



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Summit Hall 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	0.4 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: Summit Hall Elementary School
101 West Deer Park Rd.
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 Summit Hall Elementary School, 101 West Deer Park Rd. 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		
Summit Hall ES RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11139916	IR #4	0.3
11139929	IR #4	0.4
11139953	IR #4	0.4
11139955	MODULAR BUILDING A (203)	0.4
11139951	MODULAR BUILDING B (304)	0.4

Table 2- Radon Testing Results			
Summit Hall ES RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11139953	D	IR #4	0.4
11139929	FB	IR #4	0.4
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

April 21, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139916	IR #4	2022-03-28 @ 12:00 pm	2022-03-31 @ 12:00 pm	< 0.3	2022-04-04
11139929	IR #4	2022-03-28 @ 12:00 pm	2022-03-31 @ 12:00 pm	< 0.3	2022-04-04
11139953	IR #4	2022-03-28 @ 12:00 pm	2022-03-31 @ 12:00 pm	< 0.3	2022-04-04
11139955	MODULAR BUILDING A (203)	2022-03-28 @ 12:00 pm	2022-03-31 @ 12:00 pm	< 0.3	2022-04-04
11139951	MODULAR BUILDING B (304)	2022-03-28 @ 12:00 pm	2022-03-31 @ 12:00 pm	< 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	Summit Hall 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	69
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.4 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: Summit Hall ES
101 West Deer Park Rd.
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 Summit Hall ES, located at 101 West Deer Park Rd. 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 seventy nine (79) 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 initial testing.
- Addition initial testing.

These tests were conducted to:

- Evaluate radon concentration levels 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 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.
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Sincerely,



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

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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		
Summit Hall ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11131218	1	1.0
11131223	2	< 0.3
11131231	3	< 0.3
11131246	4	0.9
11131299	5	1.7
11131258	6	1.3
11131265	7	< 0.3
11131264	8	1.4
11131279	9	1.5
11131257	10	1.7
11131266	11	1.4
11131281	12	< 0.3
11131282	12	0.8
11131256	13	1.6
11131249	14	< 0.3
11131250	15	1.1
11131263	16	1.0
11131248	17	0.9
11131240	18	0.7
11131241	18	< 0.3
11131270	18	< 0.3
11131247	19	< 0.3
11131243	20	< 0.3
11131277	21	0.9
11131267	22	1.3
11131268	23	< 0.3
11131276	24	< 0.3
11131283	25	< 0.3
11131290	26	< 0.3
11131233	27	< 0.3
11131234	27	< 0.3
11131239	27	< 0.3
11131232	28	< 0.3
11131291	29	< 0.3
11131289	30	< 0.3
11131242	31	< 0.3
11131285	31	< 0.3
11131269	32	< 0.3
11131271	33	0.8
11131288	34	< 0.3
11131278	35	< 0.3
11131286	36	0.7
11131254	102	< 0.3
11131262	103	< 0.3
11131297	104	0.8

Table 1- Radon Testing Results		
Summit Hall ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11131261	105	< 0.3
11131298	106	< 0.3
11131226	109	< 0.3
11131296	111	< 0.3
11131293	114	< 0.3
11131225	115	< 0.3
11131294	115	< 0.3
11131295	121	< 0.3
11131224	122	0.6
11131292	121A	< 0.3
11131284	23A	< 0.3
11131275	26A	0.9
11131274	AP	1.8
11131227	APR	1.4
11131228	APR	1.2
11131235	APR	1.7
11131280	BS	1.2
11131229	CONFERENCE A	2.2
11131273	COUNSELOR	1.3
11131300	FILES	2.0
11131237	FRANCO	2.3
11131251	GYM	0.9
11131252	GYM	< 0.3
11131253	GYM OFFICE	< 0.3
11131259	GYM OFFICE	0.9
11131260	GYM OFFICE	< 0.3
11131236	KITCHEN OFFICE	1.5
11131245	MAIN OFFICE	1.7
11131255	MC	< 0.3
11131287	MEDIA OFFICE	< 0.3
11131238	PRINCIPAL	1.7
11131230	STAFF LOUNGE	2.4
11131244	STAGE	1.5
11131272	WR	2.3

