



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Wootton High School
Date of Test Report	05/12/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	5
# 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 12, 2022

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

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

Location: Wootton High School
2100 Wootton Parkway
Rockville, MD 20850

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 Wootton High School, located at 2100 Wootton Parkway, Rockville, MD 20850 (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 22, 2022 and deployed seven (7) 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 25, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

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 40°Fs and high temperatures ranged from the low 50°Fs to the low 70°Fs. Maximum sustained winds ranged from 0-29 miles per hour. Average humidity was around 56% with 0.51 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		
Wootton HS RT		
Test Period: 03/22/2022 - 03/25/2022		
Kit Number	Room / Area	Result
11131733	107	< 0.3
11131726	109	< 0.3
11131715	112	< 0.3
11131751	149	< 0.3
11131734	100B	< 0.3
11131747	100B	< 0.3
11131759	100B	< 0.3

Table 2- Radon Testing Results			
Wootton HS RT			
Test Period: 03/22/2022 - 03/25/2022			
Kit Number	QC Type	Room / Area	Result
11131747	D	100b	< 0.3
11131759	FB	100b	< 0.3
11139902	OB	OFFICE BLANK	< 0.3
11139928	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

March 28, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WOOTTON HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131734	100B	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131747	100B	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131759	100B	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131733	107	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131726	109	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131715	112	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131751	149	2022-03-22 @ 2:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22 Date Start: _____ Date Stop: _____

Time Start: 0705 Time Stop: 0705 Time Start: _____ Time Stop: _____

Device No.'s: (5) Char Bags - Device No.'s: _____

11139367, 11139368, 11139371, _____

11139710, 11139717 _____

E3 Right

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST)
Background = 7 μ R/h Elevation = 820 ft



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Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

1. Herbert Hoover MS
2. Parkland MS
3. Redland MS
4. Rock Creek Valley ES
5. Tilden MS
6. Rockville HS
7. Wootton HS
8. Capt. James E. Daly ES
9. Clarksburg HS
10. Clearspring ES
11. Hallie Wells MS
12. Northwest HS
13. Paint Branch HS
14. Rocky Hills MS
15. Seneca Valley HS
16. Sherwood HS
17. Wilson Wims ES

	Date	Initials
Radon Test Kits Deployed	03/22/2022	BMM
Radon Test Kits Collected	03/25/2022	BMM
Radon Test Kits Shipped to Lab*	03/25/2022	BMM
Radon Test Kits Received by Lab*	03/28/2022	BMM

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

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Wootton High School
Date of Test Report	4/6/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	104
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.5 pCi/L

Project Status:

Initial testing completed; Missing or compromised kits need re-sampling.



April 6, 2022

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

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

Location: Wootton HS
2100 Wootton Parkway
Rockville, MD 20850

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 Wootton HS, located at 2100 Wootton Parkway Rockville, MD 20850 (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 7, 2022 and deployed one hundred and twenty two (122) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on February 10, 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 30s and high temperatures ranged from the mid 30s to the mid 50s Fahrenheit. Maximum sustained winds ranged from 3-12 miles per hour. Average humidity was around 23% with 0.1 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
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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
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ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

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D- Duplicate

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KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Wootton HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11113901	268	< 0.3
11113902	211	< 0.3
11113903	181	< 0.3
11113904	206	< 0.3
11113905	282	< 0.3
11113906	250	< 0.3
11113907	185A	0.7
11113908	290	< 0.3
11113909	19	1.0
11113910	110	< 0.3
11113911	221	< 0.3
11113912	231	< 0.3
11113913	248	< 0.3
11113914	279	< 0.3
11113915	CAFETERIA	0.6
11113916	13B	< 0.3
11113917	290	< 0.3
11113918	13B	< 0.3
11113919	GYM	< 0.3
11113921	118	< 0.3
11113922	174	< 0.3
11113923	148	0.8
11113924	CAFETERIA	< 0.3
11113925	124	< 0.3
11113926	290	< 0.3
11113928	13B	< 0.3
11113929	118A	< 0.3
11113930	GYM	0.6
11113931	15	0.5
11113932	13	0.9
11113933	106	< 0.3
11113934	125	1.0
11113935	113	< 0.3
11113936	108	< 0.3
11113938	RECEIVING	0.7
11113939	WEIGHT ROOM	1.0
11113940	111	< 0.3
11113941	125	< 0.3
11113942	123	< 0.3
11113945	105	< 0.3
11113948	125	0.7
11114002	150	< 0.3

