

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Leslie Middle School

Report to: Vonnie B. Good, EHS Salem-Keizer Public Schools

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Reviewed By: DeEtta Burrows, MSPH, CIH

On-site: March 29, 2021

Report: April 1, 2021

PURPOSE

Radon retesting was done at Leslie Middle School to determine if there have been any changes in the background radon levels in the classrooms, offices and other rooms that are in contact with the ground since the 2014 tests.

This testing is a requirement in ORS 332 Healthy and Safe Schools Plan rules.

CONCLUSION

All tested rooms had low levels of radon.

TESTING

Radon testing was conducted using protocols recommended by the Oregon Health Authority per ORS 332.166-167. Radon Air-Chek short-term test devices were used in the rooms by suspending the device in each room. The testing occurred from March 29 through April 1, 2021 during normal and routine school ventilation system operation. Weather conditions during the weeks prior of testing had been wet with cold to moderate temperatures.

Quality assurance testing was also conducted by utilizing laboratory spiked test devices, (QCS), blank (QCB) test devices, and duplicate samples per the recommendations found in ORS 332.166-167.

EPA RADON GUIDELINES

The EPA has set an Action Level of 4.0 pCi/L (picoCuries per liter) for schools. If classrooms, offices or buildings have radon levels at or above 4.0 pCi/L, EPA recommends that schools take action to reduce the level. These actions include:

Step 1. If your result is 4.0 pCi/L or higher take a follow-up test (Step 2) to be sure.

Step 2. Follow up with either a long-term test or a second short-term test.

The World Health Organization has set their action level at 2.7 pCi/L. Salem-Keizer Public Schools has determined that 2.7 pCi/L is a target level where retesting should be done.

CONTROL OF RADON LEVELS IN SCHOOLS

The major control mechanism for lowering radon levels within school buildings is the use of dilution ventilation. If the amount of outside air delivered into a building increases, the radon levels should decrease.

Radon test result report for:

