



# 100 Radon Test Kit Challenge: Oliver, BC

“Empowering Communities, Saving Lives”



Canadian  
Cancer  
Society





## Project Overview:

- The *100 Radon Test Kit Challenge* program provides 100 radon test kits (or more), free of charge, to communities, to distribute to their citizens.
- “Turn-key program” provides tools and resources for each step of the process.
- No cost to participating communities: requires only staff time for organizing, distributing, and collecting test kits.



Canadian  
Cancer  
Society



## Program Goals

1) Distribute radon test kits to communities where there is a risk of elevated radon levels, and where testing has thus far been limited.

- *100 test kits distributed for 100 days*

2) Raise local radon awareness

- *community members with a personal report*
- *community champions receive a summary report*

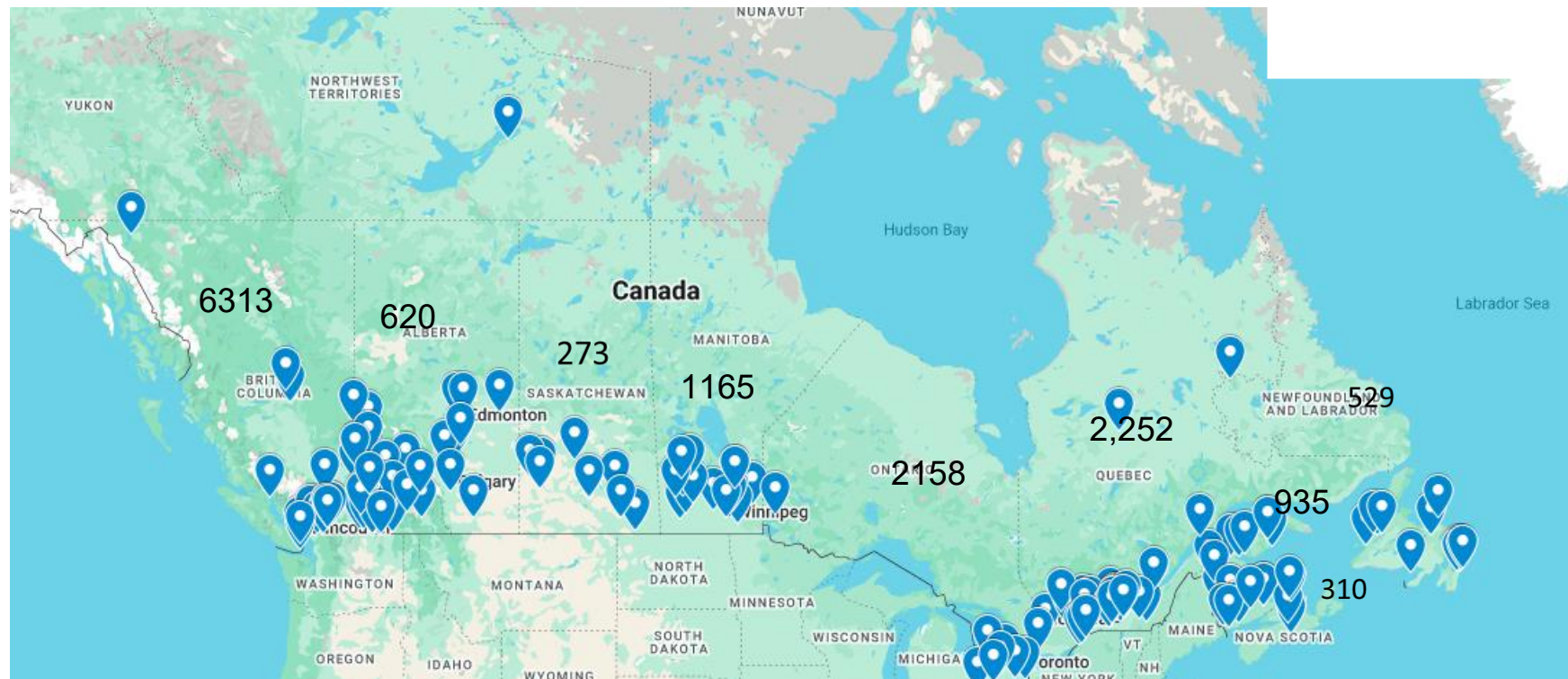
3) Generate data in under-tested urban and rural regions of the country

4) Inspire legacy radon programming in participating communities



## Impact to date

*Over 160 Communities  
-11 Provinces/Territories  
-over 10 First Nations  
-2 Métis groups*



*Over 30 000 detectors distributed  
with an average of 74% return rate:  
more than 21 000 homes tested*

*More than 30% of those who've tested over  
200 Bq/m3 have  
Mitigated their homes already!*





### 2018-19

(9)

Moncton, NB  
Salmon Arm, BC  
Winnipeg, MB  
Spruce Grove, AB  
Golden, BC  
Souris, MB  
Port Colborne, ON  
Baden, ON  
Wabana, NL

### 2019 – 2020 (15)

Halifax, NS  
Sherbrooke, QC  
Brandon, MB  
Dauphin, MB  
Greater Madawaska  
Region, ON  
Summerland, BC  
Valemount, BC  
Coquitlam, BC  
Abbotsford, BC  
McBride, BC  
Vaudreuil-Dorion, QC  
Pembroke, ON  
Harrison Park, MB  
North Grenville, ON

