



**MCPS RADON TESTING – EXECUTIVE SUMMARY**

Site Name	Darnestown Elementary School
Date of Test Report	02/23/2022
Round of Testing	Initial <b>Follow-up</b> Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	2
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.9 pCi/L

**Project Status**

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



February 23, 2022

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

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

Location: Darnestown Elementary School  
15030 Turkey Foot Rd.  
Darnestown, MD 20878

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 Darnestown Elementary School, located at 15030 Turkey Foot Rd. Darnestown, MD 20878 (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](http://www.epa.gov/radon).

KCI visited the site on January 18, 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 December 2021 testing period (i.e. test kit was deployed but not recovered),
2. Rooms with invalidated test kits from the December 2021 testing period (e.g. an open window in the room or disturbed test kit),
3. Rooms which were locked/inaccessible during the December 2021 testing period,
4. Rooms with elevated December 2021 results (i.e.  $\geq 3.5$  pCi/L),
5. Rooms previously tested for radon but not tested in December 2021, 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 January 21, 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 low 20°Fs and high temperatures ranged from the mid 20°Fs to the high 50°Fs. Maximum sustained winds ranged from 9-11 miles per hour. Average humidity was around 61% with 0.0 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	None	NA
<4.0 pCi/L	See Attachment B	

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

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

Sincerely,



Tyler P. McCleaf  
Radon Measurement Provider  
#111004 RT  
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 Spreadsheets

**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		
Darnestown ES RT		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106081	103	< 0.3
11106088	103	0.7
11106089	103	0.7
11106087	KITCHEN OFFICE	0.9



Table 2- Radon Testing Results			
Darnestown RT			
Test Period: 01/18/22-01/21/22			
Kit Number	QC Type	Room / Area	Result
11106089	D	103	0.7
11106081	FB	103	< 0.3



# ATTACHMENT C

## Laboratory Analytical Results

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January 27, 2022

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:  
**DARNESTOWN ES RT**  
**1**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11106081	103	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106088	103	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	0.7 ± 0.4	2022-01-26
11106089	103	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	0.7 ± 0.4	2022-01-26
11106087	KITCHEN OFFICE	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	0.9 ± 0.4	2022-01-26

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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 203404

NOMINAL Conditions: Radon Conc 16.2 pCi/L Rel. Hum 28.8 % Temp. 59.9 F

Date Start: 12/24/21 Date Stop: 12/27/21 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0809 Time Stop: 0809 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (2) Char Bags- Device No.'s: \_\_\_\_\_

9341721, 9341722

G4 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  $\mu$ R/h Elevation = 820 ft**

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December 31, 2021

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**SK**  
**MA** MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within  $\pm 25\%$  of the chamber's reference value (16.2 pCi/L).

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9341721	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	11.6 $\pm$ 0.9	2021-12-31
9341722	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	15.4 $\pm$ 1.2	2021-12-31

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### Radon Test Kit Chain of Custody

Project Name: MCPS Radon – December 2021 Schools Retesting

Name of Schools:

1. 45 Gude
2. Bethesda M&T
3. Darnestown ES
4. McDonald Knolls ECC
5. Shady Grove M&T

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	Date	Initials
Radon Test Kits Deployed	01/18/2022	DM
Radon Test Kits Collected	01/21/2022	DM
Radon Test Kits Shipped to Lab*	01/21/2022	DM
Radon Test Kits Received by Lab*	01/23/2022	DM

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



**MCPS RADON TESTING – EXECUTIVE SUMMARY**

Site Name	Darnestown Elementary School
Date of Test Report	01/20/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing <b>5 Year Testing</b> HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	50
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.9 pCi/L

**Project Status**

Current Project Status at this time: Testing Complete; missing locations to be sampled.





January 20, 2022

Mr. Richard Cox  
Indoor Air Quality Team Leader  
Montgomery County Public Schools  
Gaithersburg, MD 20879

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

Location: Darnestown Elementary School  
15030 Turkey Foot Rd.  
Darnestown, MD 20878

Dear Mr. Cox:

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 Darnestown Elementary School, located at 15030 Turkey Foot Rd. Darnestown, MD 20878 (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](http://www.epa.gov/radon).