**LESLIE
MAIN**

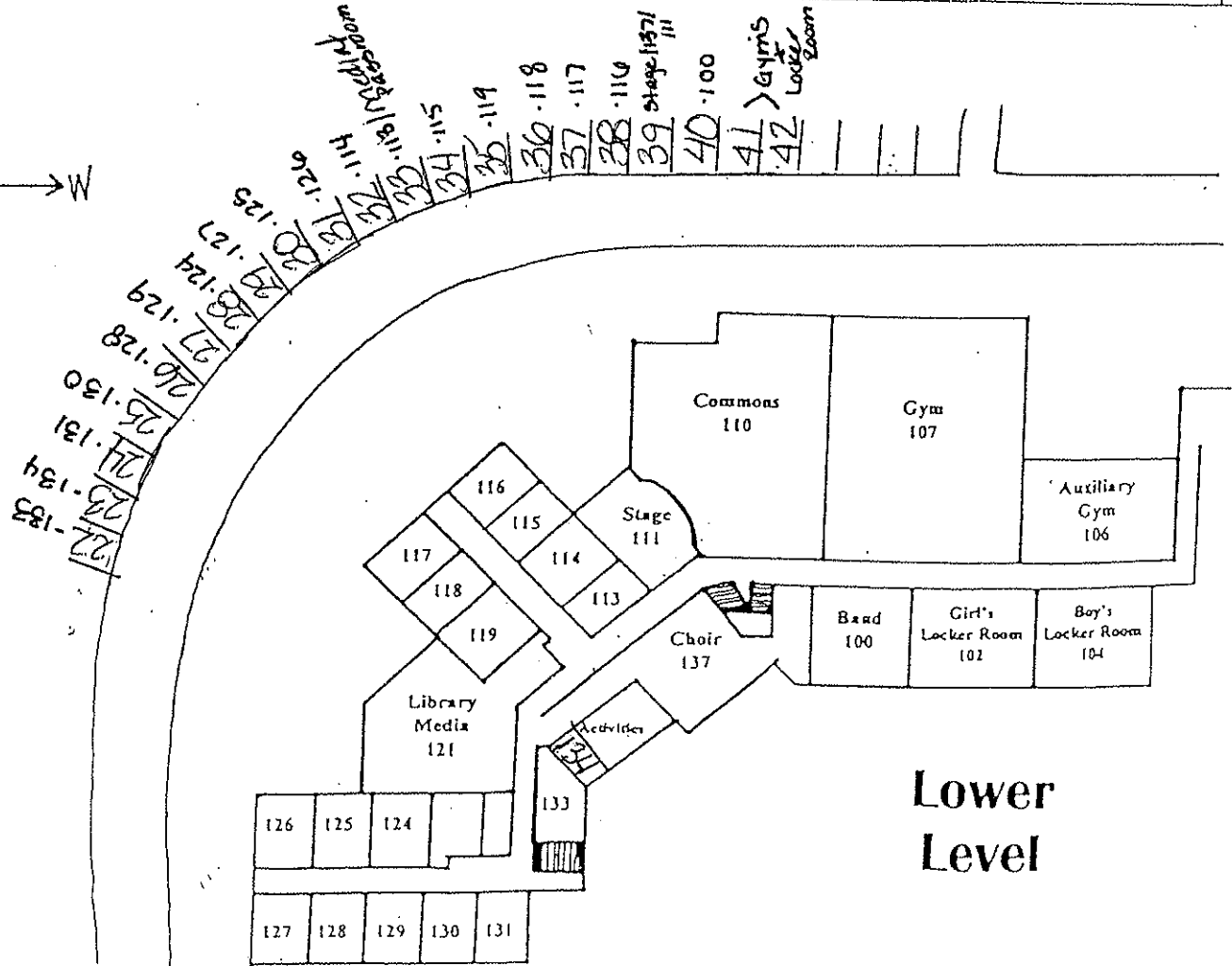
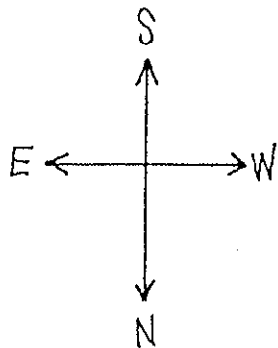
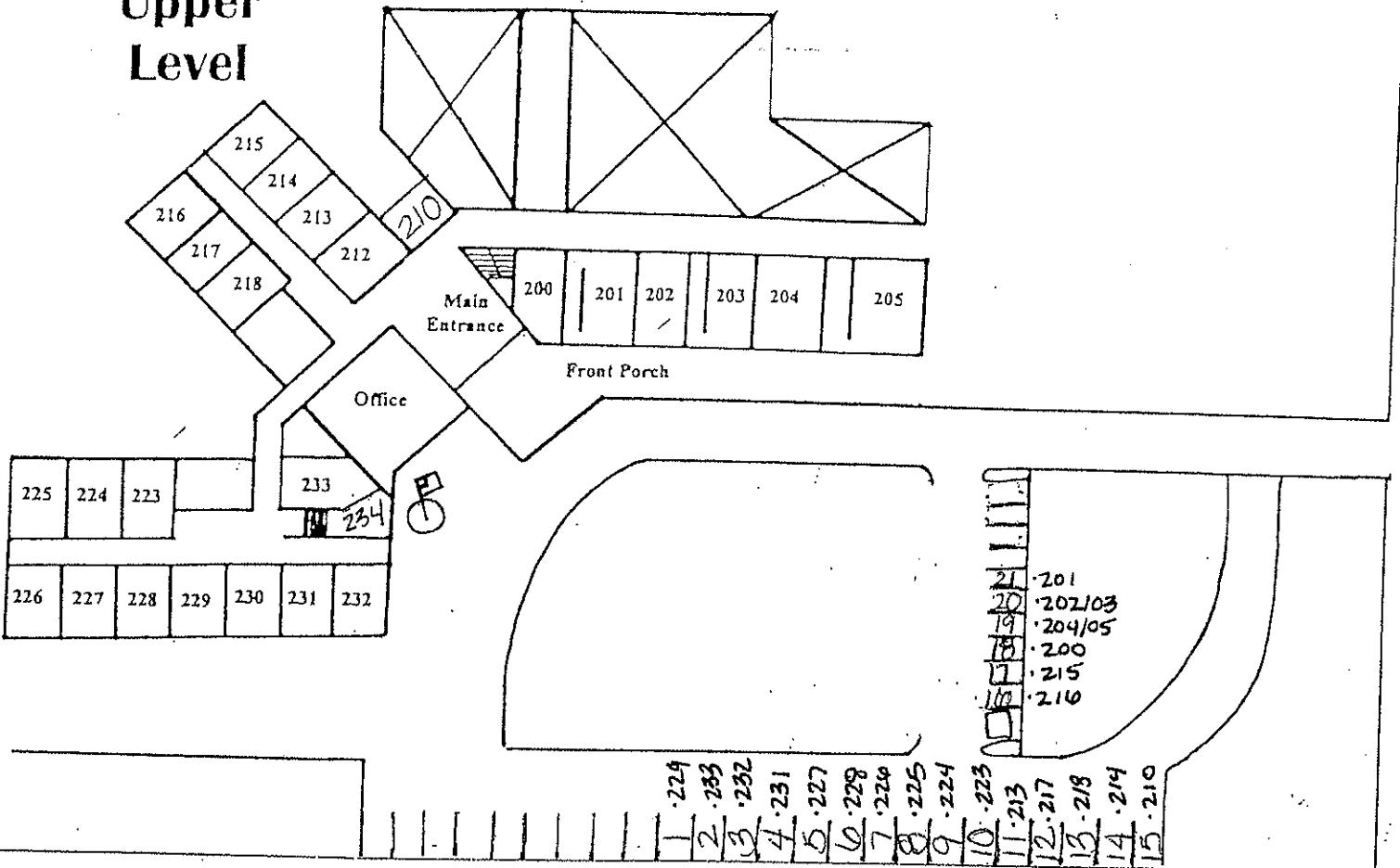
Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9604501	100 E	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604556	100 N	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604502	100 OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604503	100 PRACTICE 1	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604504	100 PRACTICE 2	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9601800	100 W	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.5 ± 0.3	2021-04-02
9604505	102 GIRLS LOCKER RM	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.5 ± 0.3	2021-04-02
9604506	102 GIRLS PE OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.7 ± 0.3	2021-04-02
9604508	104 BOYS PE OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.7 ± 0.3	2021-04-02
9604509	106 AUX GYM N	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604510	106 AUX GYM S	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604521	113	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604522	113 OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604523	114 E	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604524	114 W	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604525	115	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604526	116	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604527	117	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604528	118	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604529	119	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604530	119 PREP	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604531	121 MEDIA	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604537	122 WORK ROOM	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604540	124 PREP	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604538	124N	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604539	124S	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604541	125	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604542	126	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604543	127	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604544	128	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604545	129	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604546	130	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.5 ± 0.3	2021-04-02
9604547	130 OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.6 ± 0.3	2021-04-02
9604548	131 E	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604549	131NW	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604550	133	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604551	134	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02