### 2020 – 2021 (20)

Sicamous, BC  
Peachland, BC  
West Bank First Nation, BC  
West Kelowna, BC  
Kelowna, BC  
Vernon, BC  
Sundre, AB  
Black Diamond, AB  
Eston, SK  
Silver Harbour, MB  
Lakeshore, MB  
Chatham-Kent, ON  
Leeds & Thousand Islands, ON  
Carleton-sur-mer, QC  
Saint-Joseph du-Lac, QC  
Lorraine, QC  
Candiac, QC  
Madawaska, NB  
Mount Pearl, NL  
Stephenville, NL

### 2021 – 2022 (30)

Barriere, BC  
Peachland, BC  
West Bank First Nation, BC  
West Kelowna, BC  
Kelowna, BC  
Vavenby, BC  
Clearwater, BC  
Blue River, BC  
Grand Forks, BC  
Revelstoke, BC  
Eatonia, SK  
Weyburn, SK  
Clarence-Rockland, ON  
Ottawa, ON  
Waterloo, ON  
Mallorytown, ON  
Candiac, QC  
Percé, QC  
Deux-Montagnes, QC  
Saint-Augustin-des-  
Desmaures, QC  
Grand Falls, NB  
Gander, NL  
Harbour Breton, NL  
Fogo Island, NL  
7 Nations Communities, NB  
Treaty 3 Communities, ON

### 2022 – 2023 (25)

Kimberley, BC  
Kelowna, BC  
West Kelowna, BC  
Lake Country, BC  
Peachland, BC  
West Bank First Nation, BC  
Salt Spring Island, BC  
Chilliwack, BC  
Mission, BC  
Cultus Lake, BC  
Hope, BC  
Harrison and Kent, BC  
Estevan, SK  
Whitecap Dakota First  
Nation, SK  
Edenwold, SK  
East St. Paul, MB  
RM of Hanover, MB  
Cavan Monaghan, ON  
Ste-Anne-de-Bellevue, QC  
Prévost, QC  
Cantley, QC  
Gaspé, QC  
Beloeil, QC  
Woodstock First Nation, NB  
Riverview, NB

## 100 Test Kit Challenge communities, by year

# 100 Test Kit Challenge communities, by year



## 2023 – 2024

BC Cancer – Victoria, BC  
Fort St. James, BC  
Lumby, BC  
Lillooet, BC  
Keremeos, BC  
Radium Hot Springs BC  
Invermere, BC  
Enderby, BC

Edmonton, AB  
Innisfail, AB  
Lacombe County, AB  
RM of Miry Creek, SK (Abbey, SK)

Neepawa, MB  
Dauphin, MB  
Portage la Prairie, MB  
Pinawa, MB

Augusta, ON  
Woodstock and St. Thomas, ON

Pessamit, QC  
Sainte-Julie, QC  
Sainte-Marthe-sur-le-Lac, QC  
Pincourt, QC  
Maria, QC

Conception Bay South, NL  
Logy Bay-Middle Cove-Outer Cover, NL  
Gillams, NL  
Pasadena, NL

## **Repeating in:**

Regional District of Central Okanagan, BC  
Woodstock First Nation, NB  
Kimberley, BC  
Fraser Valley Regional District, BC



# 100 Test Kit Challenge communities, 2024-2025



City of Rossland, BC

Oliver, BC

Atlin, BC

Strathcona Regional District, BC

Village of Nakusp, BC

Village of Kaslo, BC

RDCO, BC

Rock Creek, BC

Fraser Valley, BC

Lethbridge, AB

Village of Myrnam, AB

Village of Caronport, SK

RM of Macdonald, MB

RM of Yellowhead, MB

Haldimand-Norfolk Health & Social Services, ON

Kenora, ON

Township of Ashfield-Colborne-Wawanosh, ON

Valcourt, QC

Boisbriand, QC

Saint-Barbe, QC

Saint-Charles-sur-Richelieu, QC

Saint-Antoine-sur-Richelieu, QC

Beloeil, QC

Gaspé, QC

Listique, QC

Gesgapegiag, QC

Matimekush, QC

Pessamit, QC

Central York Rural Community, NB

Grand Bay, NB

Municipal District of St Stephen, NB

Municipality of Eastern Charlotte, NB

Butternut Valley, NB

Millbrook First Nation, NS

Charlottetown (North of Euston and area), PEI

Steady Brook, NL

Mount Pearl, NL

Conception Bay South, NL

St. Johns, NL






This project was supported by the BC Lung and Vancouver Foundation.





# Community Participant Stats



Eurofins Radon Testing Sweden AB  
Box 63  
971 03 LULEÅ  
SWEDEN

Website: [radon.eurofins.se/en-gb/](https://radon.eurofins.se/en-gb/) C-NRPP ID: CAL-202502

### Radon Test Report

Report Issue Date: «Report\_Issue\_Date»

Customer Contact Information:

«First\_Name» «Last\_Name»  
«Mailing\_Address»  
«Email»

Tested Address:

«Testing\_Address»  
«City/Town», «Province» «Postal Code»  
Device Location:  
«Device\_Location»

---

Test Device Used: **AlphaTrack**  
C-NRPP Listed Device - Quality Assurance Plan in place.

