



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Cedar Grove Elementary School
Date of Test Report	05/27/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	1
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.7 pCi/L

Project Status

Current Project Status at this time: Testing completed; no further action needed



May 27, 2022

Mr. Brian Croyle, PG, CHMM
Environmental Specialist
Montgomery County Public Schools
Gaithersburg, MD 20879

Re: **Radon Testing Services**
KCI Job # 122108316

Location: Cedar Grove Elementary School
24001 Ridge Rd.
Germantown, MD 20876

Dear Mr. Croyle:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools (MCPS) pursuant to completing a “short-term” 3 day radon test for the Cedar Grove Elementary School, located at 24001 Ridge Rd. Germantown, MD 20876 (subject site).

Scope of Services:

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Proficiency Program (NRPP) Radon Measurement Specialist (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from <https://www.montgomeryschoolsmd.org> or www.epa.gov/radon.

KCI visited the site on March 28, 2022 and deployed three (3) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

KCI sampled the following locations during this follow-up test:

1. Rooms with missing test kits from the Radon 2022 testing period (i.e. test kit was deployed but not recovered),
2. Rooms with invalidated test kits from the Radon 2022 testing period (e.g. an open window in the room or disturbed test kit),
3. Rooms which were locked/inaccessible during the Radon 2022 testing period,
4. Rooms with elevated radon results (i.e. ≥ 3.5 pCi/L),
5. Rooms previously tested for radon but not tested in Radon 2022, and
6. Additional rooms that require testing (if applicable.)

A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI also included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner prior to being returned to the laboratory for analysis.

KCI returned to the site on March 31, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

According to AARST, *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*, ideal testing conditions would be when the building is fully occupied and the heating system is active. For this test, the facility's HVAC system was operating in heating mode; therefore, KCI concludes that this test was conducted during ideal testing conditions.

KCI recorded observations of the following conditions in each room during the time of deployment and collection of the radon test kits:

- Indoor temperature,
- HVAC Operation,
- Dehumidifier operation,
- Humidifier operation,
- Ceiling fan operation, and
- Open windows or doors.

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the mid 20°Fs and high temperatures ranged from the low 50°Fs to the mid 70°Fs. Maximum sustained winds ranged from 0-33 miles per hour. Average humidity was around 47% with 0.23 inches of precipitation (rain) was recorded during testing period.

Results:

The sampling locations and analytical results are listed on Table 1 (Attachment B). The quality control sample locations and analytical results are listed on Table 2 (Attachment B). Sampling locations and associated test kit identification numbers and relevant field observations are listed on Table 3 (Attachment B). The laboratory analytical results are included in Attachment C. Laboratory results and exposure data for the spike samples are also included in Attachment C.

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 pCi/L	None	N/A
<4.0 pCi/L	See Attachment B	

Quality Control Samples	
Results of Blank Canisters:	The office blanks, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L.
Adequate Laboratory Precision?	Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved.
Spike Sample Analysis:	The Spike Sample analysis results indicate the laboratory is operating within statistical control limits.

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (410) 891-1769.

Sincerely,



Tyler P. McCleaf
Radon Measurement Provider
#111004 RT
KCI Technologies, Inc.

Attachments: A- Floor Plan with Test Locations
 B- Table 1-3, Radon Test Summary Spreadsheets
 C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Cedar Grove ES RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11139801	10	2.7
11139804	10	< 0.3
11139805	10	2.5

Table 2- Radon Testing Results			
Cedar Grove ES RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11139805	D	10	2.5
11139804	FB	10	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Cedar Grove ES RT		
Test Period: 03/28/22 - 03/31/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and ≥ 4 piC/L Tests		
Cedar Grove ES RT		
Test Period: 03/28/22 - 03/31/22		
Kit Number	Room/Area	Result
	NA	

