



Radon Measurement Results

Conducted by
HomeWorks Advantage Inspections, LLC
651-236-9923

Client Name: Customer

Property Address Tested: Customer Address

Dwelling Occupancy: Occupied

Foundation Type: Basement

Year Structure Built: 1912

Purpose of Test: Screening

Structure Type: Single Family

Approx. Structure Sq. Ft.: 2000

Weather Conditions During the Test: Clear

Test Conducted By: Matthew J. Welsch, NRPP Technician ID Number: 110026 RT – Exp. 08/31/2020

Mitigation System Installed: NO

Mitigation System Installed By: No system installed

Equipment Used: AIRTHINGS

Model: Corentium Pro

Serial Number: 2700007318

Monitor Calibration Date: 13July2018 Calibration Factor: .809

Monitor Location: basement

Test Start Date and Time: 8/23/18 6:34 AM

Test End Date and Time: 8/25/18 6:34 AM

TEST RESULTS: Overall Avg. 6.0 pCi/L

EPA Protocol Avg.

Adjusted EPA Avg.



Front view of structure tested

How to Read and Understand this Radon Measurement Report

The test was performed in accordance to the protocols specified in EPA 520-402-R-92-004; EPA1992 using an AIRTHINGS Model Corentium Pro Continuous Radon Monitor. The average radon levels established by the Environmental Protection Agency (EPA) for average national indoor radon level is estimated to be about 1.3 pCi/L and roughly 0.4 pCi/L of radon normally found in the outside air. Due to today's technology achieving a 0.4 pCi/L is an unrealistic attainable level for an indoor radon level. The regional average level for Minnesota is approximately 4.6 pCi/L of an indoor radon level.

When reading the individual numbered results on the TABULAR DATA SECTION of the report, start at the top left and read down the columns then left to right. Each column of numbers is equivalent to 16 hours. Using this method, you can determine the radon level for a particular time of the day. At the top of the detailed page is the Radon minimum, maximum and average. The Temperature, Humidity and Pressure are also indicated with a minimum, maximum and average readings.

The MEASUREMENT GRAPH SECTION shows Radon Concentrations and Motion Events and also Humidity and Temperature. Scale is automatically adjusted to show maximum value in pCi/L.

NOTE – when making a decision in regards to the mitigation of radon levels from the property, the individual hourly readings and what time of the day the radon peaks above 4.0 pCi/L should be taken into consideration, especially if individual readings and the overall average is on the border line.

EXAMPLE – by reading the individual levels, determine if levels are peaking above 4.0 pCi/L at times during the day/night that most family members are present. If these levels are doing this, you should seriously consider mitigation as a health precaution.

Please note that weather and wind conditions may have an effect on the hourly values measured during this Continuous Monitoring Radon Test. Therefore, individual hourly measurements exceeding the EPA recommended average mitigation level should not be interpreted as a failing of test requirements. Additionally, to allow for instrument and house equilibrium, the first four hours of data from the Continuous Monitor is excluded from the EPA Test Protocol Average (EPA 520-402-R-92-004; EPA1992).

The following three (3) pages contain the Tabular Data and Measurement Graph Sections which should make understanding the results of your test easier.

If you need any further assistance in regards to the test or the results, please contact me at 651-236-9923.

Thank you,



Matthew J. Welsch

NRPP Technician ID Number: 110026 RT

TABULAR DATA SECTION – average radon gas concentration during each measurement interval printed in sequential order – read columns from left to right.

NOTE – Formula for determining the Final Results

1. The **Overall Average**, which is not used in the calculations, is the total number of hours before the four hours that were removed by the computer for equilibrium.
2. The **EPA Protocol Average** is the total number of hours for the test, minus the 4 hours for the monitor to reach equilibrium.
3. The **Adjusted EPA Average** reflects the EPA Protocol Average minus the background value, the difference is then multiplied by the correction factor issued during the calibration process of the monitor used for this test.