Detector S/N	Detector Type	Test Start Date	Test End Date	Test Duration	Test Result (Bq/m³)
«Detector_S/N»	AlphaTrack	«Test_Start_Date»	«Test_End_Date»	«Test_Duration»	«Test_Result_Bqm»

Results from Lab Section 4 authorized by «Lab Supervisor»  
Margin of Error +/- «Margin of Error»  
Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

**Recommendations:**  
«Additional\_information\_about\_your\_sample»  
«Recommendations»

You can find a C-NRPP mitigation professional to help you here: <https://c-nrpp.ca/find-a-professional/>

Need help with interpreting this report? You can find information online: <https://takeactiononradon.ca/understanding-your-radon-test-report/>

The information in this report will be shared with the Take Action on Radon group.

## Understanding your RADON TEST RESULTS

### When you get your radon test report

Look for your radon level in order to make a decision of what you should do next.

The radon level will be reported in Bq/m³. This is a measurement of radioactivity because radon is a radioactive gas.

**✓** If your radon level is below 200 Bq/m³, it is within the Canadian guideline. Consider retesting within the next 5 years.

**! REDUCE LEVELS:** When your radon level is reported at 200 Bq/m³ or more, take action to REDUCE radon levels within one year.

### The Canadian guideline for radon in indoor air is 200 Bq/m³

If you've tested your home, and the radon concentration is above the Canadian guideline of 200 Bq/m³, Health Canada recommends that you take action to lower the concentrations.

The higher the radon concentrations, the sooner action should be taken to reduce levels to as low as practically possible. While the health risk from radon exposure below the Canadian guideline is small, there is no level that is considered risk free. It is the choice of each homeowner to decide what level of radon exposure they are willing to accept.

RADON LEVEL	LIFETIME RISK OF LUNG CANCER	LIFETIME RISK OF LUNG CANCER IF YOU SMOKE
Under 100 Bq/m³	1%	12%
100-199 Bq/m³	1.5%	15%
200-999 Bq/m³	2%	17%
600 Bq/m³ and over	4%	26%

Now that you have tested your home, encourage your friends and family to test too! They can find a radon test kit provider online: <https://takeactiononradon.ca/test-for-radon/radon-test-kits/#buykit>



### Need to reduce your radon?

There may be financial programs available to help you. You can find information about radon grant or radon warranties on our website at:

[www.takeactiononradon.ca/protect](https://www.takeactiononradon.ca/protect)

**HOW TO FIND A CERTIFIED PROFESSIONAL**  
[takeactiononradon.ca/test/find-a-radon-mitigation-professional](https://takeactiononradon.ca/test/find-a-radon-mitigation-professional)  
Certified radon mitigation professionals are trained to properly assess your home, and design systems to efficiently and effectively reduce your radon level.



### Radon Mitigation System

A radon mitigation system is the most effective method of reducing radon levels. Research shows that certified radon professionals can reduce levels by over 90%. Other steps, such as increasing ventilation and sealing cracks, can help in the short-term but are less effective.

### Find more information on radon reduction:

The Canadian National Radon Proficiency Program has a list of certified professionals to help with reducing radon levels.  
Find more information on radon reduction at: [www.c-nrpp.ca](https://www.c-nrpp.ca)



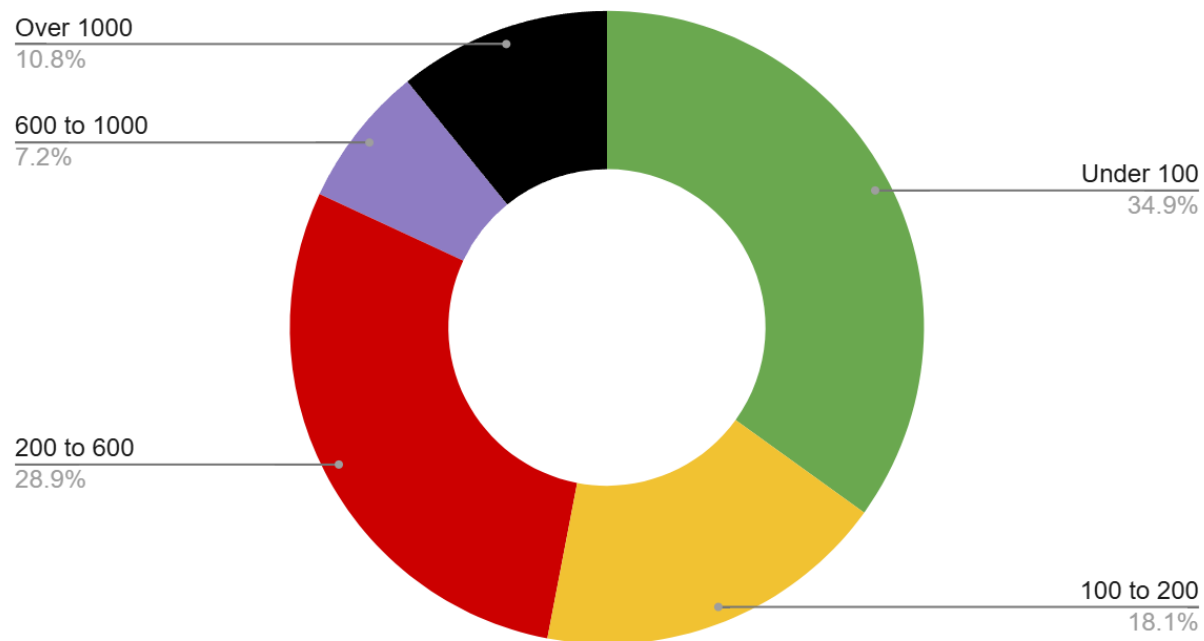
Find information from Health Canada, including Radon Reduction Guide for Canadians at: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-reduction-guide-canadians-health-canada.html>



By now, each community member should have received an individual confidential report.

