



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Gaithersburg 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	3
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.1 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: Gaithersburg Elementary School
35 North Summit Ave.
Gaithersburg, MD 20877

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 Gaithersburg Elementary School, located at 35 North Summit Ave. Gaithersburg, MD 20877 (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 five (5) 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		
Gaithersburg ES RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11139829	B112	1.1
11139832	B112	1.1
11139833	B112	< 0.3
11139830	I	0.5
11139826	ROOM A	< 0.3

Table 2- Radon Testing Results			
Gaithersburg ES RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11139829	D	B112	1.1
11139833	FB	B112	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

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

Summary of Missing, Compromised and \geq 4 pC/L Tests		
Gaithersburg 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:
GAITHERSBURG
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139829	B112	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	1.1 ± 0.3	2022-04-04
11139832	B112	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	1.1 ± 0.3	2022-04-04
11139833	B112	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	< 0.3	2022-04-04
11139830	I	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	0.5 ± 0.3	2022-04-04
11139826	ROOM A	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	< 0.3	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 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 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	Gaithersburg Elementary School
Date of Test Report	4/7/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	84
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.4 pCi/L

Project Status:

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



April 7, 2022

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

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

Location: Gaithersburg ES
35 North Summit Ave.
Gaithersburg, MD 20877

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 Gaithersburg ES, located at 35 North Summit Ave. Gaithersburg, MD 20877 (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 22, 2022 and deployed ninety eight (98) 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 25, 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	NA	NA
<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
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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		
Gaithersburg ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11130729	1	< 0.3
11130717	2	< 0.3
11130728	3	< 0.3
11130720	4	< 0.3
11130723	4	< 0.3
11130790	5	1.0
11130791	6	< 0.3
11130760	7	< 0.3
11130799	8	1.2
11130797	9	< 0.3
11130749	10	< 0.3
11130752	10	0.8
11130748	11	< 0.3
11130713	13	< 0.3
11123891	17	< 0.3
11130733	21	< 0.3
11130783	22	< 0.3
11130740	23	< 0.3
11130762	24	< 0.3
11130763	24	< 0.3
11130782	25	< 0.3
11130765	26	< 0.3
11130796	27	< 0.3
11130766	28	0.7
11130742	29	< 0.3
11130774	30	0.8
11130754	12A	1.2
11130753	12B	< 0.3
11130787	6A	< 0.3
11130798	6A	0.7
11130800	6A	1.0
11130789	6B	< 0.3
11130793	ADMIN	< 0.3
11130724	APR	< 0.3
11130732	APR	< 0.3
11130777	ART	< 0.3
11130719	B	< 0.3
11130707	B105	0.9
11130709	B109	< 0.3
11123892	B110	< 0.3
11130714	B111	< 0.3
11130715	B111	< 0.3
11130716	B111	< 0.3
11130705	B113	< 0.3
11123889	B115	< 0.3

Table 1- Radon Testing Results		
Gaithersburg ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11130712	B116	< 0.3
11130730	BUILDING SERVICES MANAGER	< 0.3
11130768	C	1.0
11130784	COMPUTER	< 0.3
11130778	CONFERENCE	< 0.3
11130775	D	< 0.3
11130761	E	< 0.3
11130725	E2	0.9
11130736	E2	< 0.3
11130737	E2	< 0.3
11130731	E4	< 0.3
11130794	F	< 0.3
11130781	G	< 0.3
11130788	G	< 0.3
11130718	GYM	< 0.3
11130722	GYM	0.9
11130738	GYM OFFICE	< 0.3
11130756	H	< 0.3
11123845	HEALTH	< 0.3
11122616	HEALTH 2	0.7
11130764	I	< 0.3
11130751	K	1.1
11130745	K1	< 0.3
11130747	K2	< 0.3
11130743	K3	< 0.3
11130758	K4	< 0.3
11130750	K5	0.9
11130772	K6	< 0.3
11130779	K6	1.2
11130780	K6	< 0.3
11130746	K7	0.9
11130726	KITCHEN OFFICE	< 0.3
11130708	L	0.6
11130721	M	1.1
11130757	MAIN OFFICE	< 0.3
11130785	MAIN OFFICE	< 0.3
11130786	MAIN OFFICE	< 0.3
11130755	MATH ASSESSMENT	< 0.3
11130795	MATH ROOM	1.0
11130744	MEDIA CENTER	< 0.3
11130792	MEDIA CENTER	< 0.3
11130769	MEDIA CENTER OFFICE	1.4
11130739	MUSIC	< 0.3
11123890	N	< 0.3
11130773	O	< 0.3

Table 1- Radon Testing Results		
Gaithersburg ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11130767	P	1.2
11130771	PRINCIPAL	< 0.3
11130741	Q	< 0.3
11130727	RESOURCE	0.9
11130735	STAFF LOUNGE	< 0.3
11130776	STAFF WORK ROOM	< 0.3
11130770	VP	0.7
11130759	X	0.6