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**CEDAR GROVE ES
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139801	10	2022-03-28 @ 9:00 am	2022-03-31 @ 9:00 am	2.7 ± 0.4	2022-04-04
11139804	10	2022-03-28 @ 9:00 am	2022-03-31 @ 9:00 am	< 0.3	2022-04-04
11139805	10	2022-03-28 @ 9:00 am	2022-03-31 @ 9:00 am	2.5 ± 0.4	2022-04-04

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22 Date Start: _____ Date Stop: _____

Time Start: 0705 Time Stop: 0705 Time Start: _____ Time Stop: _____

Device No.'s: (5) Char Bags - Device No.'s: _____

11139367, 11139368, 11139371, _____

11139710, 11139717 _____

E3 light

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____ Time Start: _____ Time Stop: _____

Device No.'s: _____ Device No.'s: _____

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____ Time Start: _____ Time Stop: _____

Device No.'s: _____ Device No.'s: _____

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST)
Background = 7 μ R/h Elevation = 820 ft

March 30, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139367	SK1	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.9 \pm 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 \pm 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 \pm 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 \pm 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 \pm 2.0	2022-03-30

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

1. Rock Terrace School
2. S. Christa McAuliffe ES
3. Cedar Grove ES
4. DuFief ES
5. Emory Grove Center
6. Gaithersburg ES
7. Gaithersburg MS
8. Jones Lane ES
9. Rachel Carson ES
10. Rosemont ES
11. Shady Grove MS
12. Summit Hall ES
13. Albert Einstein HS
14. Eastern MS
15. Montgomery Blair HS
16. Newport Mill MS
17. Strawberry Knoll ES

	Date	Initials
Radon Test Kits Deployed	03/28/2022	BMM
Radon Test Kits Collected	03/31/2022	BMM
Radon Test Kits Shipped to Lab*	04/01/2022	BMM
Radon Test Kits Received by Lab*	04/04/2022	BMM

*All samples sent to Air Check, Inc., 1936 Butler Bridge Rd, Mills River, NC 28759



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Cedar Grove Elementary School
Date of Test Report	3/17/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	49
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	3.8 pCi/L

Project Status:

Initial testing completed; Missing, Elevated, or compromised samples need re-sampling



March 17, 2022

Brian T. Croyle, PG, CHMM
Environmental Specialist
Montgomery County Public Schools
Gaithersburg, MD 20879

Re: **Radon Testing Services**
KCI Job # 122108316

Location: Cedar Grove ES
24001 Ridge Rd.
Germantown, MD 20876

Dear Mr. Croyle:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools (MCPS) pursuant to completing a “short-term” 3 day radon test for the Cedar Grove ES, located at 24001 Ridge Rd. Germantown, MD 20876 (subject site).

Scope of Services:

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Proficiency Program (NRPP) Radon Measurement Specialist (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from <https://www.montgomeryschoolsmd.org> or www.epa.gov/radon.

KCI visited the site on February 15, 2022 and deployed fifty seven (57) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI also included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner prior to being returned to the laboratory for analysis.

KCI returned to the site on February 18, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc.

is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to post-mitigation biennial testing.

These tests were conducted to:

- Confirm the success of the mitigation system(s).

According to AARST, *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*, ideal testing conditions would be when the building is fully occupied and the heating system is active. For this test, the facility’s HVAC system was operating in heating mode; therefore, KCI concludes that this test was conducted during ideal testing conditions.

KCI recorded observations of the following conditions in each room during the time of deployment and collection of the radon test kits:

- Indoor temperature,
- HVAC Operation,
- Dehumidifier operation,
- Humidifier operation,
- Ceiling fan operation, and
- Open windows or doors.

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the 20s and high temperatures ranged from the high 30s to the high 40s Fahrenheit. Maximum sustained winds ranged from 5-18 miles per hour. Average humidity was around 15% with 1.5 inches of precipitation (rain) was recorded during testing period.