Detectors distributed	Start Surveys Completed	Kits Returned to Lab	Reports Issued	Return Rate
100	92	92	83	83 %

### Oliver Results Breakdown



47 % tested over 200 Bq/m<sup>3</sup>

83 Households Completed the testing

### Total

9	10.8%	Above 1000
6	7.2 %	Between 600 and 1000
24	28.9 %	Between 200 and 600
15	18.1 %	Between 100 and 200
29	34.9 %	Less than 100



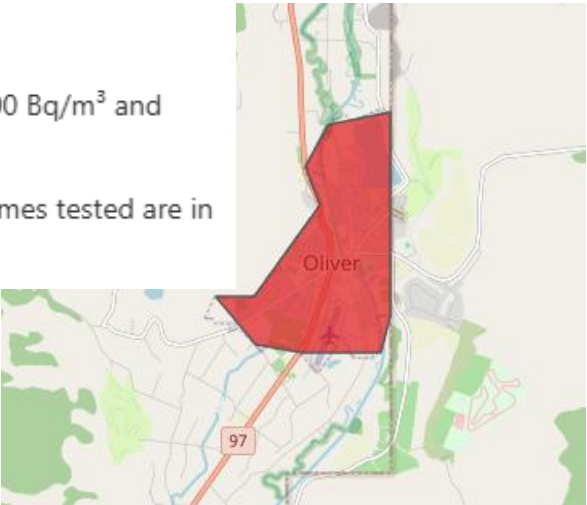


# Indoor Radon Exposure in Town of Oliver

These coloured homes represent the estimated percentage of homes in this region that range in radon levels from 100 Bq/m<sup>3</sup> and under to over 600 Bq/m<sup>3</sup>. These estimates are based on **57** samples taken in this region.

In this region, we estimate that **38%** of homes tested are in the 201-600 Bq/m<sup>3</sup> range for radon levels and **21%** of homes tested are in the over 600 Bq/m<sup>3</sup> range for radon levels.

<https://bccdc.shinyapps.io/bcradonmap/>



## Information by Postal Code

	2024-2025 100RTKC				Stats Canada		2012 Health Canada Cross Canada Survey			
Postal Code	Number of Data points	Percentage of Tests above 200 Bq/m3	Average radon Level	Highest Radon Level	Private dwellings occupied by usual residents	% of dwellings tested	Number of Data points	Percentage of Tests above 200 Bq/m3	Average Radon Concentration	% of dwellings tested
V0H	79	48%	440.0	5600.0	23835	0.33%	34	38	267	0.14%

## Quality Control

Duplicates		
Number of duplicate pairs distributed	Number of pairs that came back	Number of pairs that were split up
10	9	0



## Type of Home

	< 200	> 200	Total
Single detached home	24	28	52
Semi-detached home	6	3	9
Strata/apartment on ground floor or basement	1	0	1
Mobile home on the ground or with well-sealed skirting	3	0	3
Mobile home without ground contact	3	0	3
			68

### Owner or Renter

	< 200	> 200	Total
Own	37	28	65
Rent	0	3	3

### Intention to Mitigate if required

	< 200	> 200	Total
I am very likely to take action to reduce my radon level.	11	8	19
I am quite likely to take action to reduce my radon level.	10	19	29
I am undecided.	19	8	27
I am unlikely to take action to reduce my radon level.	0	0	0
			<b>75</b>

Two of the renters with high radon felt they were “very likely” to mitigate, while the other was undecided.

