



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
Orenco Elementary School
7050 Northeast Birch Street
Hillsboro, Oregon 97124
PBS Project 23440.024, Phase 0002

Dear Mr. Waletich:

From October 10 to October 13, 2017, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at Orenco Elementary School located at 7050 Northeast Birch 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 Orenco Elementary School tested below 4.0 pCi/L.

One test kit deployed in the computer lab was lost, damaged or tampered with and therefore not sent to the lab for analysis.

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:**ORENCO
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7888818	ACTIVITY 1	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888824	ACTIVITY 2	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888805	ADMIN	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7889078	CAFETERIA	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7889092	CAFETERIA	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	0.6 ± 0.2	2017-10-16
7888821	COUNSELOR	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7889091	CUST OFFICE	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7889069	GYM	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	0.7 ± 0.3	2017-10-16
7888988	GYM	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	0.6 ± 0.3	2017-10-16
7889076	GYM	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7889082	GYM OFFICE	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	1.2 ± 0.3	2017-10-16
7888807	HEALTH	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	0.6 ± 0.2	2017-10-16
7889090	KITCH OFF BLANK	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7889098	KITCHEN	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7889089	KITCHEN OFFICE	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	0.6 ± 0.3	2017-10-16
7888814	MEDIA CENTER	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888808	MEDIA CENTER	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888809	MEDIA OFFICE	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7889083	MUSIC	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7889084	MUSIC DUP	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888806	PRINCIPAL	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888829	ROOM 101	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888830	ROOM 101 OFFICE	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888810	ROOM 102	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888817	ROOM 102 OFFICE	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888996	ROOM 103	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888995	ROOM 104	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7889000	ROOM 104 DUP	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	0.6 ± 0.3	2017-10-16
7888994	ROOM 105	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888990	ROOM 106	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888989	ROOM 107	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888987	ROOM 108	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	0.5 ± 0.2	2017-10-16
7888825	ROOM 109	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888826	ROOM 109 DUP	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888815	ROOM 110	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888831	ROOM 110 DUP	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888993	ROOM 111	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16

November 7, 2017

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**ORENCO
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7888816	ROOM 112	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888823	ROOM 113	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888998	ROOM 114	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888822	SMALL GROUP	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888999	SMALL GROUP 2	2017-10-10 @ 12:00 pm	2017-10-13 @ 10:00 am	0.6 ± 0.3	2017-10-16
7888997	SMALL GROUP 4	2017-10-10 @ 12:00 pm	2017-10-13 @ 11:00 am	< 0.3	2017-10-16
7888802	STAFF LOUNGE	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16
7888801	VICE PRINC	2017-10-10 @ 11:00 am	2017-10-13 @ 10:00 am	< 0.3	2017-10-16

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