A.B.E. Radiation Measurements Laboratory

Division of Health Physics Associates, Inc.
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September 2, 2025

Andrew Mather
Director of Support Services
Southern Lehigh School District
5775 Main Street
Center Valley, PA 18034

re: **Radon Sampling**, Southern Lehigh Middle School,
3715 Preston Ln., Center Valley, PA 18034.
Date of test: August 20 to 22, 2025
Test Placed by: Josh Bowers, ID 9085
Test Retrieved by: Jeanette Steber, ID 8834
Invoice #: 8363 A

Dear Mr. Mather:

The following is a report of the radon sampling conducted at the referenced school building. Radon sampling was performed over a 2-day period using activated charcoal manufactured by F & J, model RA40V, following US EPA screening test protocols. The charcoal analysis and testing procedures have passed the US EPA's Radon Measurement Proficiency Testing program and A.B.E. Radiation Measurements Lab is certified by the PA DEP for radon testing and radon laboratory analyses (certification numbers 0048 and 0050). Our last quality assurance spikes required by the PA DEP, which were sent to an approved DEP chamber showed a percent deviation of 5.2 %; May 17 to 19, 2025.

The attached table lists each sample location and the net radon concentrations in picocuries per liter (pCi/l). The term "picocuries per liter" is a measure of the radon gas concentration in the air. Proper screening testing in schools should be conducted under conditions simulating those occurring during normal occupied hours. However, ABE Radiation Measurements Laboratory has no control over the degree of ventilation in a building during the test or how the charcoal is treated in our absence.

All structures will contain some radon. Typically, ground and sub-ground level floors will have the highest levels in a multi-story building. Indoor concentrations will depend on the amount of radon seepage into the building and the air exchange rate of the ventilation system. Radon seepage into a building is variable, depending on atmospheric and indoor environmental conditions. Thus, indoor radon concentrations can fluctuate from day to day and over a 24-hour period. When samples are taken for a short time period, it is difficult to know if they represent the average or a high or low point in the range of fluctuation. However, the closed condition and the requirement of at least 25% fresh make-up air in school buildings generally results in short term tests being reasonably close to the annual average provided the wind and barometric pressure at the time of the test was reasonably average and that the HVAC system(s) were/was operated in an "occupied mode", and the windows were kept closed.

There are no government regulations setting occupational limits or guidelines pertaining to naturally occurring indoor radon levels in school buildings. However, the US EPA and the PA DEP suggest the guideline of 4 picocuries per liter (pCi/l) as the lower limit of its Remedial Action Guideline and recommend that radon concentrations of 4 pCi/l and above be reduced as far below this level as practicable. It should be noted that this guideline is based on a 75 percent occupancy rate. Thus, there is typically a lower total dose potential for schools, compared to residences for the same air concentrations because of lower occupancy times.

However, because of public concern over radon and the fact that staff and students may have elevated radon levels in their homes, the school administration may want to follow the 4.0 pCi/l guideline used for private homes.

Radon is the second leading cause of lung cancer, after smoking. The U.S. EPA and the Surgeon General strongly recommend taking further action when the radon test results are 4.0 pCi/l or greater. The national average indoor radon level is about 1.3 pCi/l. The higher the radon level the greater the health risk. Even buildings with very high radon levels can usually be reduced below 4.0 pCi/l. For further information about reducing elevated radon levels please refer to the "Pennsylvania's Consumer's Guide to Radon Reduction."

CONCLUSIONS

There is no radon reduction system in the building.

The radon concentrations measured during the test were all below the PA DEP screening guideline of less than 4.0 pCi/l with the exception of Rooms 107, 116, 122, 133 and 142 which were around or above the guideline. Rooms 111 and 143 were just below the remedial action guideline. The fresh air supply to these rooms should be checked to make sure they are supplying the proper amount of fresh air. If they presently are, they should be retested in a different season to better estimate the annual radon concentration. These levels do not pose an immediate health risk.

**A window in Room 123 was found open upon pick up of the canister and the result is not valid; this room should also be retested.

Because of the variability of indoor radon air concentrations over the course of a year, follow-up bi-annual testing is recommended to better estimate the annual average air concentrations.

The results of this test are valid only for the date, time and conditions under which the test was conducted and only for the client ordering the test. Should you wish to discuss additional testing or this report, please do not hesitate to contact us at (610) 756-4153.

Thank you for the opportunity to serve you.

Sincerely,

A LaMastra

A. LaMastra
Certified Health Physicist

A.B.E. RADIATION MEASUREMENTS LABORATORY

RADON TESTING RESULTS

Southern Lehigh Middle School
3715 Preston Lane
Center Valley, PA 18034

Test dates: August 20 to 22, 2025

Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
198182	Asst Principal Off.	09:21	09:27	2.1	
198183	Conference Room	09:22	09:29	2.6	
198185	Nurse Office	09:27	09:34	2.4	
198186	Boys Gym Office	09:29	09:35	1.1	
*198187	Gym A	09:32	09:38	Not Valid	
198188	Gym B	09:32	09:38	1.1	
198189	Aux Gym	09:35	09:39	1.5	
198190	Girls Gym Office	09:37	09:41	1.3	
198191	Upper Auditorium	09:40	09:43	2.4	
198192	Stage	09:42	09:44	2.7	
198193	Band 140	09:43	09:45	2.3	
198194	Room 142	09:45	09:47	4.5	
198195	142 (duplicate)	09:45	09:47	4.2	4.4
198196	Blank	N/A	N/A	<0.5	
198197	Room 143	09:47	09:49	3.7	
198198	Art 145	09:49	09:50	3.2	
198199	Woodshop 146	09:50	09:51	2.4	
198200	Tech Lab 147B	09:52	09:52	2.6	
198201	Voices Cafe	09:53	09:53	2.5	
198202	Kitchen Office	09:56	09:55	2.4	
198203	Cafeteria	09:57	09:54	2.3	
198204	Faculty D/R 139	09:59	09:57	3.0	
198205	Room 128	10:01	10:00	2.5	
198206	Room 125	10:02	10:01	2.6	
**198207	Room 123	10:04	10:02	Not Valid	
198208	Room 122	10:05	10:03	6.6	
198209	Room 131	10:07	10:05	2.4	

*Canister found upside down at pick-up; result not valid.
**Window in classroom found open at pick-up; result not valid.

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Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
198210	Room 133	10:08	10:06	3.8	
198211	Room 134	10:09	10:07	3.1	
198212	Room 136	10:11	10:08	2.8	
198213	136 (duplicate)	10:11	10:08	3.0	2.9
198214	Room 137	10:13	09:59	2.7	
198215	Library	10:15	10:13	2.5	
198216	Library (duplicate)	10:15	10:13	2.5	2.5
198217	Blank	N/A	N/A	<0.5	
198218	Room 119	10:17	10:16	2.7	
198219	Room 121	10:18	10:16	2.2	
198220	Room 117	10:20	10:17	3.3	
198221	Room 116	10:22	10:18	4.2	
198222	Room 111	10:23	10:19	3.7	
198223	Room 115	10:24	10:21	3.0	
198224	Room 109	10:26	10:24	2.7	
198225	Room 107	10:27	10:25	4.2	
198226	107 (duplicate)	10:27	10:25	4.1	4.2
198227	Room 105	10:30	10:27	1.7	
198228	Room 113	10:31	10:30	2.5	
198229	Room 103	10:33	10:28	3.3	
198230	Room 102	10:35	10:29	2.7	
198231	Main Office	10:38	09:26	2.4	