## Have you previously tested for radon?

	< 200	> 200	Total
Yes	3	3	6
No	39	36	75
			<b>81</b>

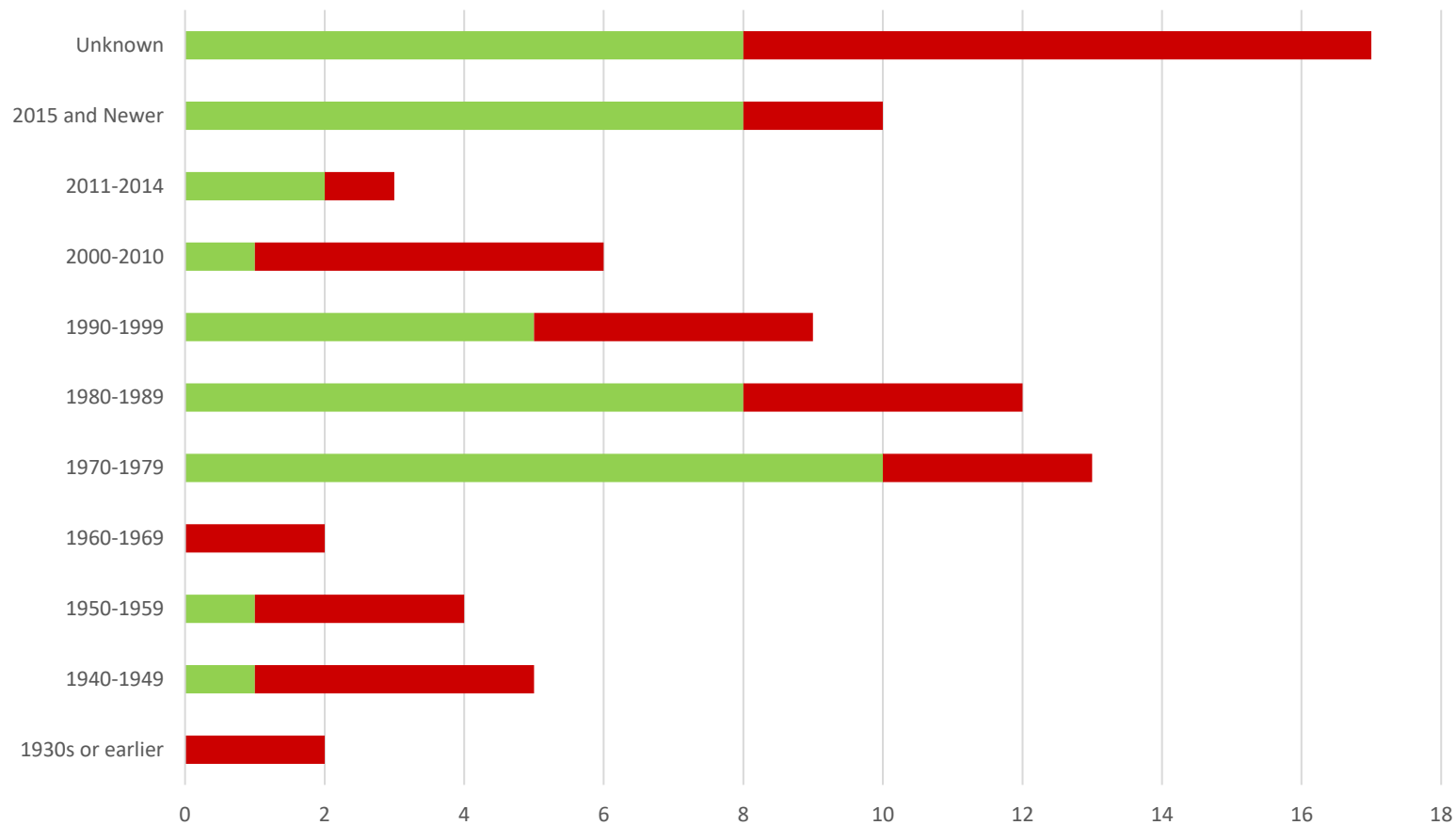
→ Current test results correlate with past results. Note that one of these is very high > 2000.

## Existing radon system?

	< 200	> 200	Total
No	38	31	39
I don't know	2	5	7
Radon rough-in	0	0	0
Passive stack	1	2	3
Full system with fan	1	1	2
			<b>81</b>

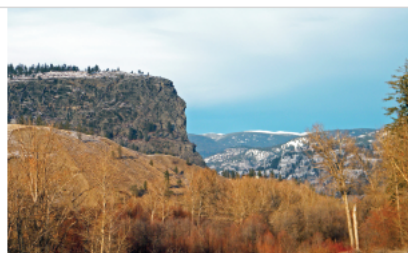
→ We have reached out to the person with the system who still has high levels.

Results by Year of Construction - Oliver





# Community Report



TAKE  
ACTION  
ON RADON

OLIVER, BC

100 Radon  
Test Kit Challenge

## 83 HOMES

participated by testing for radon gas during the winter of 2024 using 91-day alpha track tests. This represents approximately 4% of the community dwellings.

**47%** of homes tested above Health Canada's guideline of 200 Bq/m<sup>3</sup>



Radon is a naturally occurring radioactive gas that comes from the ground.



Exposure to elevated levels of radon is linked to increased chances of developing lung cancer.



UNDER 100 Bq/m<sup>3</sup> (35%)    100-200 Bq/m<sup>3</sup> (18%)    OVER 200 Bq/m<sup>3</sup> (47%)

Levels can vary between neighbouring houses. The only way to know your radon level is to test.



Radon enters a home through contact with the ground and can build up to elevated levels.

## When you get your radon test report

Look for your radon level in order to make a decision of what you should do next.

The radon level will be reported in Bq/m<sup>3</sup>. This is a measurement of radioactivity because radon is a radioactive gas.



If your radon level is below 200 Bq/m<sup>3</sup>, it is within the Canadian guideline. Consider retesting within the next 5 years.



**REDUCE LEVELS:** When your radon level is 200 Bq/m<sup>3</sup> or more, take action to REDUCE radon levels within one year.

## The Canadian guideline for radon in indoor air is 200 Bq/m<sup>3</sup>

If you've tested your home, and the radon level is above the Canadian guideline of 200 Bq/m<sup>3</sup>, Health Canada recommends that you take action to lower the level.

The higher the radon level, the sooner action should be taken to reduce the level to as low as practically possible. While the health risk from radon exposure below the Canadian guideline is small, there is no level that is considered risk free. It is the choice of each homeowner to decide what level of radon exposure they are willing to accept.

