



November 7, 2017

Casey Waletich
Executive Director of Facilities, Safety, and Operations
Hillsboro School District
4901 SE Witch Hazel Road
Hillsboro, Oregon 97123

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

Regarding: District Wide Radon Testing
W. Verne McKinney Elementary School
535 NW Darnielle Street
Hillsboro, Oregon
PBS Project 23440.024, Phase 0002

Dear Mr. Waletich:

From October 24 to October 27, 2017, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at W. Verne McKinney Elementary School located at 535 NW Darnielle Street 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 Air Chek, 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 W. Verne McKinney 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 503.417.7694 or chris.boyce@pbsusa.com with any questions or comments.

Sincerely,



Chris Boyce
Project Manager

Attachment: AirChek, Inc Laboratory Analysis Report

CB::bmp

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7956765	ADMIN	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956761	COUNSELOR	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	0.7 ± 0.2	2017-10-30
7956797	GR 1&2 ACTIVITY	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.2	2017-10-30
7956766	GR 3&4 ACTIVITY	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.6 ± 0.3	2017-10-30
7956774	GR 5&6 ACTIVITY	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.3	2017-10-30
7956793	GRADE 1 NW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956786	GRADE 1 OFFICE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.7 ± 0.2	2017-10-30
7956784	GRADE 1 SE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.2	2017-10-30
7956785	GRADE 1 SW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956764	GRADE 1 SW DUP	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.2	2017-10-30
7956796	GRADE 2 NE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956787	GRADE 2 OFFICE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.2	2017-10-30
7956795	GRADE 2 SE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.2	2017-10-30
7956794	GRADE 2 SW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.7 ± 0.2	2017-10-30
7956768	GRADE 3 NE	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.8 ± 0.3	2017-10-30
7956769	GRADE 3 NW	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.6 ± 0.3	2017-10-30
7956767	GRADE 3 OFFICE	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.4 ± 0.3	2017-10-30
7956770	GRADE 3 SW	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.5 ± 0.3	2017-10-30
7956777	GRADE 4 NE	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	3.4 ± 0.3	2017-10-30
7956776	GRADE 4 NW	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.5 ± 0.3	2017-10-30
7956756	GRADE 4 OFF BLAN	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.5 ± 0.3	2017-10-30
7956775	GRADE 4 OFFICE	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	2.6 ± 0.3	2017-10-30
7956778	GRADE 4 SE	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	3.0 ± 0.3	2017-10-30
7956781	GRADE 5 NE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.8 ± 0.3	2017-10-30
7956780	GRADE 5 NW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.2	2017-10-30
7956782	GRADE 5 OFFICE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.3	2017-10-30
7956779	GRADE 5 SW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.3	2017-10-30
7956763	GRADE 5 SW DUP	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.3	2017-10-30
7956754	GRADE 6 NW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.3	2017-10-30
7956783	GRADE 6 OFFICE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	1.0 ± 0.3	2017-10-30
7956755	GRADE 6 SE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.3	2017-10-30
7956773	GRADE 6 SW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	1.1 ± 0.3	2017-10-30
7956788	GYM 1	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.5 ± 0.2	2017-10-30
7956800	GYM 2	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956799	GYM 2 DUP	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956798	GYM OFFICE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956759	HEALTH	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	0.7 ± 0.3	2017-10-30

October 30, 2017

**** LABORATORY ANALYSIS REPORT ****

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7956791	KINDER NE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.7 ± 0.2	2017-10-30
7956790	KINDER NE BLANK	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956792	KINDER SE	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956789	KINDER SW	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.7 ± 0.2	2017-10-30
7956752	LIBRARY 1	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	1.1 ± 0.3	2017-10-30
7956772	LIBRARY 1 DUP	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	1.1 ± 0.3	2017-10-30
7956771	LIBRARY 2	2017-10-24 @ 2:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.3	2017-10-30
7956760	MUSIC	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	< 0.3	2017-10-30
7956757	PRINCIPAL	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	0.6 ± 0.2	2017-10-30
7956762	SPEECH	2017-10-24 @ 1:00 pm	2017-10-27 @ 1:00 pm	0.9 ± 0.2	2017-10-30

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