

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Gubser Elementary School

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

By: Kathy Ellis, Senior Industrial Hygiene Consultant

Reviewed By: DeEtta Burrows, MSPH, CIH - Wise Steps, Inc.

On-site: March 14 - 17, 2022

Report: March 29, 2022

PURPOSE

Radon retesting was done at Gubser Elementary 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 2013 tests. Gubser Elementary School has also undergone a major construction project that included additional classrooms, offices and workspaces. These new areas also needed to be tested for radon levels.

This testing is a requirement in OAR 332.331 Healthy and Safe Schools Plan rules.

CONCLUSION and RECOMMENDATIONS

All tested rooms had low to non-detectable levels of radon.

TESTING

Radon testing was conducted using protocols recommended by the Oregon Health Authority per OAR 332.345. Radon Air-Chek short-term test devices were used in the rooms by suspending the device in each room. The testing occurred from March 14-17, 2022, during normal and routine school ventilation system operation. Weather conditions during the weeks prior to testing had been wet with moderate temperatures.

This testing was conducted under COVID-19 recommended precautions of having increased outside air supplied to the building.

Quality assurance testing was also conducted by blank (QCB) test devices, and duplicate samples per the recommendations found in OAR 332.345.

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.

March 18, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**GUBSER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11118625	A1	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118624	A2	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118623	A3	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118621	A4	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118622	A4	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118619	A6	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	???? IF1	2022-03-18
11118666	A7	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118667	A7 OFFICE	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118626	A8	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	0.5 ± 0.3	2022-03-18
11118656	B1	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	0.5 ± 0.3	2022-03-18
11118655	B2	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118650	B3	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	0.5 ± 0.3	2022-03-18
11118649	B4	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118648	B4	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118647	B5	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118646	B6	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118663	BEHAVIOR CADRE	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118644	C1	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118643	C2	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118642	C3	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118641	C4	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118640	C4	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118639	C5	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118638	C6	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118631	CAFé CUSTODIAN OFF	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	0.9 ± 0.3	2022-03-18
11118633	CAFETERIA N	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118632	CAFETERIA S	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118618	CONFERENCE RM	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118661	COUNSELING OFFICE	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	0.6 ± 0.3	2022-03-18
11118627	CUSTODIAL OFFICE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118645	D1	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118651	D2	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118652	D3	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118654	D4	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118653	D4	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118629	GYM SE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118630	GYM W	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	0.6 ± 0.3	2022-03-18

March 18, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**GUBSER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11118668	ISOLATION	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	0.6 ± 0.3	2022-03-18
11118634	KITCHEN OFFICE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118617	MAIN OFFICE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	0.6 ± 0.3	2022-03-18
11118657	MEDIA CENTER N	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	0.5 ± 0.3	2022-03-18
11118659	MEDIA CENTER S	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	0.6 ± 0.3	2022-03-18
11118637	MEDIA OFFICE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118658	MEIDA CENTER OFFFICE	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118662	MENTOR	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118636	MUSIC RM	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	0.5 ± 0.3	2022-03-18
11118628	PE OFFICE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118665	PRINCIPAL	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118669	QCB1	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118670	QCB2	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118671	QCB3	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18
11118635	STAFF LOUNGE	2022-03-14 @ 9:00 am	2022-03-17 @ 8:00 am	< 0.3	2022-03-18
11118660	SUPPORT CENTER	2022-03-14 @ 9:00 am	2022-03-17 @ 9:00 am	0.5 ± 0.3	2022-03-18
11118664	SUPPORT CENTER OFFICE	2022-03-14 @ 10:00 am	2022-03-17 @ 9:00 am	< 0.3	2022-03-18

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

Note: QCB1-3 are blank samples and part of the quality control process for radon testing.