



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Test Report	2/16/2023
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	1.5 pCi/L

Project Status:

1. Post mitigation testing completed.



February 16, 2023

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

Re: **Radon Testing Services**
KCI Job # 122210551

Location: Albert Einstein High School
11135 Newport Mill Road
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 Albert Einstein High School, located at 11135 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 January 10, 2023 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.

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 January 13, 2023 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Accustar Labs - MA for analysis by gamma-ray spectroscopy.

Accustar Labs - MA is a NRSB certified analytical laboratory for radon analysis (certification #ARL0017) located at 2 Saber Way, Ward Hill, MA 01835.

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 temperatures ranged from the 26°F to the mid 56°F. Maximum sustained winds ranged from 0-21 miles per hour. Average humidity was around 68% with .09 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		
Albert Einstein HS		
Test Period: 01/10/2023 - 01/13/2023		
Kit Number	Room / Area	Result
11287832	18	0.7
11288410	18	< 0.3
11288599	19	0.9
11288415	19A	1.5
11288574	19A	< 0.3

Table 2- Radon Testing Results			
Albert Einstein HS			
Test Period: 01/10/23 - 01/13/23			
Kit Number	QC Type	Room / Area	Result
11288410	D	18	< 0.3
11288574	FB	19A	< 0.3
11285162	OB	OFFICE BLANK	< 0.3
11284899	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Albert Einstein HS		
Test Period: 01/10/23 - 01/13/23		
Kit Number	Room/Area	Result
	N/A	

Summary of Missing, Compromised and \geq 4 piC/L Tests		
Albert Einstein HS		
Test Period: 01/10/23 - 01/13/23		
Kit Number	Room/Area	Result
	N/A	

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 16, 2023

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11288599	19	2023-01-10 @ 12:00 pm	2023-01-13 @ 11:00 am	0.9 ± 0.3	2023-01-16

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

January 16, 2023

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**ALBERT EINSTEIN
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11287832	18	2023-01-10 @ 1:00 pm	2023-01-13 @ 11:00 am	0.7 ± 0.3	2023-01-16
11288410	18	2023-01-10 @ 1:00 pm	2023-01-13 @ 11:00 am	< 0.3	2023-01-16
11288415	19A	2023-01-10 @ 12:00 pm	2023-01-13 @ 11:00 am	1.5 ± 0.3	2023-01-16
11288574	19A	2023-01-10 @ 12:00 pm	2023-01-13 @ 11:00 am	< 0.3	2023-01-16

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 KC1 TECHNOLOGIES, INC Job Number 208343

NOMINAL Conditions: Radon Conc 34.7 pCi/L Rel. Hum 49.4 % Temp. 69.6 F

Date Start: 12/24/22 Date Stop: 12/27/22 Date Start: _____ Date Stop: _____

Time Start: 0810 Time Stop: 0810 Time Start: _____ Time Stop: _____

Device No.'s: (5) CHAR BAGS - Device No.'s: _____

11285109, 11285110, 11285101

THRU 11285103

BY LEFT

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**

December 29, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

OFFICE

MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285110	SK1	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	31.7 ± 2.5	2022-12-29
11285101	SK2	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.1 ± 2.4	2022-12-29
11285103	SK3	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	34.0 ± 2.7	2022-12-29
11285102	SK4	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.9 ± 2.5	2022-12-29
11285109	SK5	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	32.0 ± 2.6	2022-12-29

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 – Week 1 January Schools

Name of Schools:

1. Woodfield ES
2. Montgomery Village MS
3. Albert Einstein HS
4. Garrett Park Annex
5. Garrett Park ES
6. Kensington-Parkwood ES
7. Silver Creek MS
8. Stephen Knolls School
9. Highland View ES
10. MacDonald Knolls ECC
11. Montgomery Knolls ES
12. Rock Terrace HS

	Date	Initials
Radon Test Kits Deployed	01/10/2023	BMM
Radon Test Kits Collected	01/13/2023	BMM
Radon Test Kits Shipped to Lab*	01/13/2023	BMM
Radon Test Kits Received by Lab*	01/17/2023	BMM

*All samples sent to Air Check, Inc., 2 Saber Way, Ward Hill, MA 01835



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Albert Einstein High 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	6
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.6 pCi/L

