



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Newport Mill Middle School
Date of Test Report	05/27/2022
Round of Testing	Initial <u>Follow-up</u> 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	<0.3 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: Newport Mill Middle School
11311 Newport Mill Rd.
Kensington, MD 20895

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 Newport Mill Middle School, located at 11311 Newport Mill Rd. Kensington, MD 20895 (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 four (4) 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		
Newport Mill MS RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11131790	GYM	< 0.3
11131797	GYM	< 0.3
11131798	GYM	< 0.3
11131799	GYM	< 0.3

Table 2- Radon Testing Results			
Newport Mill MS RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11131790	D	Gym	< 0.3
11131799	FB	Gym	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
NEWPORT MILLS MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131790	GYM	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131797	GYM	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131798	GYM	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131799	GYM	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 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	Newport Mill Middle School
Date of Test Report	4/26/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	65
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.5 pCi/L

Project Status:

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



April 26, 2022

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

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

Location: Newport Mill Middle School
11311 Newport Mill Rd.
Kensington, MD 20895

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 Newport Mill MS, located at 11311 Newport Mill Rd. Kensington, MD 20895 (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 28, 2022 and deployed seventy four (74) 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 March 3, 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 biennial post-mitigation 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 50s to the low 60s Fahrenheit. Maximum sustained winds ranged from 9-17 miles per hour. Average humidity was around 40% with 0 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
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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		
Newport Mill MS		
Test Period: 03/01/2022 - 03/04/2022		
Kit Number	Room / Area	Result
11133351	101	< 0.3
11133352	101	0.8
11133348	102	< 0.3
11133400	105	1.1
11133386	116	1.2
11133395	120	1.5
11133340	200	0.5
11133339	201	< 0.3
11133337	202	< 0.3
11133336	204	< 0.3
11133338	207	0.6
11133327	209	< 0.3
11133335	209	< 0.3
11133350	210	< 0.3
11133357	212	< 0.3
11133349	216	< 0.3
11133358	216	< 0.3
11133323	217	0.6
11133332	217	0.7
11133346	218	0.5
11133331	219	< 0.3
11133344	220	< 0.3
11133347	221	0.5
11133324	223	0.6
11133343	301	0.9
11133345	301	0.5
11133366	301	0.9
11133367	302	1.0
11133361	304	1.2
11133382	304	1.3
11133374	305	< 0.3
11133342	306	0.8
11133353	306	1.0
11133381	307	0.5
11133362	308	1.4
11133375	309	1.4
11133365	400	1.2
11133373	402	0.9
11133356	407	0.7
11133359	409	0.7
11133360	409	< 0.3
11133368	411	0.8

Table 1- Radon Testing Results		
Newport Mill MS		
Test Period: 03/01/2022 - 03/04/2022		
Kit Number	Room / Area	Result
11133355	412	0.8
11133364	412	0.9
11133372	412	0.8
11133363	413	1.1
11133371	414	1.3
11133369	1216	< 0.3
11133376	1217	0.8
11133333	211C	0.7
11133334	211C	0.6
11133330	211D	0.7
11133328	211E	< 0.3
11133354	412D	0.9
11133389	BOYS LOCKER ROOM	1.1
11133388	BOYS LOCKER ROOM OFFICE	0.8
11133391	BOYS LOCKER ROOM OFFICE	1.0
11133341	CAFETERIA	0.7
11133380	CAFETERIA	< 0.3
11133329	COUNSELOR LOUNGE ROOM	0.7
11133377	GIRLS LOCKER ROOM	0.5
11133392	GIRLSLOCKER ROOMOFFICE	< 0.3
11133390	GYM	0.6
11133396	GYM	< 0.3
11133387	HEALTH ROOM	0.9
11133383	KITCHEN	< 0.3
11133384	KITCHEN	< 0.3
11133307	MAIN OFFICE	0.9
11133319	MAIN OFFICE	0.6
11133322	MAIN OFFICE	< 0.3
11133325	MAIN OFFICE	< 0.3
11133326	MAIN OFFICE	1.1
11133370	MAIN OFFICE	< 0.3
11133378	STUDIP	1.0
11133399	WEIGHT ROOM	1.3

Table 2- Radon Testing Results			
Newport Mill MS			
Test Period: 03/01/2022 - 03/04/2022			
Kit Number	QC Type	Room / Area	Result
11133333	D	211C	0.7
11133323	D	217	0.6
11133358	FB	216	< 0.3
11133352	D	101	0.8
11133355	D	412	0.8
11133360	FB	409	< 0.3
11133342	FB	306	0.8
11133384	D	Kitchen	< 0.3
11133388	D	Boys locker room office	0.8
11130861	OB	OFFICE BLANK	< 0.3
11130854	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

March 8, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
NEWPORT MILL MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11133355	412	2022-03-01 @ 9:00 am	2022-03-04 @ 12:00 pm	0.8 ± 0.3	2022-03-07

