



November 13, 2018

Dave Peterson  
Hillsboro School District  
4901 SE Witch Hazel Road  
Hillsboro, Oregon 97123

Via email:       petersod@hsd.k12.or.us

Regarding:       District Wide Radon Testing  
                  Groner Elementary School  
                  23405 SW Scholls Ferry Road  
                  Hillsboro, Oregon  
                  PBS Project 23440.024, Phase 0003

Dear Mr. Peterson:

From October 15 to October 18, 2018, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at Groner Elementary School located at 23405 SW Scholls Ferry Road in Hillsboro, Oregon.

The Environmental Protection Agency (EPA) and Oregon Health Authority (OHA) recommend that buildings be tested for radon and that any radon concentrations be maintained below 4.0 picocuries per liter (pCi/L) of air. PBS used AirChek, Inc. brand single-use, short-term radon test kits to measure radon levels in frequently-occupied rooms that are in contact with the ground or above unoccupied basements or crawlspaces.

**Laboratory results indicate all short-term radon tests at Groner Elementary School tested below 4.0 pCi/L.**

See the attached Laboratory Analysis Report for more details.

In addition to the EPA recommendation that radon concentrations not exceed 4.0 pCi/L, OHA recommends the following steps be conducted based on the results of a room's initial short-term test:

- **If the result is less than 2.0 pCi/L**, school districts are required to test again every 10 years, per Oregon Revised Statute 332.166-167.
- **If the result is between 2.0 pCi/L and 4.0 pCi/L**, consider fixing (i.e., lowering) the radon in that room.
- **If the result is from 4.0 pCi/L to 8.0 pCi/L**, perform a follow-up measurement of that room using a long-term test. This test should be conducted over as much of a nine-month school year as possible, when the room is likely to be occupied. If that result is equal to or greater than 4.0 pCi/L, the radon in the room should be fixed (i.e., lowered).
- **If the initial short-term test result is equal to or greater than 8.0 pCi/L**, conduct a second short-term test and average its result with the initial short-term test result. If the average of the two is equal to or greater than 4.0 pCi/L, radon in the room should be fixed (i.e., lowered).

Note: A great difference in the results of the short-term tests may indicate a flaw in the testing process. Investigate and consider retesting. For situations in which one of the test results is equal to or greater than 4.0 pCi/L, if the higher result is two or more times the lower result, repeat the test.

### **LIMITATIONS OF SCOPE**

This study was limited to the tests and locations as previously indicated. The site as a whole may have other environmental concerns that will not be characterized by this study. The findings and conclusions of this work are not scientific certainties, but probabilities based on professional judgment concerning the significance of the data gathered during the course of this investigation. PBS is not able to represent conditions on the site or adjoining sites beyond those detected or observed by PBS.

Please feel free to contact me at 503.935.5484 or [dale.voeller@pbsusa.com](mailto:dale.voeller@pbsusa.com) with any questions or comments.

Sincerely,

Dale Voeller, CHMM, CSP  
Senior Project Manager

Attachment: AirChek, Inc Laboratory Analysis Report

SG::dsv

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9119218	CLASS 10	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.8 ± 0.2	2018-10-19
9119226	CLASS 14 BLANK	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	< 0.3	2018-10-19
9119229	CLASS 16 DUP	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	2.0 ± 0.3	2018-10-19
9119219	CLASS 2 DUP	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.2 ± 0.2	2018-10-19
9119215	CLASSROOM 1	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.6 ± 0.2	2018-10-19
9119232	CLASSROOM 12	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.6 ± 0.2	2018-10-19
9119227	CLASSROOM 13	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	0.9 ± 0.2	2018-10-19
9119223	CLASSROOM 14	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.8 ± 0.2	2018-10-19
9119228	CLASSROOM 16	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.7 ± 0.2	2018-10-19
9119220	CLASSROOM 2	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.3 ± 0.2	2018-10-19
9119221	CLASSROOM 3	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.7 ± 0.2	2018-10-19
9119214	CLASSROOM 4	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.4 ± 0.2	2018-10-19
9119213	CLASSROOM 5	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.3 ± 0.2	2018-10-19
9119211	CLASSROOM 6	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.6 ± 0.2	2018-10-19
9119212	CLASSROOM 7	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.7 ± 0.2	2018-10-19
9119208	CLASSROOM 8	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.2 ± 0.2	2018-10-19
9119207	CLASSROOM 9	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.8 ± 0.2	2018-10-19
9119230	CUSTODIAL OFFICE	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	2.7 ± 0.3	2018-10-19
9119203	HEALTH	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.3 ± 0.3	2018-10-19
9119204	KITCHEN 1	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.5 ± 0.2	2018-10-19
9119210	KITCHEN 2	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.5 ± 0.3	2018-10-19
9119216	LIBRARY 1	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.3 ± 0.2	2018-10-19
9119217	LIBRARY 2	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.2 ± 0.2	2018-10-19
9119222	LIBRARY 2 DUP	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.5 ± 0.2	2018-10-19
9119202	MAIN OFFICE	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.3 ± 0.2	2018-10-19
9119236	P1	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	0.8 ± 0.2	2018-10-19
9119235	P2	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.0 ± 0.2	2018-10-19
9119205	PRINCIPAL	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.1 ± 0.2	2018-10-19
9119234	ROOM 15	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	2.0 ± 0.3	2018-10-19
9119224	ROOM 15 BLANK	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	< 0.3	2018-10-19
9119225	SENSORY ROOM	2018-10-15 @ 10:00 am	2018-10-18 @ 11:00 am	1.1 ± 0.2	2018-10-19
9119206	TEACHERS LOUNGE	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.3 ± 0.3	2018-10-19
9119209	THE CAVE	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.0 ± 0.2	2018-10-19
9119201	WORK ROOM	2018-10-15 @ 9:00 am	2018-10-18 @ 11:00 am	1.6 ± 0.2	2018-10-19