Project Status

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

Mitigation needed lower level 08, 09, 09A



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: Albert Einstein High School
11135 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 Albert Einstein High School, located at 11135 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 eight (8) 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		
Albert Einstein HS RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11131779	18	< 0.3
11131785	19	< 0.3
11131791	33	0.5
11131795	33	0.6
11131796	33	< 0.3
11131738	113	< 0.3
11131800	131	< 0.3
11131789	19A	0.6

Table 2- Radon Testing Results			
Albert Einstein RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11131791	D	33	0.5
11131796	FB	33	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

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

Summary of Missing, Compromised and >= 4 pIC/L Tests		
Albert Einstein HS 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:
ALBERT EINSTEIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131738	113	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131800	131	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131779	18	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131785	19	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131789	19A	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	0.6 ± 0.3	2022-04-04
11131791	33	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	0.5 ± 0.3	2022-04-04
11131795	33	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	0.6 ± 0.3	2022-04-04
11131796	33	2022-03-28 @ 9:00 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 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	Albert E. Einstein High 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	124
# Rooms \geq 4.0 pCi/L	3
Lowest Value	<0.3 pCi/L
Highest Value	4.4 pCi/L

Project Status:

Initial testing completed; Missing, elevated, 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: Albert E. Einstein High School
11135 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 Albert E. Einstein HS, located at 11135 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 one hundred and forty four (144) 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 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 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
≥4.0 pCi/L	8	4.4
	09A	4.3
	9	4.2
<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		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11122403	8	4.4
11122410	9	4.2
11122426	18	0.8
11122442	19	0.5
11122444	22	< 0.3
11122438	23	0.7
11122443	24	< 0.3
11122435	25	< 0.3
11122430	26	< 0.3
11122436	28	< 0.3
11122425	29	1.4
11122428	29	1.4
11122429	29	< 0.3
11122408	30	< 0.3
11122406	31	0.7
11122418	32	0.9
11122422	33	NA
11122413	34	1.0
11122419	35	< 0.3
11122414	37	0.7
11122421	38	< 0.3
11122427	38	< 0.3
11122412	39	1.1
11122480	101	< 0.3
11122479	102	< 0.3
11122483	112	< 0.3
11122470	114	0.9
11122473	115	1.0
11122474	115	1.2
11122453	117	1.1
11122457	121	0.8
11122460	130	< 0.3
11122456	132	< 0.3
11122461	134	< 0.3
11122462	136	< 0.3
11122446	137	< 0.3
11122401	138	< 0.3
11122459	138	0.8
11122455	140	< 0.3
11122466	142	< 0.3
11122465	144	< 0.3
11122424	146	< 0.3

Table 1- Radon Testing Results		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11122431	148	< 0.3
11134326	149	< 0.3
11122416	150	< 0.3
11122440	152	< 0.3
11134303	153	< 0.3
11122402	154	< 0.3
11134304	155	< 0.3
11134330	155	< 0.3
11122439	156	< 0.3
11134338	160	< 0.3
11134341	162	< 0.3
11134306	164	< 0.3
11134337	166	< 0.3
11134305	168	< 0.3
11134339	168	< 0.3
11134340	168	< 0.3
11134334	172	0.6
11134332	174	< 0.3
11134323	175	0.7
11134327	175	< 0.3
11134333	180	< 0.3
11134328	181	< 0.3
11134344	187	< 0.3
11134319	188	< 0.3
11134321	188	< 0.3
11134346	188	< 0.3
11122490	190	0.6
11122493	190	< 0.3
11122495	191	0.5
11122488	192	< 0.3
11134313	193	< 0.3
11122499	195	0.7
11134301	206	< 0.3
11134308	206	< 0.3
11134325	206	0.7
11134317	216	< 0.3
11134315	224	< 0.3
11134309	241	< 0.3
11134302	250	< 0.3
11134310	263	< 0.3
11134318	274	< 0.3
11122500	1007	< 0.3