Radon Inspection Report

Measurement of Radon Concentration in Indoor Air

Report nr: 2700007309201812130146
Serial nr: 2700007309

Report generated date: 12/13/18 1:46 PM

Measurement Address:

1234 Sample Address
Saint Paul, MN 55116
USA

Measurement performed by:

Matt Welsch
HomeWorks Advantage Inspections
1661 Watson Ave
Saint Paul, Minnesota 55116
mattw@homeworksadvantageinspections.com
USA

Ventilation: Natural

Building type: House

Building year: 1980

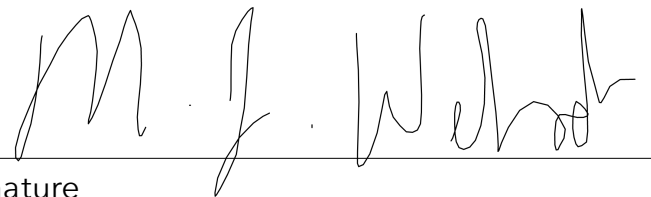
Room	Floor	Measurement Start	Measurement End	Measured Value
Basement	Basement	9/1/18 2:02 AM	12/13/18 1:02 PM	1.7 pCi/L

Potential Tampering Detected: the motion sensor was triggered for this measurement.

Basement
Location

December 13, 2018
Date

Signature





Detailed Measurement Data

Units	Min	Max	Average
Radon [pCi/L]	0.0	11.9	1.7
Temperature [°F]	45.7	81.7	67.1
Humidity [%rH]	27	67	48
Pressure [kPa]	96.32	99.97	98.44

Radon measurements for hour 2437 to hour 2484

Timestamp	Radon [pCi/L]	Timestamp	Radon [pCi/L]	Timestamp	Radon [pCi/L]
Hr. 2437 - 12.11 14:02	2.4	Hr. 2453 - 12.12 06:02	1.9	Hr. 2469 - 12.12 22:02	1.5
Hr. 2438 - 12.11 15:02	1.1	Hr. 2454 - 12.12 07:02	1.7	Hr. 2470 - 12.12 23:02	1.1
Hr. 2439 - 12.11 16:02	1.7	Hr. 2455 - 12.12 08:02	1.3	Hr. 2471 - 12.13 00:02	2.0
Hr. 2440 - 12.11 17:02	1.3	Hr. 2456 - 12.12 09:02	2.7	Hr. 2472 - 12.13 01:02	1.6
Hr. 2441 - 12.11 18:02	1.3	Hr. 2457 - 12.12 10:02	1.3	Hr. 2473 - 12.13 02:02	0.7
Hr. 2442 - 12.11 19:02	1.0	Hr. 2458 - 12.12 11:02	1.2	Hr. 2474 - 12.13 03:02	1.4
Hr. 2443 - 12.11 20:02	1.0	Hr. 2459 - 12.12 12:02	1.6	Hr. 2475 - 12.13 04:02	1.7
Hr. 2444 - 12.11 21:02	1.1	Hr. 2460 - 12.12 13:02	0.8	Hr. 2476 - 12.13 05:02	1.8
Hr. 2445 - 12.11 22:02	1.4	Hr. 2461 - 12.12 14:02	1.5	Hr. 2477 - 12.13 06:02	2.3
Hr. 2446 - 12.11 23:02	2.2	Hr. 2462 - 12.12 15:02	1.4	Hr. 2478 - 12.13 07:02	2.1
Hr. 2447 - 12.12 00:02	1.6	Hr. 2463 - 12.12 16:02	0.6	Hr. 2479 - 12.13 08:02	1.2
Hr. 2448 - 12.12 01:02	1.8	Hr. 2464 - 12.12 17:02	2.1	Hr. 2480 - 12.13 09:02	1.4
Hr. 2449 - 12.12 02:02	1.7	Hr. 2465 - 12.12 18:02	1.5	Hr. 2481 - 12.13 10:02	2.1
Hr. 2450 - 12.12 03:02	1.7	Hr. 2466 - 12.12 19:02	2.4	Hr. 2482 - 12.13 11:02	1.2
Hr. 2451 - 12.12 04:02	2.4	Hr. 2467 - 12.12 20:02	2.1	Hr. 2483 - 12.13 12:02	1.7
Hr. 2452 - 12.12 05:02	2.1	Hr. 2468 - 12.12 21:02	3.4	Hr. 2484 - 12.13 13:02	1.4

