



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  
                  Minter Bridge Elementary School  
                  1750 SE Jacquelin Drive  
                  Hillsboro, Oregon  
                  PBS Project 23440.024, Phase 0003

Dear Mr. Peterson:

From October 29 to November 1, 2018, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at Minter Bridge Elementary School located at 1750 SE Jacquelin Drive 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 Minter Bridge 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:  
**MINTER BRIDGE**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9123950	BIRKLE. OFF. DUP	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	2.8 ± 0.2	2018-11-02
9123940	DOLPHIN CTR	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123928	DOLPHIN CTR. DUP	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.6 ± 0.2	2018-11-02
9123905	FACULTY BREAK RM	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123902	GYM 1	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.1 ± 0.2	2018-11-02
9123901	GYM 2	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.2 ± 0.2	2018-11-02
9123907	GYM OFFICE	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.1 ± 0.2	2018-11-02
9123903	HEALTH ROOM	2018-10-29 @ 10:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123910	IMC 1	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.6 ± 0.2	2018-11-02
9123916	IMC 2	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123914	KINDERGARTEN RM	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.1 ± 0.2	2018-11-02
9123949	MR. BIRKLE	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123946	MR. BIRKLE OFFIC	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	2.9 ± 0.3	2018-11-02
9123931	MR. DE LEON	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123945	MR. LOPEZ	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123923	MR. MAGNUSON	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123921	MR. MARTINEZ	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123912	MRS. HERNANDEZ	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.5 ± 0.2	2018-11-02
9123920	MRS. HILES ROOM	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123937	MRS. MARTINAK	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123929	MRS. MURPH COMMO	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.6 ± 0.2	2018-11-02
9123926	MRS. MURPHEY	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.5 ± 0.2	2018-11-02
9123935	MRS. MURPHEY OFF	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123911	MS HANCOCK	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	< 0.3	2018-11-02
9123925	MS HILES WORK RM	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.6 ± 0.2	2018-11-02
9123906	MS. ADZIMA RM	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123942	MS. AVILA	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123938	MS. AVILA COMMON	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	1.1 ± 0.2	2018-11-02
9123939	MS. AVILA OF BLA	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	< 0.3	2018-11-02
9123933	MS. AVILA OFFICE	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	2.8 ± 0.3	2018-11-02
9123917	MS. CANOVA	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.6 ± 0.2	2018-11-02
9123932	MS. CARLSON	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.5 ± 0.2	2018-11-02
9123924	MS. CARLSON BLAN	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	< 0.3	2018-11-02
9123927	MS. CUEVAS TROL	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123944	MS. GARCIA	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123918	MS. HARTFEIL	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123915	MS. HILES COMMON	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02

Radon test result report for:  
**MINTER BRIDGE  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9123919	MS. HILES DUP	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123941	MS. LEWIS	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.6 ± 0.2	2018-11-02
9123930	MS. MAUNU	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123922	MS. MAYERS	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.4 ± 0.2	2018-11-02
9123936	MS. SMALE	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123947	MS. SMITH	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123948	MS. SMITH DUP	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123934	MS. TOFAEONO	2018-10-29 @ 11:00 am	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123909	OFFICE MAIN	2018-10-29 @ 10:00 am	2018-11-01 @ 11:00 am	0.8 ± 0.2	2018-11-02
9123904	OFFICE WORK ROOM	2018-10-29 @ 10:00 am	2018-11-01 @ 11:00 am	0.5 ± 0.2	2018-11-02
9123908	PRINCIPAL OFFICE	2018-10-29 @ 10:00 am	2018-11-01 @ 11:00 am	0.7 ± 0.2	2018-11-02
9123943	WRITING CENT DUP	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	1.0 ± 0.2	2018-11-02
9123913	WRITING CENTER	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	1.1 ± 0.2	2018-11-02

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November 2, 2018

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:  
**MINTER BRIDGE  
PORTABLE**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9123953	PORT 1	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	< 0.3	2018-11-02
9123954	PORT 1 BLANK	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	< 0.3	2018-11-02
9123952	PORT 2	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	< 0.3	2018-11-02
9123951	PORT 2 OFFICE	2018-10-29 @ 12:00 pm	2018-11-01 @ 11:00 am	< 0.3	2018-11-02

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