



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Strawberry Knoll Elementary 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: Strawberry Knoll Elementary School
18820 Strawberry Knoll Rd.
Gaithersburg, MD 20879

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 Strawberry Knoll Elementary School, located at 18820 Strawberry Knoll Rd. Gaithersburg, MD 20879 (subject site).

Scope of Services:

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

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

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

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

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

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

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

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

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

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Strawberry Knoll ES RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11131786	FOSTER	< 0.3
11131787	FOSTER	< 0.3
11131788	FOSTER	< 0.3

Table 2- Radon Testing Results			
Strawberry Knoll ES RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11131786	D	Foster	< 0.3
11131787	FB	Foster	< 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:

STRAWBERRY KNOLL ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131786	FOSTER	2022-03-28 @ 8:00 am	2022-03-31 @ 8:00 am	< 0.3	2022-04-04
11131787	FOSTER	2022-03-28 @ 8:00 am	2022-03-31 @ 8:00 am	< 0.3	2022-04-04
11131788	FOSTER	2022-03-28 @ 8:00 am	2022-03-31 @ 8:00 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	Strawberry Knolls Elementary 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	76
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.3 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: Strawberry Knolls Elementary School
18820 Strawberry Knoll Rd.
Gaithersburg, MD 20879

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 Strawberry Knolls ES, located at 18820 Strawberry Knoll Rd. Gaithersburg, MD 20879 (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 eighty three (83) 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.

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- 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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Tyler P. McCleaf
Radon Measurement Provider
#111004 RT
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ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Strawberry Knolls ES		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11130952	1	< 0.3
11130983	2	< 0.3
11130940	3	< 0.3
11130937	4	< 0.3
11130934	5	< 0.3
11130935	5	< 0.3
11130954	6	< 0.3
11130942	7	< 0.3
11130939	8	< 0.3
11130936	9	0.6
11130960	10	1.3
11130959	11	< 0.3
11130977	12	< 0.3
11130978	13	< 0.3
11130974	14	0.8
11130975	15	0.6
11130976	15	< 0.3
11130980	16	0.6
11130971	17	1.2
11130969	18	< 0.3
11130945	19	0.6
11130946	20	< 0.3
11130951	21	< 0.3
11130950	22	0.8
11130995	103	< 0.3
11114488	104	< 0.3
11130955	104	0.6
11130996	112	< 0.3
11130967	120	0.8
11130973	122	0.6
11130956	124	< 0.3
11130984	126	1.3
11130990	148	0.9
11114500	163	0.8
11130953	181	< 0.3
11114499	189	0.6
11130961	191	0.6
11130970	1A	< 0.3
11130981	1B	< 0.3
11130938	2B	< 0.3
11130963	ADMIN SECRETARY	< 0.3
11130941	ART	0.8

Table 1- Radon Testing Results		
Strawberry Knolls ES		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11130932	ART OFFICE	< 0.3
11130962	ASSISTANT PRINCIPAL	0.6
11114498	BUILDING SERVICES MANAGER	< 0.3
11114483	CAFETERIA	< 0.3
11114484	CAFETERIA	< 0.3
11114493	CAFETERIA	< 0.3
11130988	CONFERENCE	1.0
11114491	DUAL PURPOSE	< 0.3
11130998	EC	< 0.3
11130948	ESOL	< 0.3
11130979	ESOL	0.7
11130982	ESOL	0.7
11130966	GYM OFFICE	0.7
11130991	HEALTH ROOM	1.1
11130994	K1	0.8
11130965	K2	0.8
11130989	K3	0.9
11130972	K4	< 0.3
11114487	KITCHEN OFFICE	< 0.3
11114492	LIBRARY	0.7
11114494	LIBRARY	< 0.3
11130986	MAIN OFFICE	< 0.3
11130999	MAIN OFFICE	< 0.3
11131000	MAIN OFFICE	< 0.3
11130933	MATERIAL PREP	0.7
11130943	MATERIAL PREP	< 0.3
11130944	MATERIAL PREP	0.5
11114497	MUSIC	< 0.3
11130957	NURSE OFFICE	0.8
11130997	P1	< 0.3
11130992	P2	< 0.3
11130968	P2 OBSERVATION	< 0.3
11130993	P2 OBSERVATION	0.6
11130964	PRINCIPAL	1.0
11130949	SPT	< 0.3
11114495	STAFF DEVELOPMENT	0.9
11114496	STAFF LOUNGE	< 0.3
11130947	STORAGE	0.7
11130987	TELEPHONE	< 0.3
11130958	TESTING	1
11130985	WORK ROOM	0.7
11130931	WORKROOM, 3	1.1