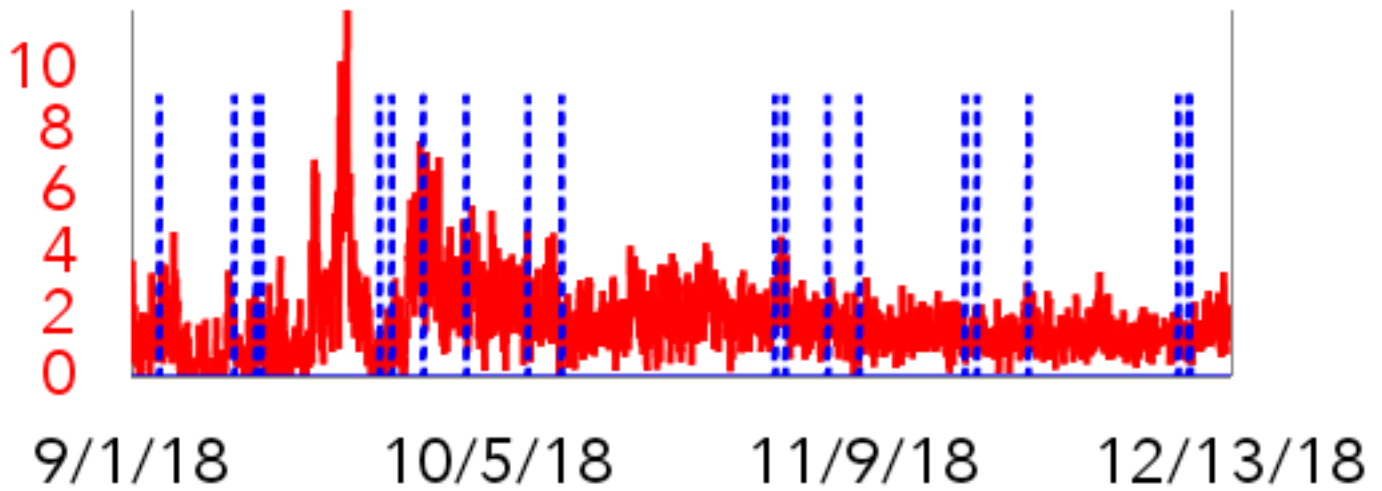
Radon measurements for hour 2389 to hour 2436