KCI visited the site on December 14, 2021 and deployed fifty-seven (57) 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 December 17, 2021 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:

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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 low 30°Fs and high temperatures ranged from the mid 50°Fs to the high 60°Fs. Maximum sustained winds ranged from 3-12 miles per hour. Average humidity was around 50% with 0.0 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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
<b>≥4.0 pCi/L</b>	NA	NA
<b>&lt;4.0 pCi/L</b>	See Attachment B	

<b>Quality Control Samples</b>	
Results of Blank Canisters:	The office blanks, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L.
Adequate Laboratory Precision?	Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved.
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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.

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# ATTACHMENT A

## Floor Plan With Test Locations

# ATTACHMENT B

## Radon Test Summary Spreadsheets

**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		
Darnestown ES		
Test Period: 12/14/2021-12/17/2021		
Kit Number	Room / Area	Result
9348001	146	< 0.3
9348016	100 MAIN OFFICE	< 0.3
9348029	150	0.7
9348030	123	1
9348044	146	0.8
9348045	106	1.5
9348046	104	2.1
9348047	146	0.8
9348048	GYM	1.3
9348049	102	1.4
9348050	121	0.5
9348051	135	0.9
9348052	176	0.7
9348053	121	< 0.3
9348054	138	0.9
9348055	136	0.7
9348056	141	0.8
9348057	137	0.7
9348058	190	0.8
9348059	188	0.7
9348060	182	0.7
9348061	172	0.8
9348062	164	0.8
9348063	132	0.8
9348064	180	1.1
9348065	131	0.9
9348066	178	0.6
9348067	176	0.8
9348068	174	0.7
9348070	4	1.5
9348071	113	1.1
9348073	168	0.6
9348074	154	< 0.3
9348075	166	0.9
9348076	22	1
9348077	CAFETERIA	0.9
9348078	100C	0.5
9348079	CAFETERIA	0.9
9348080	100B	0.7
9348081	8	2.1
9348082	GYM	1.1
9348083	126	0.9

9348084	122	1.2
9348085	117	1.9
9348086	121	0.8
9348089	GYM	1.2
9348090	112A	1.4
9348091	119	0.8
9348092	108	1.6
9348093	115	1.1
9348094	100A	0.6
9348095	26	1
9348096	18	1
9348097	26	0.8
9348098	14	2.9
9348099	2	2.2
9348100	6	1.5



Table 2- Radon Testing Results			
Darnestown ES			
Test Period: 12/14/2021-12/17/2021			
Kit Number	QC Type	Room / Area	Result
9348052	D	176	0.7
9348047	D	146	0.8
9348001	FB	146	< 0.3
9348082	D	Gym	1.1
9348050	D	121	0.5
9348053	FB	121	< 0.3
9348097	D	26	0.8
9347000	OB	OFFICE BLANK	< 0.3
9346980	TB	TRAVEL BLANK	< 0.3