Table 1- Radon Testing Results		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11134312	2040	< 0.3
11122405	09A	4.3
11122484	100 MAIN OFFICE	< 0.3
11122498	1007C	< 0.3
11122477	100A	< 0.3
11122472	100B	< 0.3
11122478	100C	< 0.3
11122481	100D	< 0.3
11122482	100D	< 0.3
11122485	100D	< 0.3
11122475	100E	< 0.3
11122476	100F	< 0.3
11122486	100G	0.5
11122471	100H	0.6
11122487	106B	< 0.3
11122468	115A	0.8
11122469	115B	1.3
11122464	115C	0.8
11122463	115D	0.8
11122441	115E	< 0.3
11122450	115E	1.9
11122454	115E	2.0
11122496	115F	0.9
11122467	115G	< 0.3
11122494	116 CAFETERIA	< 0.3
11122497	116 CAFETERIA	0.6
11122451	119A	0.7
11122452	119B	0.7
11122458	121A	< 0.3
11122447	135 MEDIA CENTER	< 0.3
11122448	135 MEDIA CENTER	< 0.3
11122432	135A	< 0.3
11122445	135A	< 0.3
11122449	135A	0.5
11122423	135B	< 0.3
11122437	135E	< 0.3
11134307	151L	< 0.3
11134342	155A	< 0.3
11134329	166A	< 0.3
11134343	189A	< 0.3
11122492	189O	0.9
11122489	190C	0.6

Table 1- Radon Testing Results		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11122433	19A	0.9
11122434	19A	0.8
11122415	25SM	< 0.3
11122407	29A	1.0
11122420	33A	1.2
11122417	38A	< 0.3
11122411	39B	< 0.3
11122409	39O	< 0.3
11134311	AUDITORIUM	0.9
11134314	AUDITORIUM	1.2
11122491	BOYS LOCKER ROOM	0.6
11134320	GIRLS LOCKER ROOM	< 0.3
11134331	GYM	< 0.3
11134335	GYM	< 0.3
11134322	SMALL GYM	0.9
11134345	SMALL GYM	1.7
11134336	WEIGHT ROOM	< 0.3
11134324	WRESTLING ROOM	< 0.3

Table 2- Radon Testing Results			
Albert E. Einstein HS			
Test Period: 02/28/2022 - 03/03/2022			
Kit Number	QC Type	Room / Area	Result
11122421	D	38	< 0.3
11122425	D	29	1.4
11122429	FB	29	< 0.3
11122434	D	19A	0.8
11122432	D	135A	< 0.3
11122445	FB	135A	< 0.3
11122401	D	138	< 0.3
11122450	D	115E	1.9
11122441	FB	115E	< 0.3
11122473	D	115	1.0
11122482	D	100D	< 0.3
11122481	FB	100D	< 0.3
11122490	D	190	0.6
11134321	D	188	< 0.3
11134346	FB	188	< 0.3
11134323	D	175	0.7
11134305	D	168	< 0.3
11134339	FB	168	< 0.3
11134325	D	206	0.7
11134301	FB	206	< 0.3
11130811	OB	OFFICE BLANK	< 0.3
11130816	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room/Area	Result
NA	113	NA
NA	131	NA

Summary of Missing, Compromised and ≥ 4 piC/L Tests		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room/Area	Result
11122403	08	4.4
11122510	09	4.2
11122405	09A	4.3
11122422	33	Compromised

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11122403	08	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	4.4 ± 0.5	2022-03-08
11122410	09	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	4.2 ± 0.5	2022-03-08
11122405	09A	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	4.3 ± 0.5	2022-03-08
11122484	100 MAIN OFFICE	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122500	1007	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122498	1007C	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11122477	100A	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-07
11122472	100B	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122478	100C	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-07
11122482	100D	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122481	100D	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122485	100D	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122475	100E	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122476	100F	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122486	100G	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.5 ± 0.4	2022-03-08
11122471	100H	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.6 ± 0.4	2022-03-08
11122480	101	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122479	102	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122487	106B	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122483	112	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122470	114	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.9 ± 0.3	2022-03-07
11122474	115	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.2 ± 0.4	2022-03-07
11122473	115	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.0 ± 0.4	2022-03-08
11122468	115A	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.3	2022-03-08
11122469	115B	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.3 ± 0.4	2022-03-08
11122464	115C	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.3	2022-03-08
11122463	115D	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.4	2022-03-08
11122454	115E	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	2.0 ± 0.4	2022-03-08
11122441	115E	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122450	115E	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.9 ± 0.4	2022-03-08
11122496	115F	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.9 ± 0.3	2022-03-08
11122467	115G	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122494	116 CAFETERIA	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-07
11122497	116 CAFETERIA	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.6 ± 0.3	2022-03-08
11122453	117	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.1 ± 0.4	2022-03-08
11122451	119A	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.7 ± 0.4	2022-03-08
11122452	119B	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.7 ± 0.3	2022-03-08