RADON LEVEL	LIFETIME RISK OF LUNG CANCER	LIFETIME RISK OF LUNG CANCER IF YOU SMOKE
Under 100 Bq/m <sup>3</sup>	1%	12%
100-199 Bq/m <sup>3</sup>	1.5%	15%
200-599 Bq/m <sup>3</sup>	2%	17%
600 Bq/m <sup>3</sup> and over	4%	26%

Now that you have tested your home, encourage your friends and family to test too! They can find a radon test kit provider online: [takeactiononradon.ca/test-for-radon/radon-test-kits/#buykit](https://takeactiononradon.ca/test-for-radon/radon-test-kits/#buykit)

## Need to reduce your radon?

There may be financial programs available to help you. You can find information about radon grants or radon warranties on our website at: [www.takeactiononradon.ca/protect](https://www.takeactiononradon.ca/protect)



## Radon Mitigation System

A radon mitigation system is the most effective method of reducing radon levels. Research shows that certified radon professionals can reduce levels by over 90%. Other steps, such as increasing ventilation and sealing cracks, can help in the short-term but are less effective.

## Construction of New Homes

Depending on the year of construction of a home, the Manitoba building code requires installation of a radon stub pipe through the foundation of the house. This is not a radon mitigation system, but simply a rough-in.

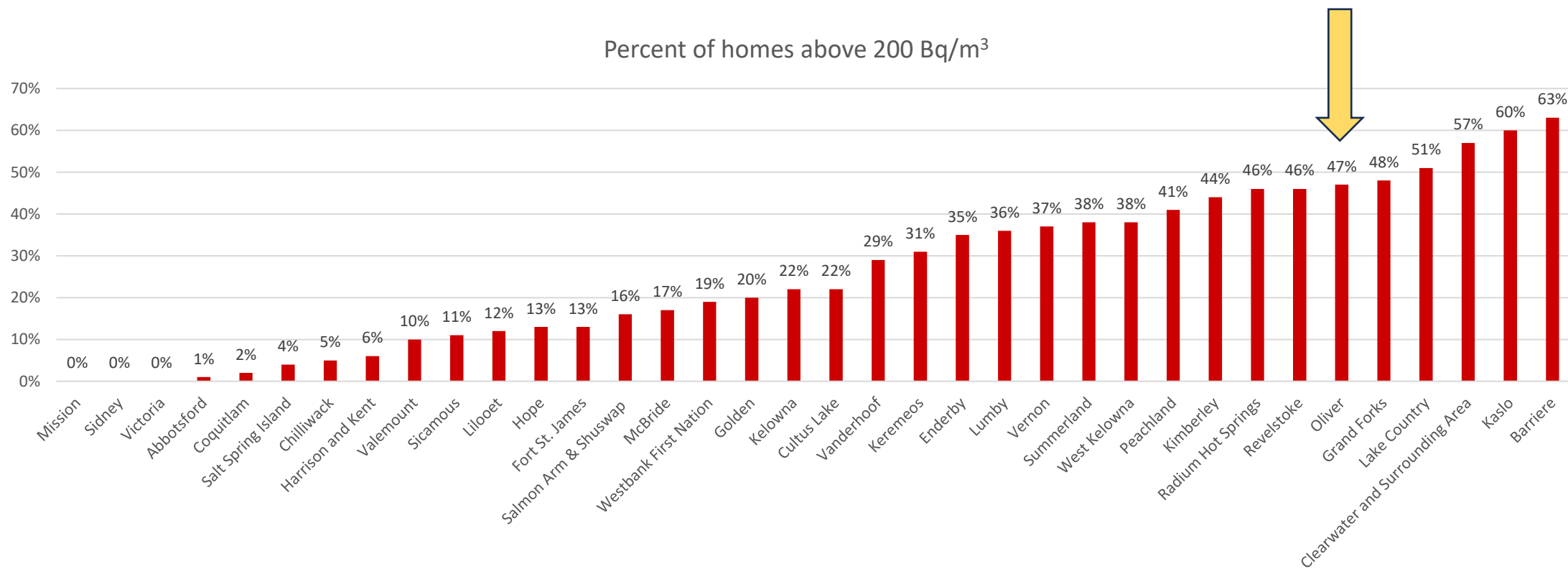
Every home needs to be tested for radon for at least 91 days, during the heating season to determine if a mitigation system is required.

## Find more information on radon reduction:

The Canadian National Radon Proficiency Program has a list of certified professionals to help with reducing radon levels. Find more information on radon reduction at: [c-nrpp.ca/find-a-professional](https://c-nrpp.ca/find-a-professional)

Find information from Health Canada, including the Radon Reduction Guide for Canadians at: [www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-reduction-guide-canadians-health-canada.html](https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-reduction-guide-canadians-health-canada.html)

# How does your community compare?



## NEXT STEPS – for Participants:

Individual  
reports

Participants should  
have their individual  
report, *COMPLETED*

FAQs

Link to FAQs – Resource for  
Community Liaisons  
*Currently available*

Community  
Report

Email to participants –  
re: Community report.  
*After Mayor and  
Council have been  
briefed*

Regional  
Webinar

Pre-recorded  
Webinar for  
participants.  
*We will share this with  
you and participants*

**FOR IMMEDIATE RELEASE**

## **Community addresses lung cancer risk: residents test radon gas levels at home**

**Oliver, BC (June ##, 2025)** - A new report available online found that 47% of the homes tested in Oliver had radon levels above the Canadian guideline level, further emphasizing the need for all residents to test their homes for radon. Residents participated in the national “100 Radon Test Kit Challenge” which to date has provided over 30,000 radon tests to communities across Canada.