Radon test result report for:**LESLIE
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9604553	135	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604552	136	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604554	137	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604555	137 OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604518	COMMONS N	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604517	COMMONS S	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604532	GROUP STUDY	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604535	INSTRUCTIONAL COACH	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604515	KITCHEN	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604516	KITCHEN OFFICE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604536	LIBRARIAN OFFICE 122	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604514	MAIN GYM E	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604513	MAIN GYM W	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604511	NEW AUX GYM E	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604512	NEW AUX GYM W	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604557	QCB1	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	0.5 ± 0.3	2021-04-02
9604558	QCB2	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604559	QCB3	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604560	QCB4	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604520	RM 111 STAGE	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604534	SPEECH THERAPIST	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604533	STAFF COPIER RM	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02
9604519	STAFF LUNCH RM	2021-03-29 @ 11:00 am	2021-04-01 @ 10:00 am	< 0.3	2021-04-02

Leslie Middle School Emergency Evacuation Plan Map

Upper Level



Lower Level

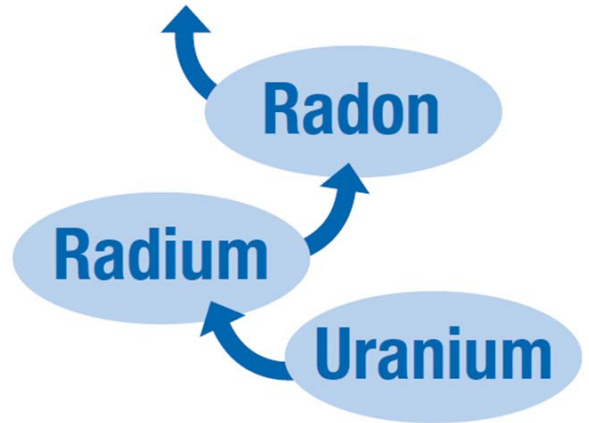
Radon in schools

Fact Sheet on Radon Exposure for Students and Staff



What is radon?

Radon is a radioactive gas you can't see, smell or taste. It is a decay product of uranium and is found all over the world. Uranium and its decay products are naturally found in the soil and rocks beneath buildings. Our school image (right) shows how uranium naturally decays into radium that further breaks down into radon gas. Radon moves up through the soil and enters buildings in contact.



Why is radon a problem in Oregon schools?

Radon is the 2nd leading cause of lung cancer, after smoking. The Environmental Protection Agency (EPA) estimates around 21,000 radon-related lung cancer deaths occur each year. Breathing high levels of radon in combination with smoking is even more dangerous and increases your risk by ten times.

Home is likely the most significant source for breathing radon. According to the EPA, 1 out of 15 homes has high radon levels. School is likely the second largest source of radon exposure for students and staff. The only way to know your radon levels is to test. The EPA recommends that **all** homes and schools be tested for radon.

EPA ACTION LEVEL

4.0 Picocuries / Liter of air

Testing at Home

Radon testing at home can be simple and inexpensive. You can find do-it-yourself test kits at most local hardware stores and online from the [American Lung Association](http://www.AmericanLungAssociation.org). Oregon Health Authority (OHA) Radon Program also offers FREE test kits to those living in areas where little data is available. To find out if you are eligible, contact radon.program@state.or.us.

Testing in Oregon Schools

By law (ORS 332.166-167), all Oregon schools are required to test for radon before January 1, 2021.

School radon testing involves the placement of small testing devices in all frequently occupied rooms on the lowest level of the building. Initial testing is short-term and lasts between 2 and 7 days. Test devices are not dangerous in any way.

Rooms that test at or above 4.0 picocuries per liter of air (pCi/L) (EPA recommended action level) are subject to longer confirmation testing and radon reduction systems.

*Test results for your school can be found at:

For more information about radon, visit www.healthoregon.org/radon.

If you have other questions or concerns about radon testing at your school, contact _____ at _____.