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11122457	121	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.3	2022-03-08
11122458	121A	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122460	130	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122456	132	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122461	134	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122448	135 MEDIA CENTER	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122447	135 MEDIA CENTER	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122445	135A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122432	135A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122449	135A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.5 ± 0.4	2022-03-08
11122423	135B	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122437	135E	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122462	136	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122446	137	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122459	138	2022-02-28 @ 12:00 pm	2022-03-03 @ 12:00 pm	0.8 ± 0.4	2022-03-08
11122401	138	2022-02-28 @ 12:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122455	140	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122466	142	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122465	144	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122424	146	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122431	148	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134326	149	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122416	150	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134307	151L	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122440	152	2022-02-28 @ 11:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134303	153	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122402	154	2022-02-28 @ 11:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134304	155	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134330	155	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134342	155A	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122439	156	2022-02-28 @ 11:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134338	160	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134341	162	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134306	164	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134337	166	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134329	166A	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134305	168	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11134340	168	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134339	168	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134334	172	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	0.6 ± 0.3	2022-03-07
11134332	174	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134327	175	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134323	175	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	0.7 ± 0.4	2022-03-08
11122426	18	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-07
11134333	180	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134328	181	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134344	187	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134346	188	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11134319	188	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134321	188	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134343	189A	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122492	189O	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11122442	19	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.5 ± 0.4	2022-03-08
11122493	190	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122490	190	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.6 ± 0.4	2022-03-08
11122489	190C	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.6 ± 0.4	2022-03-07
11122495	191	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.5 ± 0.3	2022-03-07
11122488	192	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134313	193	2022-02-28 @ 4:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122499	195	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11122433	19A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.9 ± 0.3	2022-03-07
11122434	19A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-08
11134312	2040	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11134301	206	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134308	206	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134325	206	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	0.7 ± 0.4	2022-03-08
11134317	216	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122444	22	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134315	224	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122438	23	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.4	2022-03-08
11122443	24	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134309	241	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11122435	25	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134302	250	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11122415	25SM	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122430	26	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134310	263	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134318	274	2022-02-28 @ 5:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122436	28	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122428	29	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.4 ± 0.4	2022-03-07
11122429	29	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11122425	29	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.4 ± 0.3	2022-03-07
11122407	29A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.0 ± 0.4	2022-03-08
11122408	30	2022-02-28 @ 10:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11122406	31	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	0.7 ± 0.4	2022-03-08
11122418	32	2022-02-28 @ 10:00 am	2022-03-03 @ 8:00 am	0.9 ± 0.4	2022-03-08
11122422	33	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	???? IF1	2022-03-07
11122420	33A	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	1.2 ± 0.4	2022-03-08
11122413	34	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	1.0 ± 0.3	2022-03-07
11122419	35	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122414	37	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.3	2022-03-08
11122427	38	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122421	38	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122417	38A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122412	39	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.1 ± 0.4	2022-03-08
11122411	39B	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122409	39O	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134314	AUDITORIUM	2022-02-28 @ 4:00 pm	2022-03-03 @ 10:00 am	1.2 ± 0.4	2022-03-07
11134311	AUDITORIUM	2022-02-28 @ 4:00 pm	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11122491	BOYS LOCKER ROOM	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.6 ± 0.3	2022-03-08
11134320	GIRLS LOCKER ROOM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134335	GYM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134331	GYM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134345	SMALL GYM	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	1.7 ± 0.3	2022-03-07
11134322	SMALL GYM	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11134336	WEIGHT ROOM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134324	WRESTLING ROOM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 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. Marshall, Thurgood ES
2. Ridgeview MS
3. Travilah ES
4. Flower Hill ES
5. Resnik, Judith A. ES
6. Strawberry Knolls ES
7. Whetstone ES
8. Laytonsville ES
9. Stedwick ES
10. Watkins Mill ES
11. Watkins Mill HS
12. Einstein, Albert E. HS

	Date	Initials
Radon Test Kits Deployed	02/28/2022	PM
Radon Test Kits Collected	03/03/2022	PM
Radon Test Kits Shipped to Lab*	03/3/2022	PM
Radon Test Kits Received by Lab*	03/5/2022	PM

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