

Radon Assessment Performed on 1/31/2022 Report Finalized on 02/02/2022

Project #JL-25993

Property Inspected

1608 Cataluna Place Palos Verdes Estates, CA 90274

Property Type: Two Story, Single Family Residence

Report Prepared By

JLM Environmental

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JLM Environmental conducted a radon survey of the subject property.

This report details the findings of that survey and gives recommendations. Sample locations and laboratory results are included as Table 1.



Radon Test Report Introduction

According to the US EPA, Radon is a naturally occurring element listed as **Rn** in the periodic table of elements. It is a heavy inert gas and in its natural state is harmless. Radon is odorless, tasteless, has no symptoms or side effect on the human body. It is, however, radioactive.

Radon gas decays into radioactive particles that can get trapped in your lungs when you breathe. As they break down further, these particles release small bursts of energy. This can damage lung tissue and lead to lung cancer over the course of your lifetime. Not everyone exposed to elevated levels of radon will develop lung cancer. And the amount of time between exposure and the onset of the disease may be many years.

Like other environmental pollutants, there is some uncertainty about the magnitude of radon health risks. However, we know more about radon risks than risks from most other cancer-causing substances. This is because estimates of radon risks are based on studies of cancer in humans (underground miners). Smoking combined with radon is an especially serious health risk. Stop smoking and lower your radon level to reduce your lung cancer risk. Scientists are more certain about radon risks than from most other cancer-causing substances. Children have been reported to have greater risk than adults of certain types of cancer from radiation, but there are currently no conclusive data on whether children are at greater risk than adults from radon.

Your chances of getting lung cancer from radon depend mostly on:

- · How much radon is in your property
- The amount of time you spend in your property
- · Whether you are a smoker or have ever smoked

There are two main sources for the radon in your property's indoor air, the soil and the water supply. Compared to radon entering the building through water, radon entering your building through the soil is usually a much larger risk. The radon in your water supply poses an inhalation risk and an ingestion risk. Research has shown that your risk of lung cancer from breathing radon in air is much larger than your risk of stomach cancer from swallowing water with radon in it. Most of your risk from radon in water comes from radon released into the air when water is used for showering and other household purposes. Radon in your property's water is not usually a problem when its source is surface water. A radon in water problem is more likely when its source is ground water, e.g. a private well or a public water supply system that uses ground water. If you are concerned that radon may be entering your property through the water and your water comes from a public water supply, contact your water supplier.

How to Lower the Radon Levels in Your Property

Since there is no known safe level of radon, there can always be some risk. But the risk can be reduced by lowering the radon level in your property. There are several proven methods to reduce radon in your property, but the one primarily used is a vent pipe system and fan, which pulls radon from beneath the house and vents it to the outside. This system, known as a soil suction radon reduction system, does not require major changes to your building. Sealing foundation cracks and other openings makes this kind of system more effective and cost-efficient. Similar systems can also be installed in houses with crawl spaces. Radon contractors can use other methods that may also work in your building. The right system depends on the design of your building and other factors. Ways to reduce radon in your property are discussed in EPA's Consumer's Guide to Radon Reduction. The cost of reducing radon in your property depends on how your property was built and the extent of the radon problem. Most buildings can be fixed for about the same cost as other common repairs.

PROPERTY INFORMATION

Property Type Two Story House

Property is Currently Vacant
Property Size (sq. ft.) >1000
Age of Property (Year) 1990

Weather Cloudy - 50° F

 Children Present
 No

 Client Present
 No

 Inspection performed for
 Buyer

Inspection Type Real Estate Transaction

Current mitigation system present?

TESTING CONDITIONS

Was the Radon Testing Agreement Form signed by the client? Yes

Was the Radon Equipment Release Form signed by the client? Yes

Has JLM Environmental performed a previous investigation of this site? No

Was JLM provided with documents of previous site related investigations or protocols?

At the start of the testing period, were all exterior doors and windows closed?

Yes

Has the home been under closed conditions prior to the start of the testing period?

At the end of the testing period, were all exterior doors and windows closed?

Radon Test Information

Continuous radon monitors were placed in several areas of the property. Duration of the monitors were from 1/31/2022 through 02/02/2022. Locations are as follows:

Radon mitigation is recommended in the home. Once mitigation has been performed additional testing is recommended to ensure the mitigation is reducing the radon levels in the home to acceptable levels.

Motion/vibrations were observed during the radon test in the living room. No tampering that would indicate falsifying results was detected.

Table 1.

Monitor #	Location	Reading
06	Living Room	8.1 pCi/L
07	Dining Room	8.7 pCi/L
BUILDING EPA AVERAGE RADON LEVEL: 8.4 PicoCuries/Liter (pCi/L)		

This test represents the average radon concentration at the time the sampling was conducted within the building.

Interpreting Your Test Results

UNDER 4.0 pCi/L: The USEPA states that for test results in this range (less than 4.0 pCi/L) you do not need to conduct radon mitigation 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. Per the EPA's "A Citizen's Guide to Radon", the average indoor radon level is estimated to be about 1.3 pCi/L and about 0.4 pCi/L of radon is normally found in the outside air.

