



April 21, 2020

Ivan Leigh  
Woodburn School District Facilities  
1390 Meridian Drive  
Woodburn, Oregon 97071

Via email: ileigh@woodburnsd.org

Regarding: District Wide Radon Testing  
Lincoln Elementary School  
1041 N Boones Ferry Road  
Woodburn, Oregon  
PBS Project 25453.007

Dear Mr. Leigh:

From March 10 to March 13, 2020, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Lincoln Elementary School located at 1041 N Boones Ferry Road in Woodburn, 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 Lincoln Elementary School were below 4.0 pCi/L.**

See the attached laboratory analysis report for more details.

In addition to the EPA recommendation that radon concentrations do 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 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 503.209.1500 or Rich.Dufresne@pbsusa.com with any questions or comments.

Sincerely,

Rich Dufresne  
Senior Project Manager

Attachment: AirChek, Inc., Laboratory Analysis Report

BC:RD:mo

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9314018	CAFETERIA 1	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314010	CAFETERIA 2	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314007	GYM 1	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314008	GYM 2	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314009	GYM OFFICE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314011	HEALTH ROOM	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314004	KITCHEN OFFICE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	0.5 ± 0.3	2019-11-18
9314253	LIBRARY	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	0.5 ± 0.3	2019-11-18
9314245	LIBRARY LAB	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314016	MAIN OFF DUP	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314017	MAIN OFFICE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314013	OFFICE CONFERENCE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314021	OFFICE WORK ROOM	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314238	PRAMUK OFFICE	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314015	PRINCIPAL OFFICE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314022	REGISTRAR OFF	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314005	ROOM 1	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314276	ROOM 10	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314275	ROOM 13	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314270	ROOM 15	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314279	ROOM 16	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314269	ROOM 17	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314006	ROOM 2	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314258	ROOM 23	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314260	ROOM 24	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314246	ROOM 25	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314247	ROOM 26	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314248	ROOM 27	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314259	ROOM 28	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314255	ROOM 29	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314254	ROOM 33	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314257	ROOM 34	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	0.5 ± 0.3	2019-11-18
9314001	ROOM 37	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314003	ROOM 41	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314002	ROOM 41 OFFICE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314012	ROOM 42	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314277	ROOM 6	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18

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April 17, 2020

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

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Radon test result report for:

**LINCOLN ES**

**MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9314272	ROOM 8	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314271	ROOM 8 DUP	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314014	VICE PRINCIPAL OFFICE	2019-11-12 @ 5:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18

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

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April 17, 2020

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

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Radon test result report for:

**LINCOLN ES**

**MAIN6**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9314020	ROOM 18	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314268	ROOM 19	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314261	ROOM 20	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314267	ROOM 21	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314262	ROOM 21 BLANK	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314263	ROOM 22	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18

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Radon test result report for:**LINCOLN ES  
PORTABLES**

<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9314273	ROOM 43	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314293	ROOM 43 DUP	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.5 ± 0.3	2019-11-18
9314280	ROOM 44	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314278	ROOM 44 BLANK	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314281	ROOM 44 DUP	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314274	ROOM 51	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314266	ROOM 52	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314264	ROOM 53	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314019	ROOM 54	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314287	ROOM 55	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314286	ROOM 56	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314285	ROOM 57	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.6 ± 0.3	2019-11-18
9314291	ROOM 57 DUP	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18
9314284	ROOM 58	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.5 ± 0.3	2019-11-18
9314283	ROOM 59	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	0.5 ± 0.3	2019-11-18
9314282	ROOM 60	2019-11-12 @ 6:00 pm	2019-11-15 @ 6:00 pm	< 0.3	2019-11-18

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April 6, 2020

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

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Radon test result report for:

**LINCOLN  
MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9378269	14	2020-03-10 @ 1:00 pm	2020-03-13 @ 11:00 am	< 0.3	2020-03-16
9378297	32	2020-03-10 @ 1:00 pm	2020-03-13 @ 11:00 am	< 0.3	2020-03-16

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