Table 2- Radon Testing Results			
Summit Hall ES			
Test Period: 02/22/2022 - 02/25/2022			
Kit Number	QC Type	Room / Area	Result
11131281	D	12	< 0.3
11131270	D	18	< 0.3
11131241	FB	18	< 0.3
11131242	D	31	< 0.3
11131233	D	27	< 0.3
11131239	FB	27	< 0.3
11131225	D	115	< 0.3
11131259	D	Gym office	0.9
11131260	FB	Gym office	< 0.3
11131235	D	APR	1.7
11139384	OB	OFFICE BLANK	< 0.3
11131222	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
SUMMIT HALL ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131218	1	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.0 ± 0.5	2022-03-03
11131257	10	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.7 ± 0.5	2022-03-03
11131254	102	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131262	103	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131297	104	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.8 ± 0.5	2022-03-03
11131261	105	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131298	106	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131226	109	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131266	11	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.4 ± 0.5	2022-03-03
11131296	111	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131293	114	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131225	115	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131294	115	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131281	12	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131282	12	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	0.8 ± 0.5	2022-03-03
11131295	121	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131292	121A	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131224	122	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	0.6 ± 0.5	2022-03-03
11131256	13	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.6 ± 0.5	2022-03-03
11131249	14	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131250	15	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.1 ± 0.5	2022-03-03
11131263	16	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.0 ± 0.5	2022-03-03
11131248	17	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	0.9 ± 0.5	2022-03-03
11131270	18	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131241	18	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131240	18	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	0.7 ± 0.5	2022-03-03
11131247	19	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131223	2	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131243	20	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131277	21	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11131267	22	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	1.3 ± 0.5	2022-03-03
11131268	23	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131284	23A	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131276	24	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131283	25	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131290	26	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131275	26A	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03

Radon test result report for:
SUMMIT HALL ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131233	27	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131239	27	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131234	27	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131232	28	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131291	29	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131231	3	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131289	30	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131285	31	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131242	31	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131269	32	2022-02-22 @ 9:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131271	33	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	0.8 ± 0.5	2022-03-03
11131288	34	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131278	35	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131286	36	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	0.7 ± 0.5	2022-03-03
11131246	4	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11131299	5	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.7 ± 0.6	2022-03-03
11131258	6	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	1.3 ± 0.5	2022-03-03
11131265	7	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131264	8	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.4 ± 0.6	2022-03-03
11131279	9	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.5 ± 0.5	2022-03-03
11131274	AP	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.8 ± 0.5	2022-03-03
11131235	APR	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.7 ± 0.5	2022-03-03
11131227	APR	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.4 ± 0.5	2022-03-03
11131228	APR	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.2 ± 0.5	2022-03-03
11131280	BS	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.2 ± 0.5	2022-03-03
11131229	CONFERENCE A	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	2.2 ± 0.6	2022-03-03
11131273	COUNSELOR	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	1.3 ± 0.5	2022-03-03
11131300	FILES	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	2.0 ± 0.6	2022-03-03
11131237	FRANCO	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	2.3 ± 0.6	2022-03-03
11131252	GYM	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131251	GYM	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11131253	GYM OFFICE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131260	GYM OFFICE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	< 0.3	2022-03-03
11131259	GYM OFFICE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	0.9 ± 0.5	2022-03-03
11131236	KITCHEN OFFICE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.5 ± 0.5	2022-03-03
11131245	MAIN OFFICE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.7 ± 0.6	2022-03-03
11131255	MC	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03

March 3, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SUMMIT HALL ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131287	MEDIA OFFICE	2022-02-22 @ 9:00 am	2022-02-25 @ 8:00 am	< 0.3	2022-03-03
11131238	PRINCIPAL	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.7 ± 0.5	2022-03-03
11131230	STAFF LOUNGE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	2.4 ± 0.6	2022-03-03
11131244	STAGE	2022-02-22 @ 10:00 am	2022-02-25 @ 9:00 am	1.5 ± 0.5	2022-03-03
11131272	WR	2022-02-22 @ 8:00 am	2022-02-25 @ 8:00 am	2.3 ± 0.6	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 μ R/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