Results:

The sampling locations and analytical results are listed on Table 1 (Attachment B). The quality control sample locations and analytical results are listed on Table 2 (Attachment B). Sampling locations and associated test kit identification numbers and relevant field observations are listed on Table 3 (Attachment B). The laboratory analytical results are included in Attachment C. Laboratory results and exposure data for the spike samples are also included in Attachment C.

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 pCi/L	None	N/A
<4.0 pCi/L	See Attachment B	

Quality Control Samples	
Results of Blank Canisters:	The office blanks, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L.
Adequate Laboratory Precision?	Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved.
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Sincerely,



Tyler P. McCleaf
Radon Measurement Provider
#111004 RT
KCI Technologies, Inc.

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Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Cedar Grove ES		
Test Period: 02/15/2022 - 02/18/2022		
Kit Number	Room / Area	Result
11123513	1	< 0.3
11123512	2	< 0.3
11123505	3	< 0.3
11123511	4	< 0.3
11123506	5	< 0.3
11123523	6	1.3
11123524	7	0.8
11123525	8	1.6
11123526	9	< 0.3
11123531	10	3.8
11123533	10	2.8
11123532	11	2.3
11123534	12	1.0
11123541	13	1.8
11123540	14	< 0.3
11123545	15	1.6
11123528	16	< 0.3
11123539	17	< 0.3
11123535	18	0.9
11123542	18	0.9
11123550	19	< 0.3
11123527	15A	0.6
11123514	1A	< 0.3
11123504	AP GERMAN	< 0.3
11123536	BUILDING SERVICE	< 0.3
11123551	CAFETERIA	0.5
11123552	CAFETERIA	< 0.3
11123503	CONFERENCE ROOM	< 0.3
11123501	ESOL ROOM	< 0.3
11123546	GYM	0.6
11123565	GYM	1.3
11123556	GYM OFFICE	0.7
11123572	GYM OFFICE	< 0.3
11123507	HEALTH ROOM	< 0.3
11123508	HEALTH ROOM OFFICE	< 0.3
11123553	HIRSCHMAN WILSON	< 0.3
11123529	JOHNSON READING INIT	2.7
11123549	K1	< 0.3
11123547	K2	< 0.3
11123555	K3	< 0.3
11123563	K4MUSIC	< 0.3
11123558	KITCHEN OFFICE	< 0.3

Table 1- Radon Testing Results		
Cedar Grove ES		
Test Period: 02/15/2022 - 02/18/2022		
Kit Number	Room / Area	Result
11123502	MAIN OFFICE	< 0.3
11123509	MAIN ROOM NEAR AP ROOM	< 0.3
11123554	MEDIA CENTER	< 0.3
11123548	MEDIA OFFICE	< 0.3
11123557	MEDIA OFFICE	< 0.3
11123530	OT	< 0.3
11123510	PRINCIPAL	< 0.3
11123518	RESOURCE MEETING	< 0.3
11123520	RESOURCE PHILLIPS	< 0.3
11123517	RESOURCE WARMACK	< 0.3
11123519	RESOURCE WARMACK	0.8
11123521	SPEECH MATTSON	0.7
11123522	SPEECH MATTSON	0.7
11123515	STAFF LOUNGE 1B	< 0.3
11123516	STAFF LOUNGE 1B	< 0.3