“We were pleased to see so many residents recognize the importance of testing their home for radon,” says Pam Warkentin, Project Manager at [Take Action on Radon](#). “Our community approach to the 100 Radon Test Kit Challenge means that no one needs to feel they’re the only one testing their home for radon. Everyone knows that they are one of many families in their community who are taking their radon exposure seriously.”

Radon is an odourless and colourless, radioactive soil gas that can build up to dangerous levels in indoor air, making it the leading cause of lung cancer in non-smokers. Radon exposure also compounds the risk of lung cancer for people with other risk factors. The uranium rich geology of the soil across Canada provides a high potential for elevated radon levels in homes. This project used C-NRPP listed long-term radon test kits as recommend by Health Canada.

BC oncologist Dr. Khoo has shared his story of lung cancer diagnosis and radon testing and mitigation journey, “I urge every homeowner to protect their family’s health by checking for

draft



## New, free lung cancer screening program in BC

The BC Cancer Agency is expanding its low dose CT screening to non-smokers (<100 cigarettes in lifetime) who meet the following criteria

Women **45-74 years**

Men **50-74 years**

*and*

Radon Exposure

Long term (91-day Radon test) result at **800 (Bq/m<sup>3</sup>)** or greater

Lived in home for 3 years or more

Where: **Kelowna**- BC Cancer site or **Vancouver**

Who to contact? Study Coordinator- 1-604-675-8096 or [idealstudybc@gmail.com](mailto:idealstudybc@gmail.com)

**Recruitment open now**



# C-NRPP Professionals

- Certified Mitigation Professionals course in both Measurement and Mitigation
- C-NRPP Mitigation Professionals are required to have insurance

List of professionals available at  
[www.c-nrpp.ca/find-a-professional/](http://www.c-nrpp.ca/find-a-professional/)



**C-NRPP**  
CANADIAN – NATIONAL RADON PROFICIENCY PROGRAM

## FIND A PROFESSIONAL

C-NRPP Certified professionals are certified to work in every province and territory in Canada  
Please ask the Professional if you have questions about their service area.

**A C-NRPP Mitigation Professional will help you lower your radon levels.**

**To locate a radon professional in your area, please select a search method below and provide the necessary search terms.**

☒ Search by postal code: Postal Code  Distance

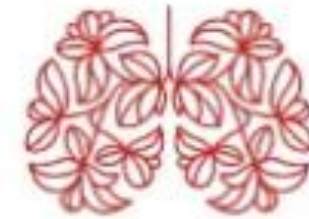
☐ Search by province: Province

Search for

## LUNGS MATTER

Financial support for  
home radon  
mitigation

Radon is the second-leading cause of lung cancer in Canada...it can also be

Lungs Matter  
Home Radon Mitigation Grant ProgramB R E A T H E  
the lung association

In Partnership with



The Canadian Lung Association has recently launched a new grant program to help people across Canada afford radon mitigation services.

The Lungs Matter Grant Program aims to provide financial support to individuals who have been diagnosed with lung cancer and individuals considered a low-moderate income households with priority given to the low-income households.

<https://www.lung.ca/lungs-matter-radon-mitigation-support>



# Tax Credit for Radon Measurements

Those working from home can claim the expense of testing their workspace for radon!

**Learn more on our website.**

**[www.carst.ca/HomeownerHealth#CRA](http://www.carst.ca/HomeownerHealth#CRA)**



BREATHE  
the lung association

# Radon Action Examples in Canada:

Across Canada, some actions taken by governments and other institutions include:

- Radon reduction requirements in building codes,
- Promoting radon awareness and testing on websites,
- Testing of public buildings: government offices, schools, daycares, and social housing,
- Inclusion of radon in real estate Property Disclosure Statements and guidance on professional obligations for real estate agents to treat radon as a latent defect,
- Coverage for elevated radon in New Home Warranty claims,
- Requirement of radon mitigation in rental properties by some tribunals for landlord-tenant disputes; and,
- Clarifying guidelines for radon in the workplace.



# Radon Action Guides - Health Canada

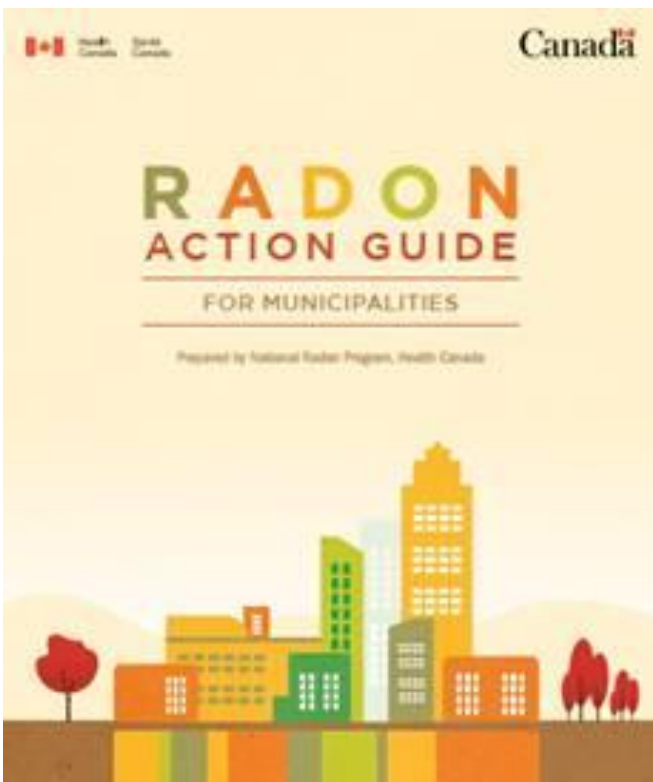
Health Canada's National Radon Program has developed Radon Action Guides designed to help provinces, territories, and municipalities across Canada develop programs and policies to address radon.