AT or ABOVE 4.0 pCi/L: The US EPA strongly recommends fixing your property to reduce radon levels if the measured average level in the property is equal to or above 4.0 pCi/L. Radon mitigation is recommended in the home. Once mitigation has been performed additional samples are recommended to ensure the mitigation is reducing the radon levels in the home to acceptable levels. This test represents the average radon concentration at the time the sampling was conducted and at the specific location within the building. However, it must be noted that radon concentrations will vary from day to day and from season to season. The procedures used for generating this report are in accordance with the current EPA protocols for the analysis of radon in air. The results of the report are based upon a short-term test and are not to be interpreted as a measure of the annual average or of the actual occupant exposure or health risk.

Additional information is available from the EPA "Home Buyer's and Seller's Guide to Radon." You may also obtain this information by contacting your state radon office. The subject property described has been tested for the presence of radon gas according to US EPA short—term testing protocols. This report represents the average radon concentration at the time of sampling and at the specific location in the building. However, it must be noted that radon concentrations will vary from day to day and from season to season.

RADON TEST RESULTS

Radon Monitor 06: Living Room

Device was placed away from draft and heat sources.

Yes

Device was placed between 18-48 inches from the floor

Yes

Device was placed at least 4 inches from other objects.

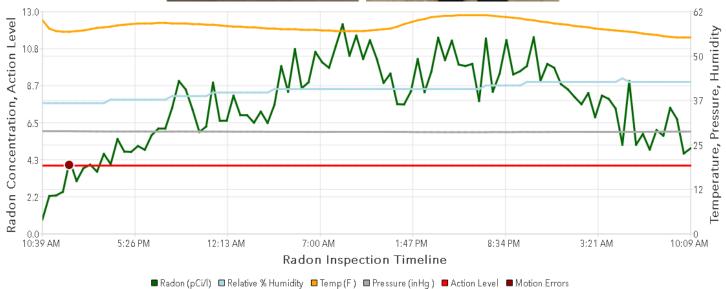
Yes

Device was placed at least 3 feet from exterior doors/walls

and at least one foot from exterior walls.







Radon Monitor 07: Dining Room

Device was placed away from draft and heat sources.

Yes

Device was placed between 18-48 inches from the floor

Yes

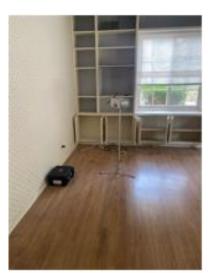
Device was placed at least 4 inches from other objects.

Yes

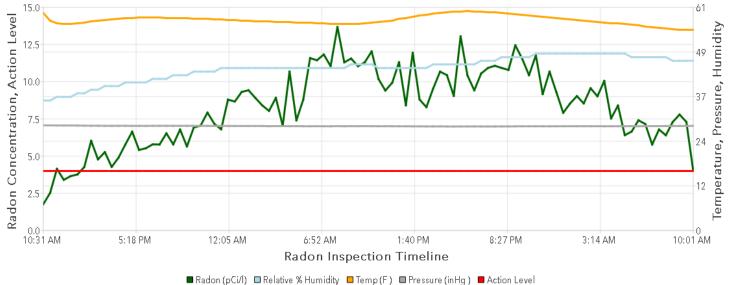
Device was placed at least 3 feet from exterior doors/walls

Yes

and at least one foot from exterior walls.







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Sincerely

Jonathan Massey

Certified Asbestos Consultant license #11-4813

Contractor State License Board #949259

HCC Surety Group Bond #100128922

Certified Lead Inspector/Assessor #LRC-00002199



ASBESTOS · LEAD · MOLD



CONTRACTORS STATE LICENSE BOARD **ACTIVE LICENSE**



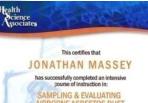
NAME MASSEY CONSTRUCTION



Expiration Date 06/30/2022

www.cslb.ca.gov





SAMPLING & EVALUATING AIRBORNE ASBESTOS DUST Equivalent to N I O S H 5 8 2

provided by th Science Associates at St., Los Alamitos, CA 90720 on May 7-10, 2012.

Kathy S. Jones Kathy S. Jones, Training Director





Be it known that JONATHAN L. MASSEY

WATER DAMAGE RESTORATION APPLIED MICROBIAL REMEDIATION

179334

4/30/2022

THE NATIONAL RADON SAFETY BOARD

Certified Radon Professionals

Certifies that Jonathan L. Massey

Has Successfully Met/The Established & Published Requirements for Certification by The National Radon Safety Board as a

Radon Measurement Specialist

1355057 Certification Number

8/30/2023

Expiration Date

This certificate is the property of The National Radon Safety Be

Kehaulani Kekoa

NRSB

The National

Environmental Trainers

(WWW.NATLENVTRAINERS.COM)

Jonathan Massey has satisfactorily passed an exam and completed an 8-hour annual refr training course entitled "HAZWOPER 8 Hour Annual Refresher - 1910.120 (e) e entitied **Refresher - 1910.120 (e)"** ed in Title 29 CFR 1910.120.

Date 04/05/2021

#188572



Para cure Paul J. Colangelo Training Facilitator



STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



CERTIFICATE TYPE:

Lead Inspector/Assessor Lead Supervisor

NUMBER:

LRC-00002199 LRC-00002198 EXPIRATION DATE:

7/22/2022 7/22/2022

Jonathan Massey

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.



STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:

CERTIFICATE TYPE:

NUMBER:

EXPIRATION DATE:

Lead Sampling Technician

LRC-00009508

12/3/2022

George Casillas

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