Table 1- Radon Testing Results		
Wootton HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11114003	168	< 0.3
11114004	151	< 0.3
11114005	168	0.7
11114006	169	< 0.3
11114007	168	< 0.3
11114008	180	0.6
11114010	153	< 0.3
11114011	154	0.5
11114012	155	< 0.3
11114014	152	< 0.3
11114301	146	1.6
11114302	131	< 0.3
11114303	130A	< 0.3
11114304	130	< 0.3
11114305	173	< 0.3
11114306	181	0.7
11114307	148	< 0.3
11114308	160	< 0.3
11114309	130A	< 0.3
11114310	130	< 0.3
11114311	180	< 0.3
11114312	147	1.1
11114313	175	< 0.3
11114314	182	0.5
11114315	161	< 0.3
11114316	166	0.8
11114317	141	0.6
11114318	163	0.7
11114319	186	0.7
11114320	AUDITORIUM	< 0.3
11114322	183	1.5
11114323	167	< 0.3
11114324	174	< 0.3
11114325	146	1.1
11114326	144	< 0.3
11114327	189C	4.8
11114328	AUDITORIUM	< 0.3
11114329	185B	< 0.3
11114330	189	0.8
11114331	189B	1.2
11114332	ART OFFICE	< 0.3
11114333	143	0.9

Table 1- Radon Testing Results		
Wootton HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11114334	142	< 0.3
11114335	TV STUDIO	< 0.3
11114336	185A	< 0.3
11114337	103E	< 0.3
11114338	103K	< 0.3
11114339	188	< 0.3
11114340	102E	< 0.3
11114341	186B	0.9
11114342	162	0.6
11114343	103E	< 0.3
11114344	103L	< 0.3
11114345	103E	< 0.3
11114346	187	0.7
11114347	102B	< 0.3
11114348	102	< 0.3
11114349	184	0.8
11114350	103J	< 0.3
11114351	101	< 0.3
11114352	103C	< 0.3
11114353	103G	0.7
11114354	103D	< 0.3
11114355	103F	< 0.3
11114357	103I	< 0.3
11114358	100M	0.5
11114359	AUDITORIUM	< 0.3
11114360	KURTZ	< 0.3
11114361	104A	0.7
11114362	104	< 0.3
11114364	100E	< 0.3
11114365	104	< 0.3
11114366	100I	< 0.3
11114367	100G	< 0.3
11114368	100H	0.9
11114369	100C	< 0.3
11114370	MAIN OFFICE	0.6
11114371	100D	< 0.3
11114372	MAIN OFFICE	< 0.3
11114373	OFFICE	< 0.3

Table 2- Radon Testing Results			
Wootton HS			
Test Period: 02/7/2022 - 02/10/2022			
Kit Number	QC Type	Room / Area	Result
11114373	FB	Main office	< 0.3
11114370	D	Main office	0.6
11114362	D	104	< 0.3
11114343	FB	103E	< 0.3
11114337	D	103E	< 0.3
11114328	FB	Auditorium	< 0.3
11114320	D	Auditorium	< 0.3
11114303	D	130A	< 0.3
11114309	FB	130A	< 0.3
11114003	FB	168	< 0.3
11114007	D	168	< 0.3
11113926	FB	290	< 0.3
11113907	D	185A	0.7
11113922	D	174	< 0.3
11113923	D	148	0.8
11113919	D	Gym	< 0.3
11113924	D	Cafeteria	< 0.3
11113916	FB	13B	< 0.3
11113928	D	13B	< 0.3
11113948	D	125	0.7
11113941	FB	125	< 0.3
11113481	OB	OFFICE BLANK	< 0.3
11113483	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

February 15, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11113935	113	2022-02-07 @ 6:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113929	118A	2022-02-07 @ 6:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114372	MAIN OFFICE	2022-02-07 @ 10:00 am	2022-02-10 @ 12:00 pm	< 0.3	2022-02-14

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

Radon test result report for:
WOOTON HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114369	100C	2022-02-07 @ 10:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114351	101	2022-02-07 @ 12:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11114348	102	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114347	102B	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114340	102E	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114352	103C	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114354	103D	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114337	103E	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114343	103E	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114345	103E	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114355	103F	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114353	103G	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11114357	103I	2022-02-07 @ 12:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114350	103J	2022-02-07 @ 12:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114338	103K	2022-02-07 @ 12:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114344	103L	2022-02-07 @ 12:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114365	104	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114362	104	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114361	104A	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11113945	105	2022-02-07 @ 6:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113933	106	2022-02-07 @ 6:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113936	108	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113910	110	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113940	111	2022-02-07 @ 6:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113921	118	2022-02-07 @ 6:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113942	123	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113925	124	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113934	125	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	1.0 ± 0.3	2022-02-14
11113948	125	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	0.7 ± 0.3	2022-02-14
11113941	125	2022-02-07 @ 6:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113932	13	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	0.9 ± 0.3	2022-02-14
11114304	130	2022-02-07 @ 2:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114310	130	2022-02-07 @ 2:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114309	130A	2022-02-07 @ 2:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114303	130A	2022-02-07 @ 2:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11114302	131	2022-02-07 @ 2:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11113916	13B	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14