Table 2- Radon Testing Results			
Cedar Grove ES			
Test Period: 02/15/2022 - 02/18/2022			
Kit Number	QC Type	Room / Area	Result
11123515	D	Staff lounge 1B	< 0.3
11123522	D	Speech mattsen	0.7
11123517	FB	Resource warmack	< 0.3
11123533	D	10	2.8
11123535	D	18	0.9
11123572	FB	Gym office	< 0.3
11123557	D	Media office	< 0.3
11131660	OB	OFFICE BLANK	< 0.3
11131661	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
CEDAR GROVE ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11123513	1	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123531	10	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	3.8 ± 0.4	2022-02-22
11123533	10	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	2.8 ± 0.4	2022-02-22
11123532	11	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	2.3 ± 0.4	2022-02-22
11123534	12	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	1.0 ± 0.3	2022-02-22
11123541	13	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	1.8 ± 0.3	2022-02-22
11123540	14	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123545	15	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	1.6 ± 0.3	2022-02-22
11123527	15A	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.6 ± 0.3	2022-02-22
11123528	16	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123539	17	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123535	18	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.9 ± 0.3	2022-02-22
11123542	18	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.9 ± 0.3	2022-02-22
11123550	19	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123514	1A	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123512	2	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123505	3	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123511	4	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123506	5	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123523	6	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	1.3 ± 0.3	2022-02-22
11123524	7	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.8 ± 0.3	2022-02-22
11123525	8	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	1.6 ± 0.3	2022-02-22
11123526	9	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123504	AP GERMAN	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123536	BUILDING SERVICE	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123551	CAFETERI	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.5 ± 0.3	2022-02-22
11123552	CAFETERIA	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123503	CONFERENCE ROOM	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123501	ESOL ROOM	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123546	GYM	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.6 ± 0.3	2022-02-22
11123565	GYM	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	1.3 ± 0.3	2022-02-22
11123556	GYM OFFICE	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.7 ± 0.3	2022-02-22
11123572	GYM OFFICE	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123507	HEALTH ROOM	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123508	HEALTH ROOM OFFICE	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123553	HIRSCHMAN WILSON	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123529	JOHNSON READING INIT	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	2.7 ± 0.4	2022-02-22

Radon test result report for:
CEDAR GROVE ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11123549	K1	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123547	K2	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123555	K3	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123563	K4MUSIC	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123558	KITCHEN OFFICE	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123502	MAIN OFFICE	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123509	MAIN ROOM NEAR AP ROOM	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123554	MEDIA CENTER	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123548	MEDIA OFFICE	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123557	MEDIA OFFICE	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123530	OT	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123510	PRINCIPAL	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123518	RESOURCE MEETING	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123520	RESOURCE PHILLIPS	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123517	RESOURCE WARMACK	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123519	RESOURCE WARMACK	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.8 ± 0.3	2022-02-22
11123522	SPEECH MATTSON	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.7 ± 0.3	2022-02-22
11123521	SPEECH MATTSON	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.7 ± 0.3	2022-02-22
11123516	STAFF LOUNGE 1B	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123515	STAFF LOUNGE 1B	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204186

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 50.1 % Temp. 70.9 F

Date Start: 2/18/22 Date Stop: 2/21/22 Date Start: _____ Date Stop: _____

Time Start: 0911 Time Stop: 0911 Time Start: _____ Time Stop: _____

Device No.'s: (3) Char Bags -
11113484, 1112998, 20107126 Device No.'s: _____

23 Right

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____ Time Start: _____ Time Stop: _____

Device No.'s: _____ Device No.'s: _____

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____ Time Start: _____ Time Stop: _____

Device No.'s: _____ Device No.'s: _____

**Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST)
Background = 7 µR/h Elevation = 820 ft**

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
11113484	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK1		1	27.9
11122998	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK2		1	26.0
20107126	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK3		1	27.6



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – February 2022 Schools

Name of Schools:

1. Damascus HS
2. Germantown ES
3. Great Seneca Creek ES
4. Lake Seneca ES
5. S. Christa McAuliffe ES
6. Northwest HS
7. Waters Landing ES
8. Seneca Valley HS
9. Cedar Grove ES
10. Capt. James E. Daly ES
11. Neelsville MS
12. Dr. Sally K. Ride ES

	Date	Initials
Radon Test Kits Deployed	02/15/2022	DM
Radon Test Kits Collected	02/18/2022	DM
Radon Test Kits Shipped to Lab*	02/18/2022	DM
Radon Test Kits Received by Lab*	02/21/2022	DM

*All samples sent to Air Check, Inc., 1936 Butler Bridge Rd, Mills River, NC 28759