	00:12:34	25.0	71.6	29	29.3
104	11/29/2020	01:12:36	19.1	71.6	29	29.3
105	11/29/2020	02:12:18	17.1	71.6	29	29.3
106	11/29/2020	03:12:33	7.4	71.6	29	29.3
107	11/29/2020	04:12:26	8.1	71.6	28	29.2
108	11/29/2020	05:12:23	4.7	71.6	30	29.2
109	11/29/2020	06:12:20	7.4	71.6	29	29.2
110	11/29/2020	07:12:16	9.9	69.8	30	29.2
111	11/29/2020	08:12:26	14.6	71.6	29	29.3
112	11/29/2020	09:12:22	15.8	69.8	29	29.2
113	11/29/2020	10:12:18	16.8	71.6	28	29.2
114	11/29/2020	11:12:08	20.7	71.6	28	29.2
115	11/29/2020	12:12:17	47.8	71.6	29	29.2
116	11/29/2020	13:12:17	26.5	71.6	28	29.2
117	11/29/2020	14:12:24	24.3	75.2	28	29.1
118	11/29/2020	15:12:39	22.8	75.2	29	29.1

TEST ID: _____

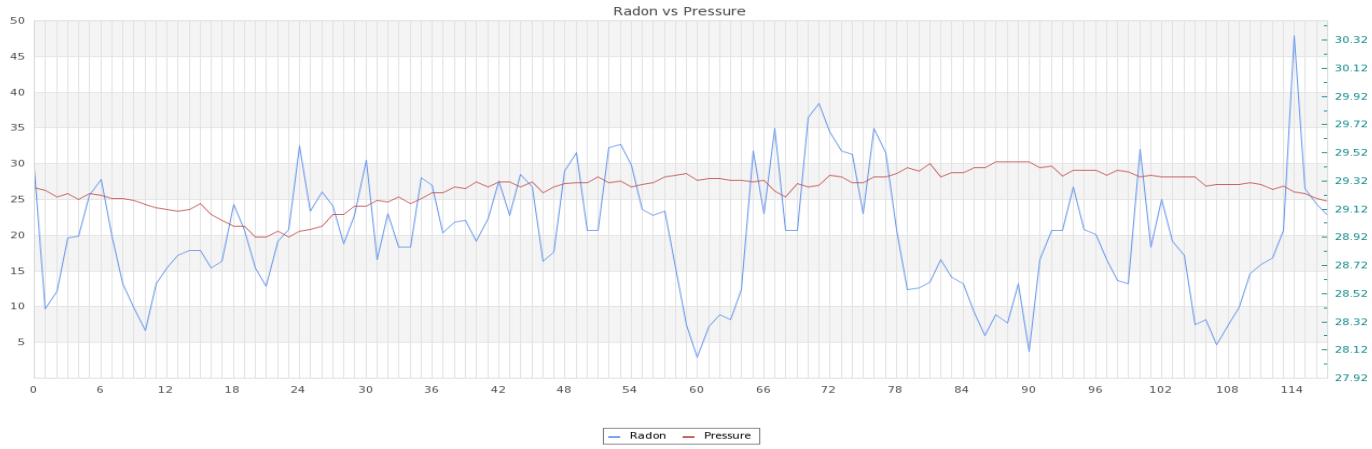
Radon Data Graphs:

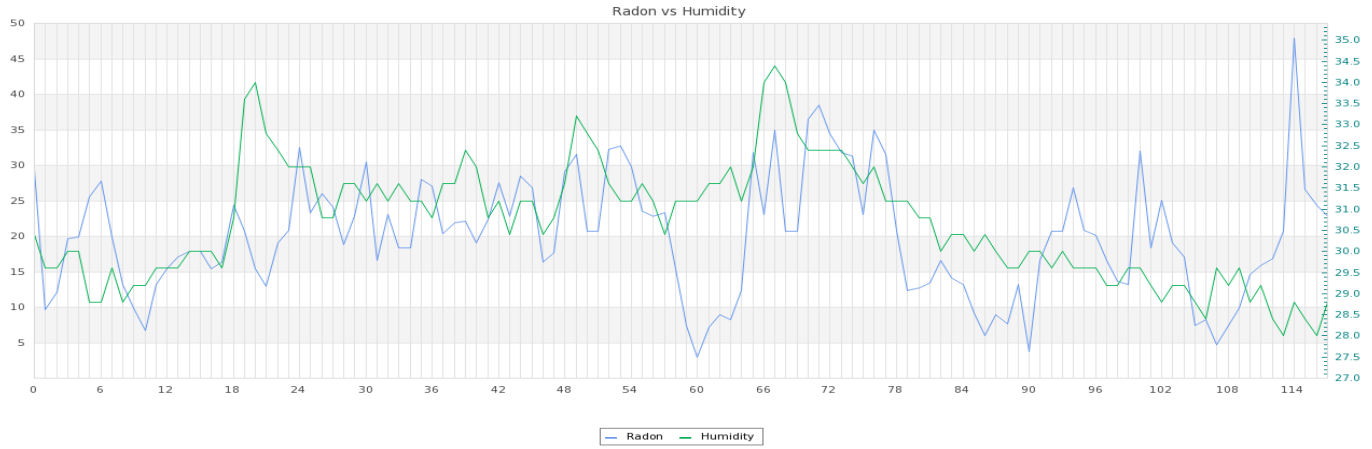
Radon concentrations vary from season to season, week to week, day by day, and hour by hour. US EPA guidelines state that action should be taken to reduce radon levels when the average during the test period is equal to or greater than 4.0 pCi/L.