Timestamp	Radon [pCi/L]	Timestamp	Radon [pCi/L]	Timestamp	Radon [pCi/L]
Hr. 2389 - 12.09 14:02	1.6	Hr. 2405 - 12.10 06:02	1.8	Hr. 2421 - 12.10 22:02	1.6
Hr. 2390 - 12.09 15:02	1.2	Hr. 2406 - 12.10 07:02	0.8	Hr. 2422 - 12.10 23:02	1.5
Hr. 2391 - 12.09 16:02	1.6	Hr. 2407 - 12.10 08:02	1.2	Hr. 2423 - 12.11 00:02	1.2
Hr. 2392 - 12.09 17:02	1.3	Hr. 2408 - 12.10 09:02	1.2	Hr. 2424 - 12.11 01:02	1.5
Hr. 2393 - 12.09 18:02	1.2	Hr. 2409 - 12.10 10:02	1.7	Hr. 2425 - 12.11 02:02	2.0
Hr. 2394 - 12.09 19:02	1.2	Hr. 2410 - 12.10 11:02	1.1	Hr. 2426 - 12.11 03:02	1.5
Hr. 2395 - 12.09 20:02	1.1	Hr. 2411 - 12.10 12:02	1.2	Hr. 2427 - 12.11 04:02	2.5
Hr. 2396 - 12.09 21:02	1.4	Hr. 2412 - 12.10 13:02	1.1	Hr. 2428 - 12.11 05:02	1.9
Hr. 2397 - 12.09 22:02	0.4	Hr. 2413 - 12.10 14:02	1.8	Hr. 2429 - 12.11 06:02	2.4
Hr. 2398 - 12.09 23:02	1.6	Hr. 2414 - 12.10 15:02	0.8	Hr. 2430 - 12.11 07:02	2.0
Hr. 2399 - 12.10 00:02	1.0	Hr. 2415 - 12.10 16:02	0.9	Hr. 2431 - 12.11 08:02	2.4
Hr. 2400 - 12.10 01:02	1.3	Hr. 2416 - 12.10 17:02	1.4	Hr. 2432 - 12.11 09:02	2.2
Hr. 2401 - 12.10 02:02	2.0	Hr. 2417 - 12.10 18:02	1.7	Hr. 2433 - 12.11 10:02	1.0
Hr. 2402 - 12.10 03:02	2.4	Hr. 2418 - 12.10 19:02	1.8	Hr. 2434 - 12.11 11:02	2.8
Hr. 2403 - 12.10 04:02	1.9	Hr. 2419 - 12.10 20:02	0.9	Hr. 2435 - 12.11 12:02	1.5
Hr. 2404 - 12.10 05:02	1.0	Hr. 2420 - 12.10 21:02	1.1	Hr. 2436 - 12.11 13:02	2.3

Radon and Motion Chart

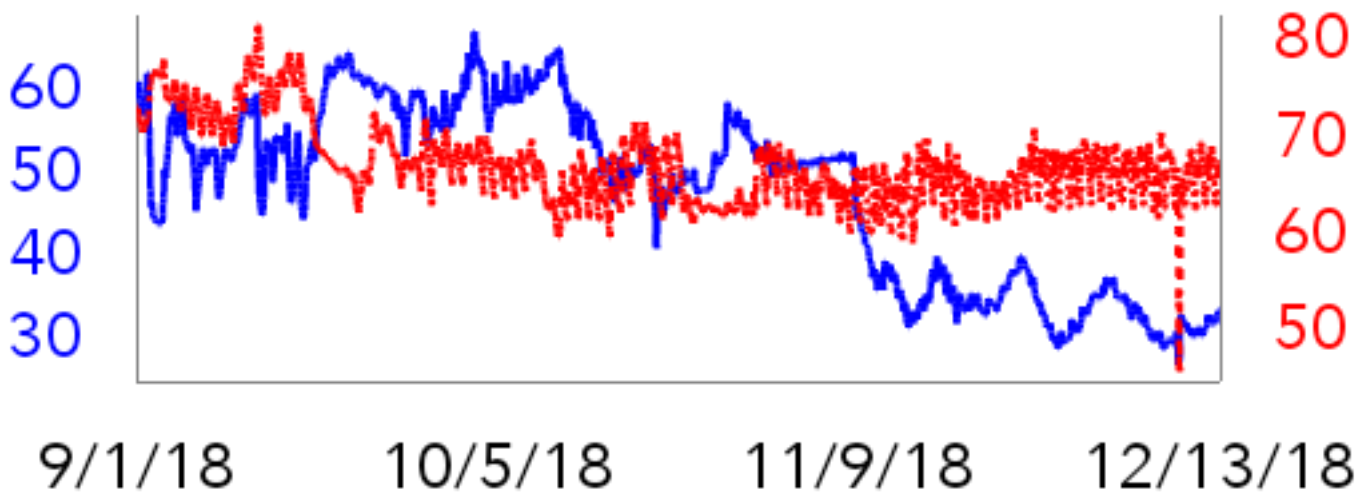


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■ Radon [pCi/L] ▮ Motion events

Humidity and Temperature Chart



■ Humidity [%rH] ▮ Temp [°F]

Pressure Chart



HomeWorks Advantage
Inspections