# ATTACHMENT C

## Laboratory Analytical Results

Radon test result report for:**DARNESTOWN ES****1**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9348099	002	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	2.2 ± 0.3	2021-12-20
9348070	004	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	1.5 ± 0.3	2021-12-20
9348100	006	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	1.5 ± 0.3	2021-12-20
9348081	008	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	2.1 ± 0.3	2021-12-20
9348098	014	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	2.9 ± 0.3	2021-12-20
9348096	018	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	1.0 ± 0.3	2021-12-20
9348076	022	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	1.0 ± 0.3	2021-12-20
9348097	026	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	0.8 ± 0.3	2021-12-20
9348095	026	2021-12-14 @ 11:00 am	2021-12-17 @ 11:00 am	1.0 ± 0.3	2021-12-20
9348016	100 MAIN OFFICE	2021-12-14 @ 12:00 pm	2021-12-17 @ 10:00 am	< 0.3	2021-12-20
9348094	100A	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	0.6 ± 0.3	2021-12-20
9348080	100B	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348078	100C	2021-12-14 @ 12:00 pm	2021-12-17 @ 10:00 am	0.5 ± 0.3	2021-12-20
9348049	102	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	1.4 ± 0.3	2021-12-20
9348046	104	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	2.1 ± 0.3	2021-12-20
9348045	106	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	1.5 ± 0.3	2021-12-20
9348092	108	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	1.6 ± 0.3	2021-12-20
9348090	112A	2021-12-14 @ 10:00 am	2021-12-17 @ 11:00 am	1.4 ± 0.3	2021-12-20
9348071	113	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	1.1 ± 0.3	2021-12-20
9348093	115	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	1.1 ± 0.3	2021-12-20
9348085	117	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	1.9 ± 0.3	2021-12-20
9348091	119	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348053	121	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	< 0.3	2021-12-20
9348050	121	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	0.5 ± 0.3	2021-12-20
9348086	121	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348084	122	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	1.2 ± 0.3	2021-12-20
9348030	123	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	1.0 ± 0.3	2021-12-20
9348083	126	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348065	131	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348063	132	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348051	135	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348055	136	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348057	137	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348054	138	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348056	141	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348044	146	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348047	146	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20

Radon test result report for:**DARNESTOWN ES****1**

<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9348001	146	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	< 0.3	2021-12-20
9348029	150	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348074	154	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	< 0.3	2021-12-20
9348062	164	2021-12-14 @ 10:00 am	2021-12-17 @ 11:00 am	0.8 ± 0.3	2021-12-20
9348075	166	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348073	168	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.6 ± 0.3	2021-12-20
9348061	172	2021-12-14 @ 10:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348068	174	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348067	176	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348052	176	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348066	178	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.6 ± 0.3	2021-12-20
9348064	180	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	1.1 ± 0.3	2021-12-20
9348060	182	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348059	188	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.7 ± 0.3	2021-12-20
9348058	190	2021-12-14 @ 9:00 am	2021-12-17 @ 10:00 am	0.8 ± 0.3	2021-12-20
9348079	CAFETERIA	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348077	CAFETERIA	2021-12-14 @ 11:00 am	2021-12-17 @ 10:00 am	0.9 ± 0.3	2021-12-20
9348048	GYM	2021-12-14 @ 10:00 am	2021-12-17 @ 11:00 am	1.3 ± 0.3	2021-12-20
9348089	GYM	2021-12-14 @ 10:00 am	2021-12-17 @ 11:00 am	1.2 ± 0.3	2021-12-20
9348082	GYM	2021-12-14 @ 10:00 am	2021-12-17 @ 11:00 am	1.1 ± 0.3	2021-12-20

**EXPOSURE IN BOWSER-MORNER RADON CHAMBER**

CLIENT KCI Technologies, Inc. Job Number 203404

NOMINAL Conditions: Radon Conc 16.2 pCi/L Rel. Hum 28.8 % Temp. 59.9 F

Date Start: 12/24/21 Date Stop: 12/27/21 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0809 Time Stop: 0809 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (2) Char Bags- Device No.'s: \_\_\_\_\_

9341721, 9341722

64 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  $\mu$ R/h Elevation = 820 ft**

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December 31, 2021

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**SK**  
**MA** MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within  $\pm 25\%$  of the chamber's reference value (16.2 pCi/L).

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9341721	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	11.6 $\pm$ 0.9	2021-12-31
9341722	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	15.4 $\pm$ 1.2	2021-12-31

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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 - December 2021 Schools

Name of Schools:

1. Ewing at Cloverleaf Center
2. Bethesda Main. & Tran.
3. Clarksburg ES Annex
4. Clarksburg Main. & Tran.
5. Taylor Learning Center
6. Darnestown ES
7. Shady Grove Main. & Tran.

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	Date	Initials
Radon Test Kits Deployed	12/14/2021	JM
Radon Test Kits Collected	12/17/2021	JM
Radon Test Kits Shipped to Lab*	12/17/2021	JM
Radon Test Kits Received by Lab*	12/18/2021	JM

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