



March 16, 2018

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

Via email: david_callaway@ddsd40.org

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

Dear Mr. Callaway:

From March 5 to 8, 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., 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. The following table lists all samples in which radon levels were found to be above the EPA action level.

Test Kits with Radon 4.0 pCi/L or Above

Test Kit Number	Sample location	Radon Level (pCi/L)
9014612	Room 3	6.6
9014613	Room 4	7.6
9014614	Room 5	8.4
9014615	Room 6	7.9
9014618	Room 7 – Duplicate	4.0
9014626	Room 10	5.6
9014627	Room 11	4.3
9014630	Room 11 – Duplicate	4.6
9014628	Room 12	6.9
9014633	Room 15	6.8
9014635	Room 17	6.5
9014636	Room 18	7.3

Test Kit Number	Sample location	Radon Level (pCi/L)
9014644	Room 20	8.2
9014638	GYM 1	4.0
9014639	GYM 2	4.5
9014640	GYM OFFICE	11.7
9014641	GYM OFFICE – Duplicate	12.3
9014624	KITCHEN OFFICE	4.8
9014622	MULTIPURPOSE 1	4.4
9014623	MULTIPURPOSE 2	4.4
9014642	ERC Room	4.0
9014655	QUIET ROOM	10.9

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.

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Radon Testing, Menlo Park Elementary
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Please feel free to contact me at 503.417.7694 or chris.boyce@pbsusa.com with any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Boyce". The signature is fluid and cursive, with the first name "Chris" being more prominent than the last name "Boyce".

Chris Boyce
Project Manager

Attachment: Air Chek, Inc., Laboratory Analysis Report

CB::AJ

Radon test result report for:
MENLO PARK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9014610	1	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	3.8 ± 0.4	2018-03-12
9014626	10	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	5.6 ± 0.5	2018-03-12
9014627	11	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	4.3 ± 0.5	2018-03-12
9014630	11-DUP	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	4.6 ± 0.5	2018-03-12
9014628	12	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	6.9 ± 0.5	2018-03-12
9014629	13	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	3.6 ± 0.4	2018-03-12
9014632	14	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	2.8 ± 0.4	2018-03-12
9014633	15	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	6.8 ± 0.5	2018-03-12
9014634	16	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	3.0 ± 0.4	2018-03-12
9014635	17	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	6.5 ± 0.5	2018-03-12
9014636	18	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	7.3 ± 0.5	2018-03-12
9014637	19	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	3.0 ± 0.4	2018-03-12
9014609	2	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	3.0 ± 0.4	2018-03-12
9014644	20	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	8.2 ± 0.6	2018-03-12
9014645	21	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	2.5 ± 0.4	2018-03-12
9014646	22	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	3.9 ± 0.4	2018-03-12
9014647	23	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	2.2 ± 0.4	2018-03-12
9014648	24	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	2.1 ± 0.4	2018-03-12
9014649	25	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	1.2 ± 0.4	2018-03-12
9014612	3	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	6.6 ± 0.5	2018-03-12
9014613	4	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	7.6 ± 0.5	2018-03-12
9014614	5	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	8.4 ± 0.6	2018-03-12
9014615	6	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	7.9 ± 0.5	2018-03-12
9014616	7	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	3.4 ± 0.4	2018-03-12
9014618	7-DUP	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	4.0 ± 0.5	2018-03-12
9014617	8	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	3.4 ± 0.5	2018-03-12
9014625	9	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	3.2 ± 0.4	2018-03-12
9014611	ALVORD OFFICE	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	1.6 ± 0.4	2018-03-12
9014607	BLANK 1	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	< 0.3	2018-03-12
9014651	BLANK 2	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	< 0.3	2018-03-12
9014652	BLANK 3	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	< 0.3	2018-03-12
9014620	COUNS. QUIET RM	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	1.6 ± 0.4	2018-03-12
9014619	COUNSELOR	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	1.7 ± 0.4	2018-03-12
9014621	CUSTODIAN OFFICE	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	2.6 ± 0.4	2018-03-12
9014642	ERC	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	4.0 ± 0.4	2018-03-12
9014638	GYM 1	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	4.0 ± 0.4	2018-03-12
9014639	GYM 2	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	4.5 ± 0.5	2018-03-12

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**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
MENLO PARK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9014640	GYM OFFICE	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	11.7 ± 0.7	2018-03-12
9014641	GYM OFFICE-DUP	2018-03-05 @ 11:00 am	2018-03-08 @ 1:00 pm	12.3 ± 0.6	2018-03-12
9014606	HEALTH	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	1.5 ± 0.4	2018-03-12
9014624	KITCHEN OFFICE	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	4.8 ± 0.4	2018-03-12
9014631	LIBRARY OFFICE	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	3.2 ± 0.4	2018-03-12
9014601	MAIN OFFICE	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	2.5 ± 0.4	2018-03-12
9014622	MULTIPURPOSE 1	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	4.4 ± 0.4	2018-03-12
9014623	MULTIPURPOSE 2	2018-03-05 @ 11:00 am	2018-03-08 @ 12:00 pm	4.4 ± 0.4	2018-03-12
9014602	PRINCIPAL	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	1.8 ± 0.4	2018-03-12
9014655	QUIET ROOM	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	10.9 ± 0.6	2018-03-12
9014605	SBS OFFICE	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	3.3 ± 0.4	2018-03-12
9014643	SPEECH	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	3.7 ± 0.4	2018-03-12
9014608	TEACHERS ROOM	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	1.8 ± 0.4	2018-03-12
9014603	WORK RM	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	2.3 ± 0.4	2018-03-12
9014604	WORK RM-DUP	2018-03-05 @ 10:00 am	2018-03-08 @ 12:00 pm	1.8 ± 0.4	2018-03-12

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

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**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
MENLO PARK
PORTABLE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9014653	26	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	< 0.3	2018-03-12
9014650	26-DUP	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	< 0.3	2018-03-12
9014654	27	2018-03-05 @ 12:00 pm	2018-03-08 @ 1:00 pm	< 0.3	2018-03-12

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