



March 10, 2020

Robyn Stolin
Facility Manager
3500 SW 104th Avenue
Beaverton, Oregon 97005

Via email: robyn.stolin@hopeccs.org

Regarding: Radon Assessment and Testing Services
Hope Chinese Charter School
3500 SW 104th Avenue
Beaverton, Oregon 97005
PBS Project 27038.000, Phase 0001

Dear Mr. Stolin:

From February 24 through February 27, 2020, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Hope Chinese Charter School, located at 3500 SW 104th Avenue in Beaverton, Oregon.

The Environmental Protection Agency (EPA) recommends, and the Oregon Health Authority (OHA) requires, that school 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.

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)
9378126	Office 6, PE Office	12.8

PBS recommends verification that any ventilation to Office 6 (PE Office) is functioning and for follow-up tests to be placed to check the accuracy of the initial results.

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 503.417.7724 or marli.heininger@pbsusa.com with any questions or comments.

Sincerely,

Marli Heininger
Industrial Hygiene Technician

Attachment: Air Chek Laboratory Analysis Report

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9378119	CLASSROOM A	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378120	CLASSROOM B	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378123	CLASSROOM C	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	2.4 ± 0.3	2020-02-28
9378124	CLASSROOM C DUP	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	2.6 ± 0.3	2020-02-28
9378112	CLASSROOM D	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.9 ± 0.3	2020-02-28
9378132	COPY ROOM	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378129	KITCHEN OFF BLNK	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378125	KITCHEN OFFICE	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378133	OFFICE 1	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	1.0 ± 0.3	2020-02-28
9378131	OFFICE 2	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378130	OFFICE 3	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	0.5 ± 0.3	2020-02-28
9378118	OFFICE 4	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.7 ± 0.3	2020-02-28
9378127	OFFICE 5	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378128	OFFICE 5 DUP	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378126	OFFICE 6	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	12.8 ± 0.8	2020-02-28
9378134	RECEPTION	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	0.9 ± 0.3	2020-02-28
9378106	ROOM 1	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378116	ROOM 10	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.5 ± 0.3	2020-02-28
9378113	ROOM 11	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378115	ROOM 12	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378108	ROOM 12 BLANK	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378109	ROOM 2	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378110	ROOM 2 DUP	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378107	ROOM 3	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378111	ROOM 4	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378114	ROOM 5	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378117	ROOM 6	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28
9378121	ROOM 7	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378122	ROOM 9	2020-02-24 @ 8:00 am	2020-02-27 @ 11:00 am	0.6 ± 0.3	2020-02-28
9378135	STAFF CONFERENCE	2020-02-24 @ 9:00 am	2020-02-27 @ 11:00 am	< 0.3	2020-02-28