



May 2, 2018

David Callaway
David Douglas School District
11300 NE Halsey Street
Portland, Oregon 97220

Via email: david_callaway@ddsd40.org

Regarding: Follow-up Radon Testing
Menlo Park Elementary School
12900 NE Glisan Street
Portland, Oregon 97230
PBS Project 23179.043, Phase 0002

Dear Mr. Callaway:

From April 23 to April 26, 2018, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Menlo Park Elementary School located at 12900 NE Glisan Street in Portland, 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 locations where initial short-term radon test results were above the action level (4.0 pCi/L). This round of follow-up testing was completed after adjustments had been made to the building ventilation system. The following table lists all samples in which radon levels remain above the EPA action level.

Test Kits with Radon 4.0 pCi/L or Above

Test Kit Number	Sample location	Radon Level (pCi/L)
9014584	QUIET ROOM	7.1
9014587	GYM OFFICE	5.9
9014588	GYM OFFICE - Duplicate	6.0

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 that 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 503.515.4726 or dale.voeller@pbsusa.com with any questions or comments.

Sincerely,



Dale Voeller, CHMM, CSP
Senior Project Manager

Attachment: Air Chek, Inc., Laboratory Analysis Report

April 30, 2018

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**MENLO PARK
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9014591	10	2018-04-23 @ 3:00 pm	2018-04-26 @ 2:00 pm	1.5 ± 0.2	2018-04-27
9014590	11	2018-04-23 @ 3:00 pm	2018-04-26 @ 2:00 pm	1.2 ± 0.2	2018-04-27
9014589	11 DUP	2018-04-23 @ 3:00 pm	2018-04-26 @ 2:00 pm	1.1 ± 0.2	2018-04-27
9014578	12	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	0.9 ± 0.2	2018-04-27
9014579	15	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.3 ± 0.2	2018-04-27
9014580	17	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.1 ± 0.2	2018-04-27
9014581	18	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.0 ± 0.2	2018-04-27
9014582	20	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	3.4 ± 0.3	2018-04-27
9014573	3	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	0.8 ± 0.2	2018-04-27
9014574	4	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	0.5 ± 0.2	2018-04-27
9014575	5	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	0.9 ± 0.2	2018-04-27
9014576	6	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	0.8 ± 0.2	2018-04-27
9014577	7	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	< 0.3	2018-04-27
9014583	ERC	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.5 ± 0.2	2018-04-27
9014586	GYM 1	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.4 ± 0.2	2018-04-27
9014585	GYM 2	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.3 ± 0.2	2018-04-27
9014587	GYM OFFICE	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	5.9 ± 0.4	2018-04-27
9014588	GYM OFFICE DUP	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	6.0 ± 0.4	2018-04-27
9014570	KITCHEN OFFICE	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.9 ± 0.2	2018-04-27
9014571	MULTIPURPOSE 1	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.0 ± 0.2	2018-04-27
9014572	MULTIPURPOSE 2	2018-04-23 @ 2:00 pm	2018-04-26 @ 2:00 pm	1.2 ± 0.2	2018-04-27
9014584	QUIET ROOM	2018-04-23 @ 3:00 pm	2018-04-26 @ 2:00 pm	7.1 ± 0.4	2018-04-27

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