Table 2- Radon Testing Results			
Gaithersburg ES			
Test Period: 02/22/2022 - 02/25/2022			
Kit Number	QC Type	Room / Area	Result
11130757	D	Main office	< 0.3
11130779	D	K6	1.2
11130780	FB	K6	< 0.3
11130752	D	10	0.8
11130725	D	E2	0.9
11130736	FB	E2	< 0.3
11130720	D	4	< 0.3
11130715	D	B111	< 0.3
11130714	FB	B111	< 0.3
11139384	OB	OFFICE BLANK	< 0.3
11131222	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
GAITHERSBURG ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130729	1	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130752	10	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.8 ± 0.4	2022-03-03
11130749	10	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130748	11	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130754	12A	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	1.2 ± 0.5	2022-03-03
11130753	12B	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130713	13	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130717	2	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130733	21	2022-02-22 @ 12:00 pm	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130783	22	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130740	23	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130762	24	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130763	24	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130782	25	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130765	26	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130796	27	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130766	28	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.7 ± 0.4	2022-03-03
11130742	29	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130728	3	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130774	30	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.8 ± 0.5	2022-03-03
11130723	4	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130720	4	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130790	5	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.0 ± 0.5	2022-03-03
11130791	6	2022-02-22 @ 10:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130800	6A	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.0 ± 0.5	2022-03-03
11130787	6A	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130798	6A	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.7 ± 0.5	2022-03-03
11130789	6B	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130760	7	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130799	8	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.2 ± 0.5	2022-03-03
11130797	9	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130793	ADMIN	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130732	APR	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130724	APR	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130777	ART	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130719	B	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130707	B105	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03

**Radon test result report for:
GAITHERSBURG ES**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130709	B109	2022-02-22 @ 12:00 pm	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130715	B111	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130714	B111	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130716	B111	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130705	B113	2022-02-22 @ 12:00 pm	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130712	B116	2022-02-22 @ 12:00 pm	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130730	BUILDING SERVICES MANAGER	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130768	C	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.0 ± 0.5	2022-03-03
11130784	COMPUTER	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130778	CONFERENCE	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130775	D	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130761	E	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130737	E2	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130725	E2	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11130736	E2	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130731	E4	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130794	F	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130781	G	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130788	G	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130718	GYM	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130722	GYM	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11130738	GYM OFFICE	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130756	H	2022-02-22 @ 11:00 am	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11130764	I	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130751	K	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.1 ± 0.5	2022-03-03
11130745	K1	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130747	K2	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130743	K3	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130758	K4	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130750	K5	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.4	2022-03-03
11130772	K6	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130780	K6	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130779	K6	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.2 ± 0.5	2022-03-03
11130746	K7	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11130726	KITCHEN OFFICE	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130708	L	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.6 ± 0.5	2022-03-03
11130721	M	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	1.1 ± 0.5	2022-03-03

Radon test result report for:
GAITHERSBURG ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130785	MAIN OFFICE	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130757	MAIN OFFICE	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130786	MAIN OFFICE	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130755	MATH ASSESSMENT	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130795	MATH ROOM	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.0 ± 0.5	2022-03-03
11130792	MEDIA CENTER	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130744	MEDIA CENTER	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130769	MEDIA CENTER OFFICE	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.4 ± 0.6	2022-03-03
11130739	MUSIC	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130773	O	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130767	P	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.2 ± 0.5	2022-03-03
11130771	PRINCIPAL	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130741	Q	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130727	RESOURCE	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11130735	STAFF LOUNGE	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11130776	STAFF WORK ROOM	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11130770	VP	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	0.7 ± 0.5	2022-03-03
11130759	X	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.6 ± 0.4	2022-03-03

March 3, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
GAITHERSBURG ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11123891	17	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11123892	B110	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11123889	B115	2022-02-22 @ 12:00 pm	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11123845	HEALTH	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11122616	HEALTH 2	2022-02-22 @ 11:00 am	2022-02-25 @ 9:00 am	0.7 ± 0.5	2022-03-03
11123890	N	2022-02-22 @ 12:00 pm	2022-02-25 @ 9:00 am	< 0.3	2022-03-03

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 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. Dufief ES
2. Emory Grove Center
3. Fields Road ES
4. Forest Oak MS
5. Gaithersburg ES
6. Gaithersburg MS
7. Jones Lane ES
8. Rachel Carson ES
9. Rosemont ES
10. Shady Grove MS
11. Summit Hall ES
12. Washington Grove ES

	Date	Initials
Radon Test Kits Deployed	02/22/2022	PM
Radon Test Kits Collected	02/25/2022	PM
Radon Test Kits Shipped to Lab*	02/25/2022	JM
Radon Test Kits Received by Lab*	02/28/2022	PM

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