

A.B.E. Radiation Measurements Laboratory

Division of Health Physics Associates, Inc.

1005 Old 22 PO Box 214 Lenhartsville, PA 19534
(610) 756-4153 (610) 756-0042 (FAX) dee@radprotection.com

July 14, 2025

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

re: **Radon Sampling**, Southern Lehigh High School,
5800 Main St., Center Valley, PA 18034.
Date of test: July 7 to 9, 2025
Test Placed & Retrieved by: Josh Bowers, ID 9085
Invoice #: 8362 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 the Band Piano Room and the Health Room 313 which were slightly above the guideline. The fresh air supply to these rooms should be checked to make sure the proper amount of fresh air is being supplied. If the fresh air is increased the rooms should be retested. If the proper amount of fresh air is already being supplied, the rooms should be retested during another season to better estimate the annual radon concentration. These levels do not pose an immediate health risk.

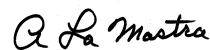
No tampering or deviation from required test conditions has been observed.

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
Certified Health Physicist

A.B.E. RADIATION MEASUREMENTS LABORATORY

RADON TESTING RESULTS

Southern Lehigh High School
5800 Main Street
Center Valley, PA 18034

Test dates: July 7 to 9, 2025

Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
1st Floor					
197500	Nurse	09:29	09:22	1.9	
197501	Conf Office	09:36	09:24	0.5	
197502	Board Room	09:39	09:26	<0.5	
197503	Auditorium	09:46	09:28	3.1	
197504	Stage	09:47	09:29	2.2	
197505	Music Practice Rm	09:50	09:31	3.3	
197330	Choral Room	09:53	09:35	3.2	
197507	Band Piano Rm	10:01	09:31	4.0	
197508	Main Office	10:06	09:36	1.7	
197509	Main Off (duplicate)	10:06	09:36	1.5	1.6
197510	Blank	N/A	N/A	<0.5	
197511	Break Room	10:09	09:38	1.5	
197512	Asst. Principal Office	10:12	09:39	1.6	
197513	Asst. Principal #2	10:14	09:40	1.5	
197514	Counselor Office	10:16	09:41	1.4	
197515	Typing 107	10:27	09:43	1.1	
197516	Spec Ed 111	10:29	09:44	1.4	
197517	Comp Lab 115	10:31	09:45	0.6	
197518	Faculty Lounge	10:33	09:46	0.8	
197519	Room 119	10:36	09:47	0.7	
197520	Room 123	10:40	09:49	<0.5	
197521	Room 122	10:43	09:51	<0.5	
197522	Room 127	10:46	09:52	0.6	
197523	Room 128	10:48	09:54	1.8	
197524	Room 132	10:51	09:55	0.7	
197525	Art 131/133	10:54	09:56	0.6	
197526	Room 136	10:57	09:57	<0.5	
197527	Room 135	10:58	09:58	<0.5	
197528	Family Science 139	11:02	10:00	1.3	
197529	Room 143	11:04	10:01	0.8	

A.B.E. RADIATION MEASUREMENTS LABORATORY

RADON TESTING RESULTS

Southern Lehigh High School
5800 Main Street
Center Valley, PA 18034

Test dates: July 7 to 9, 2025

Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
1st Floor					
197530	Room 144	11:07	10:03	0.8	
197531	Room 148	11:09	10:05	<0.5	
197532	Room 147	11:13	10:06	<0.5	
197533	Room 152	11:15	10:08	0.7	
197534	Room 191	11:17	10:09	0.9	
197535	Room 188	11:18	10:11	<0.5	
197536	Room 183	11:22	10:16	<0.5	
197537	Room 181	11:24	10:17	0.6	
197538	Room 184	11:26	10:12	<0.5	
197539	Food Court	11:33	10:21	<0.5	
197540	Kitchen Office	11:37	10:22	<0.5	
197541	Cafeteria	11:41	10:23	<0.5	
197542	Cafeteria (duplicate)	11:41	10:23	0.5	0.5
197543	Blank	N/A	N/A	<0.5	
197544	Faculty D/R	11:44	10:25	0.5	
197545	Computer Room	11:47	10:26	<0.5	
197546	Aux Gym	11:50	10:27	<0.5	
197547	Health Room 313	11:54	10:29	4.9	
197548	Fitness Lab	11:56	10:31	0.6	
197549	Athletic Office	11:59	10:32	0.6	
197550	Office 26	12:02	10:34	1.1	
197551	Athletic Trainer	12:05	10:36	0.8	
197552	Gym A	12:09	10:37	1.3	
197553	Gym B	12:09	10:38	1.3	
197562	Stairs to Bsmt	12:39	10:50	1.7	

A.B.E. RADIATION MEASUREMENTS LABORATORY

RADON TESTING RESULTS

Southern Lehigh High School
5800 Main Street
Center Valley, PA 18034

Test dates: July 7 to 9, 2025

Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
2nd Floor					
197554	Stair 1	12:17	10:41	1.5	1.1
197555	Room 208	12:21	10:42	1.1	
197556	208 (duplicate)	12:21	10:42	1.0	
197557	Blank	N/A	N/A	<0.5	
197558	Room 211	12:24	10:44	<0.5	1.1
197559	Room 214	12:26	10:45	<0.5	
197560	Stair 2	12:30	10:47	0.5	
197561	Elevator	12:36	10:49	0.9	