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 15, 2025

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

re: **Radon Sampling**, SL Hopewell Elementary School,
4625 W. Hopewell Rd., Center Valley, PA 18034.
Date of test: July 8 to 10, 2025
Test Placed & Retrieved by: Jeanette Steber, ID 8834
Invoice #: 8362 D

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. Remedial action to reduce the radon concentration is not indicated based on the results of this test.

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

A. LaMastra
Certified Health Physicist

A.B.E. RADIATION MEASUREMENTS LABORATORY

RADON TESTING RESULTS

Hopewell Elementary School
4625 West Hopewell Road
Center Valley, PA 18034

Test dates: July 8 to 10, 2025

Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
197634	Main Office	11:08	11:24	0.5	
197635	Main Off (duplicate)	11:08	11:24	0.6	0.6
197636	Blank	N/A	N/A	<0.5	
197637	Prin. Off. 12.1	11:13	11:27	0.6	
197638	Conf. 12.2	11:16	11:29	0.8	
197639	Nurse 11	11:17	11:30	0.7	
197640	Faculty 6	11:20	11:32	0.5	
197641	Cafeteria	11:21	11:33	0.5	
197642	Kitchen Manager	11:23	12:07	0.6	
197643	Library	11:26	11:36	0.6	
197644	Music 2	11:27	11:36	0.5	
197645	Gym	11:28	11:38	0.6	
197646	SGI 20	11:30	11:39	<0.5	
197647	SGI 23	11:31	11:42	<0.5	
197648	SGI 24	11:32	11:43	0.6	
197649	Art 25	11:34	11:44	<0.5	
197850	Room 31	11:35	11:46	<0.5	
197851	Room 35	11:36	11:47	<0.5	
197852	Room 37	11:38	11:48	<0.5	
197853	Room 36	11:39	11:48	0.5	
197854	Rm 36 (duplicate)	11:39	11:48	0.5	0.5
197855	Room 32	11:41	11:50	<0.5	
197856	Room 30	11:42	11:50	<0.5	
197857	Room 40	11:44	11:55	<0.5	
197858	Room 44	11:47	11:57	<0.5	
197859	Rm 44 (duplicate)	11:47	11:57	<0.5	<0.5
197860	Room 45	11:48	11:58	<0.5	
197861	Room 49	11:49	12:02	<0.5	
197862	Room 48	11:52	12:00	<0.5	
197863	Room 47	11:53	11:59	<0.5	
197864	Room 41	11:56	11:56	<0.5	
197865	SGI 26	12:00	11:54	<0.5	
197866	SGI 28	12:02	11:52	<0.5	
197867	Gym Office	12:03	11:38	0.5	