Table 2- Radon Testing Results			
Strawberry Knolls ES			
Test Period: 02/28/2022 - 03/03/2022			
Kit Number	QC Type	Room / Area	Result
11131000	D	Main office	< 0.3
11130986	FB	Main office	< 0.3
11130993	D	P2 observation	0.6
11130975	D	15	0.6
11130982	D	Esol	0.7
11130948	FB	Esol	< 0.3
11130935	D	5	< 0.3
11130933	D	Material prep	0.7
11130811	OB	OFFICE BLANK	< 0.3
11130816	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

March 8, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

STRAWBERRY KNOLL ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114488	104	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11114500	163	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-08
11114499	189	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.4	2022-03-08
11114498	BUILDING SERVICES MANAGER	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11114483	CAFETERIA	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11114484	CAFETERIA	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11114493	CAFETERIA	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11114491	DUAL PURPOSE	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11114492	LIBRARY	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.3	2022-03-07
11114494	LIBRARY	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11114497	MUSIC	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11114495	STAFF DEVELOPMENT	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.9 ± 0.4	2022-03-07
11114496	STAFF LOUNGE	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07

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

March 8, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**STRAWBERRY KNOLLS ES
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114487	KITCHEN OFFICE	2022-02-28 @ 10:00 am	2022-03-03 @ 11:00 am	< 0.3	2022-03-08

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

Radon test result report for:

STRAWBERRY KNOLL ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130952	1	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130960	10	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.3 ± 0.4	2022-03-07
11130995	103	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130955	104	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	0.6 ± 0.3	2022-03-08
11130959	11	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130996	112	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130977	12	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130967	120	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-07
11130973	122	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.3	2022-03-07
11130956	124	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130984	126	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	1.3 ± 0.3	2022-03-07
11130978	13	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130974	14	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.3	2022-03-07
11130990	148	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	0.9 ± 0.4	2022-03-08
11130976	15	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130975	15	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.4	2022-03-08
11130980	16	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.4	2022-03-08
11130971	17	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	1.2 ± 0.4	2022-03-08
11130969	18	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130953	181	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130945	19	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.4	2022-03-07
11130961	191	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.3	2022-03-07
11130970	1A	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130981	1B	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130983	2	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130946	20	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130951	21	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130950	22	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.3	2022-03-07
11130938	2B	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130940	3	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130937	4	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130935	5	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130934	5	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130954	6	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130942	7	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130939	8	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130936	9	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.6 ± 0.3	2022-03-07

Radon test result report for:

STRAWBERRY KNOLL ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130963	ADMIN SECRETARY	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-07
11130941	ART	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-08
11130932	ART OFFICE	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130962	ASSISTANT PRINCIPAL	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	0.6 ± 0.4	2022-03-08
11130988	CONFERENCE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	1.0 ± 0.4	2022-03-08
11130998	EC	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130979	ESOL	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.3	2022-03-07
11130948	ESOL	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130982	ESOL	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.4	2022-03-08
11130966	GYM OFFICE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	0.7 ± 0.4	2022-03-08
11130991	HEALTH ROOM	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	1.1 ± 0.4	2022-03-08
11130994	K1	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	0.8 ± 0.4	2022-03-08
11130965	K2	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	0.8 ± 0.4	2022-03-08
11130989	K3	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.9 ± 0.3	2022-03-07
11130972	K4	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130986	MAIN OFFICE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11131000	MAIN OFFICE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130999	MAIN OFFICE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130944	MATERIAL PREP	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.5 ± 0.3	2022-03-07
11130943	MATERIAL PREP	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11130933	MATERIAL PREP	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.4	2022-03-08
11130957	NURSE OFFICE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	0.8 ± 0.4	2022-03-08
11130997	P1	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-07
11130992	P2	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130993	P2 OBSERVATION	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	0.6 ± 0.4	2022-03-07
11130968	P2 OBSERVATION	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130964	PRINCIPAL	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	1.0 ± 0.4	2022-03-08
11130949	SPT	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11130947	STORAGE	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.4	2022-03-08
11130987	TELEPHONE	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11130958	TESTING	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	1.0 ± 0.3	2022-03-07
11130985	WORK ROOM	2022-02-28 @ 8:00 am	2022-03-03 @ 8:00 am	0.7 ± 0.4	2022-03-08
11130931	WORKROOM, 3	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.1 ± 0.4	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 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

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

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

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