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

Radon test result report for:
NEWPORT MILL MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11133351	101	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133352	101	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.8 ± 0.3	2022-03-08
11133348	102	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133400	105	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	1.1 ± 0.3	2022-03-08
11133386	116	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	1.2 ± 0.3	2022-03-07
11133395	120	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	1.5 ± 0.3	2022-03-08
11133369	1216	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133376	1217	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.8 ± 0.3	2022-03-08
11133340	200	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-08
11133339	201	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133337	202	2022-03-01 @ 8:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133336	204	2022-03-01 @ 8:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133338	207	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.6 ± 0.3	2022-03-07
11133327	209	2022-03-01 @ 8:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133335	209	2022-03-01 @ 8:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133350	210	2022-03-01 @ 9:00 am	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133333	211C	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	0.7 ± 0.3	2022-03-07
11133334	211C	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	0.6 ± 0.3	2022-03-07
11133330	211D	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	0.7 ± 0.3	2022-03-07
11133328	211E	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	< 0.3	2022-03-07
11133357	212	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133349	216	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133358	216	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133332	217	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.7 ± 0.3	2022-03-07
11133323	217	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.6 ± 0.3	2022-03-08
11133346	218	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-07
11133331	219	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133344	220	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133347	221	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-08
11133324	223	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.6 ± 0.3	2022-03-07
11133343	301	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.9 ± 0.3	2022-03-07
11133366	301	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.9 ± 0.3	2022-03-07
11133345	301	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-08
11133367	302	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.0 ± 0.3	2022-03-07
11133361	304	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.2 ± 0.3	2022-03-07
11133382	304	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-08
11133374	305	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08

Radon test result report for:
NEWPORT MILL MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11133342	306	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.8 ± 0.3	2022-03-07
11133353	306	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.0 ± 0.3	2022-03-08
11133381	307	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-07
11133362	308	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.4 ± 0.3	2022-03-07
11133375	309	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.4 ± 0.3	2022-03-08
11133365	400	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.2 ± 0.3	2022-03-08
11133373	402	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.9 ± 0.3	2022-03-08
11133356	407	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.7 ± 0.3	2022-03-08
11133360	409	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133359	409	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.7 ± 0.3	2022-03-08
11133368	411	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.8 ± 0.3	2022-03-08
11133364	412	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.9 ± 0.3	2022-03-08
11133372	412	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.8 ± 0.3	2022-03-08
11133354	412D	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	0.9 ± 0.3	2022-03-08
11133363	413	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.1 ± 0.3	2022-03-08
11133371	414	2022-03-01 @ 9:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-07
11133389	BOYS LOCKER ROOM	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	1.1 ± 0.3	2022-03-08
11133388	BOYS LOCKER ROOM OFFICE	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	0.8 ± 0.3	2022-03-08
11133391	BOYS LOCKER ROOM OFFICE	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	1.0 ± 0.3	2022-03-08
11133341	CAFETERIA	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	0.7 ± 0.3	2022-03-07
11133380	CAFETERIA	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-08
11133329	COUNSELOR LOUNGE ROOM	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	0.7 ± 0.3	2022-03-07
11133377	GIRLS LOCKER ROOM	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-07
11133392	GIRLSLOCKER ROOMOFFICE	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133390	GYM	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	0.6 ± 0.3	2022-03-07
11133396	GYM	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	< 0.3	2022-03-08
11133387	HEALTH ROOM	2022-03-01 @ 10:00 am	2022-03-04 @ 10:00 am	0.9 ± 0.3	2022-03-07
11133383	KITCHEN	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133384	KITCHEN	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133370	MAIN OFFICE	2022-03-01 @ 10:00 am	2022-03-04 @ 8:00 am	< 0.3	2022-03-07
11133326	MAIN OFFICE	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	1.1 ± 0.3	2022-03-08
11133322	MAIN OFFICE	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	< 0.3	2022-03-08
11133319	MAIN OFFICE	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	0.6 ± 0.3	2022-03-08
11133307	MAIN OFFICE	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	0.9 ± 0.3	2022-03-08
11133325	MAIN OFFICE	2022-03-01 @ 8:00 am	2022-03-04 @ 8:00 am	< 0.3	2022-03-08
11133378	STUDIP	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	1.0 ± 0.3	2022-03-08
11133399	WEIGHT ROOM	2022-03-01 @ 10:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-08

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

March 30, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**RSH
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139726	BASEMENT	2022-03-20 @ 8:00 am	2022-03-23 @ 7:00 am	0.9 ± 0.5	2022-03-30
11139725	DINING	2022-03-20 @ 8:00 am	2022-03-23 @ 7:00 am	< 0.3	2022-03-30

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Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools

Name of Schools:

1. Newport Mill MS
2. Rock View ES
3. Eastern MS
4. Blair, Montgomery HS
5. Montgomery Knolls ES
6. Northwood HS
7. Oakview ES
8. Pine Crest ES
9. Arcola ES
10. Glenallen ES

	Date	Initials
Radon Test Kits Deployed	03/01/2022	PM
Radon Test Kits Collected	03/04/2022	PM
Radon Test Kits Shipped to Lab*	03/04/2022	PM
Radon Test Kits Received by Lab*	03/07/2022	PM

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