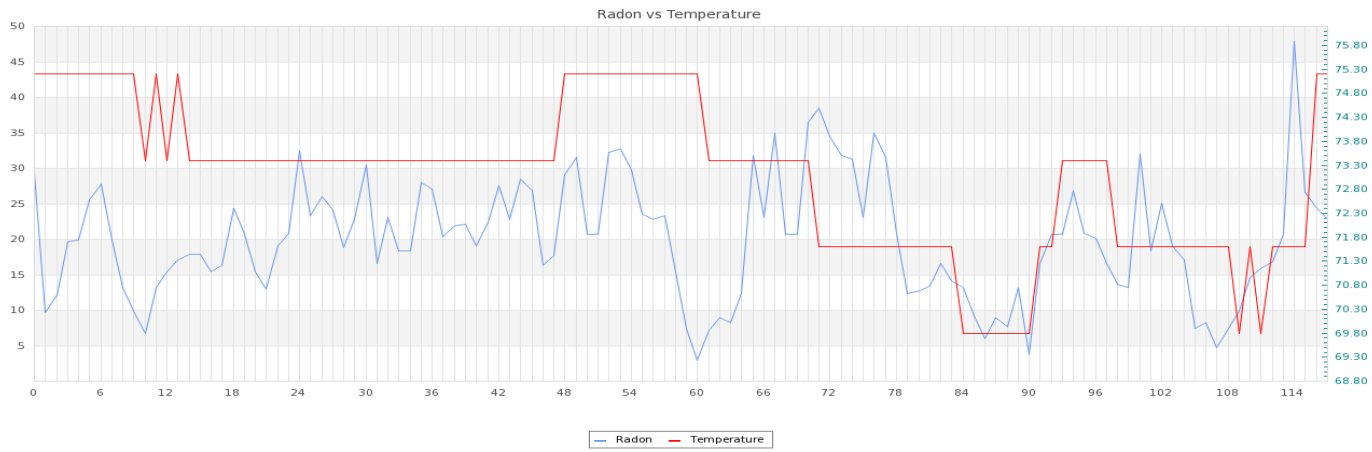
The following graph shows the hour by hour changes in the radon level. Large fluctuations in the average radon level may be observed when taking hour by hour readings. Concentrations above the action level during short intervals are not indicative of a situation that necessarily warrants remediation. One should base a decision to undertake remediation upon observing an average over at least 48 hours.



The following page provides graphs of the radon level along with barometric pressure, humidity, and temperature which indicate the conditions the under which the radon test was performed. Changes in barometric pressure can have an effect on conditions in the ground around the house and may correlate with changes in the radon level. Drastic sudden changes in temperature and humidity may indicate a change in the operation of the HVAC system or the introduction of outdoor air and may warrant further investigation.


Radon vs Pressure
Radon
Pressure


Radon vs Humidity
Radon
Humidity


Radon vs Temperature
Radon
Temperature

About Your Radon Test Results

Radon is a naturally occurring radioactive gas found in homes throughout the United States. Nearly 1 in 15 homes in the United States is estimated to have elevated levels of radon. Radon is measured in picocuries per liter, or pCi/L. The US EPA estimates the average indoor radon level to be about 1.3 pCi/L, and a level of 0.4 pCi/L is typical in outdoor air. The US Surgeon General has warned that radon is the second leading cause of lung cancer in the United States today. The EPA recommends that action be taken to reduce the radon level if the test result is 4.0 pCi/L or higher. A qualified radon reduction contractor can take steps to reduce the radon level.

The test that has been performed is a short term screening test, which measures the radon level only during the test period. Radon levels vary from room to room, day to day, and season to season. If time permits (more than 90 days) long-term tests can be used to confirm short-term test results. A long term test is more likely to give a reading closer to the yearround average.

The test has been performed in accordance with US EPA testing protocols, including the requirement to maintain “Closed Building Conditions”. The tester has left notice for occupants of the house. While certain precautions and quality controls have been taken to ensure these conditions and the integrity of the test, EnviroLabs Incorporated cannot guarantee the absence of circumstances beyond its control that have affected the outcome of the test.

What to do if your results are above the USEPA Action Level?

The US EPA recommends having the problem fixed by a qualified radon mitigation contractor if the results of this test is 4.0pCi/L or higher. Most homes can be fixed for about the same cost as other common home repairs. Many states require radon mitigation professionals to be licensed, certified, or registered. EnviroLabs makes no recommendations regarding mitigation contractors and suggests verifying credentials with the National Radon Proficiency Program (NRPP), the National Radon Safety Board (NRSB), and any relevant local building authorities.

Depending on the type of construction of the house the radon mitigation contractor may recommend different methods of radon reduction which will typically involve venting the radon outdoors before it enters the house.

You can find a listing of all NRPP Certified Radon Mitigation Contractors by clicking on the previous link and narrowing your search to Mitigation Providers for your state.

For More Information About Radon…

The following sources also provide extensive information regarding radon.

- National Safety Council (800) SOS-RADON (1-80--767-7236)
- The Radon FIX-IT Program, (800) 644-6999
- National Radon Proficiency Program (NRPP) 800-269-4174 www.aarst-nrpp.com/wp/
- National Radon Safety Board (NRSB) 866-329-3474 www.nrsb.org
- USEPA publications:

Home Buyers and Sellers Guide to Radon
Consumer’s Guide to Radon Reduction
A Citizen's Guide to Radon: The Guide to Protecting Yourself and Your Family from Radon

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