The Radon Action Guide for Municipalities describes:

- why municipalities should take action
- how to create radon action strategies
- important steps to take to reduce radon-induced lung cancer in communities

Municipalities can become leaders in advancing radon action through:

- policy development
- education and awareness
- creating databases and maps
- supporting community testing
- enforcing radon provisions in Building Codes

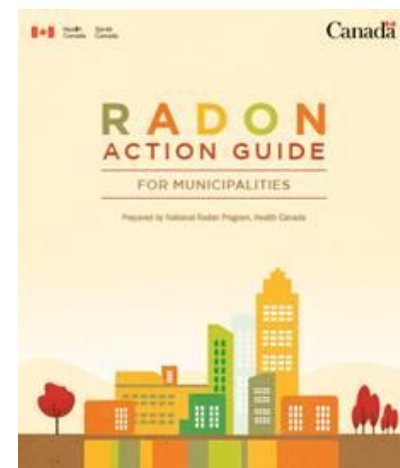


<https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/radon/action-guides/municipalities.html>

# Radon Action Guide:

How to create radon action strategies?

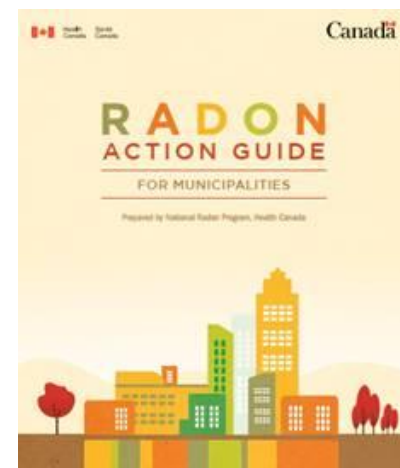
*Every good strategy, starts with a plan.*



- ☐ Develop RADON PLANS and include collaboration, consultation, partnerships, and independent organizations that have a strong presence at the local level and can play an important role concerning radon.

## Core features of a Radon Action Plan, include:

- ☐ Delivering annual public education and awareness campaigns during November, Radon Action Month in Canada.
- ☐ Conducting community testing to gain better understanding of local radon levels.
- ☐ Adopting goals of reducing indoor radon exposure in the community.
- ☐ Establishing specific bylaws and operating policies covering building code enforcement, rental accommodation, municipal owned buildings, and publicly accessible places.
- ☐ Consider selling test kits as a way to increase testing, provide low cost options and collect radon data in their communities.
- ☐ Consider setting up a radon monitor lending program



# Radon Action Guide continued:

Important steps to take to reduce radon-induced lung cancer in communities

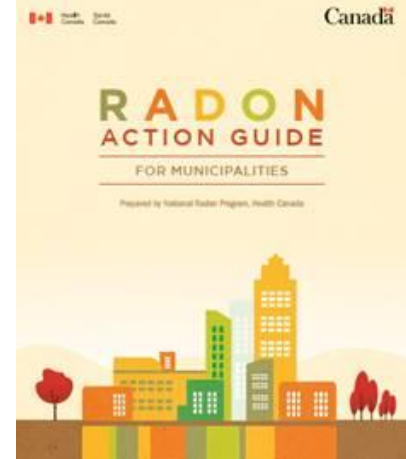
**Risk management:** Municipalities are employers, building owners and operators and at times landlords - general duties to ensure spaces are safe. Municipalities are also subject to a duty of care when inspecting buildings.

- ☐ Municipality owned/occupied buildings for radon and reduce high levels
- ☐ Provide training to building officials on updated building codes with respect to radon
- ☐ Addressing radon in social housing is an ethical and socially responsible action for municipalities to take. In some cases, municipalities may also control schools, daycares, and other facilities for which radon action is also important.

**Increasing value of building stock:** Certified mitigators can reduce radon levels to safe levels, which can become a selling feature because it assures users and owners that radon has been dealt with, increasing the value of the home or business.

- ☐ Support local business development and encourage local companies to become C-NRPP certified
- ☐ Provide financial support through grants/subsidies to support the cost of radon mitigation





## Radon Action Guide continued:

**Legal Powers:** Most provinces' municipal legislation mentions protecting health and safety as part of the general purposes of a municipality or allows for bylaws concerning health.

Municipalities enforce areas which make up core components of radon policy, including:

- ☐ building codes
- ☐ construction permits
- ☐ standards of maintenance for rental accommodation
- ☐ air quality in indoor public spaces (as is currently done for smoking)



*Thank you for your participation in this program!*

[www.takeactiononradon.ca](http://www.takeactiononradon.ca)

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