Radon test result report for:
WOOTON HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11113918	13B	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11113928	13B	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11114317	141	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11114334	142	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114333	143	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.9 ± 0.3	2022-02-14
11114326	144	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114301	146	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	1.6 ± 0.3	2022-02-14
11114325	146	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	1.1 ± 0.3	2022-02-14
11114312	147	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	1.1 ± 0.3	2022-02-14
11114307	148	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113923	148	2022-02-07 @ 5:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113931	15	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	0.5 ± 0.3	2022-02-14
11114002	150	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114004	151	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114014	152	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114010	153	2022-02-07 @ 3:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114011	154	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	0.5 ± 0.3	2022-02-14
11114012	155	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114308	160	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114315	161	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114342	162	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11114318	163	2022-02-07 @ 2:00 pm	2022-02-10 @ 5:00 pm	0.7 ± 0.3	2022-02-14
11114316	166	2022-02-07 @ 1:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11114323	167	2022-02-07 @ 1:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114007	168	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114005	168	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	0.7 ± 0.3	2022-02-14
11114003	168	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114006	169	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114305	173	2022-02-07 @ 2:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114324	174	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11113922	174	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11114313	175	2022-02-07 @ 1:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11114008	180	2022-02-07 @ 3:00 pm	2022-02-10 @ 4:00 pm	0.6 ± 0.3	2022-02-14
11114311	180	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11113903	181	2022-02-07 @ 3:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11114306	181	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	0.7 ± 0.3	2022-02-14
11114314	182	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	0.5 ± 0.3	2022-02-14

Radon test result report for:
WOOTON HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114322	183	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	1.5 ± 0.3	2022-02-14
11114349	184	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	0.8 ± 0.3	2022-02-14
11113907	185A	2022-02-07 @ 4:00 pm	2022-02-10 @ 4:00 pm	0.7 ± 0.3	2022-02-14
11114336	185A	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114329	185B	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114319	186	2022-02-07 @ 1:00 pm	2022-02-10 @ 5:00 pm	0.7 ± 0.3	2022-02-14
11114341	186B	2022-02-07 @ 1:00 pm	2022-02-10 @ 5:00 pm	0.9 ± 0.3	2022-02-14
11114346	187	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	0.7 ± 0.3	2022-02-14
11114339	188	2022-02-07 @ 12:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11114330	189	2022-02-07 @ 12:00 pm	2022-02-10 @ 4:00 pm	0.8 ± 0.3	2022-02-14
11114331	189B	2022-02-07 @ 12:00 pm	2022-02-10 @ 4:00 pm	1.2 ± 0.3	2022-02-14
11114327	189C	2022-02-07 @ 12:00 pm	2022-02-10 @ 4:00 pm	4.8 ± 0.4	2022-02-14
11113909	19	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	1.0 ± 0.3	2022-02-14
11113904	206	2022-02-07 @ 3:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113902	211	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113911	221	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113912	231	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113913	248	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113906	250	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113901	268	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113914	279	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113905	282	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113908	290	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113926	290	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11113917	290	2022-02-07 @ 4:00 pm	2022-02-10 @ 6:00 pm	< 0.3	2022-02-14
11114332	ART OFFICE	2022-02-07 @ 12:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114320	AUDITORIUM	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114328	AUDITORIUM	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11114359	AUDITORIUM	2022-02-07 @ 1:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11113915	CAFETERIA	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	0.6 ± 0.3	2022-02-14
11113924	CAFETERIA	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11113919	GYM	2022-02-07 @ 5:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113930	GYM	2022-02-07 @ 5:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11114360	KURTZ	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11114370	MAIN OFFICE	2022-02-07 @ 10:00 am	2022-02-10 @ 12:00 pm	0.6 ± 0.3	2022-02-14
11114373	OFFICE	2022-02-07 @ 10:00 am	2022-02-10 @ 12:00 pm	< 0.3	2022-02-14
11113938	RECEIVING	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	0.7 ± 0.3	2022-02-14

February 15, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

WOOTON HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114335	TV STUDIO	2022-02-07 @ 12:00 pm	2022-02-10 @ 5:00 pm	< 0.3	2022-02-14
11113939	WEIGHT ROOM	2022-02-07 @ 5:00 pm	2022-02-10 @ 5:00 pm	1.0 ± 0.3	2022-02-14

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

February 15, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**WOOTON HS
OFFICE**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114371	100D	2022-02-07 @ 10:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114364	100E	2022-02-07 @ 11:00 am	2022-02-11 @ 1:00 pm	< 0.3	2022-02-14
11114367	100G	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114368	100H	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	0.9 ± 0.3	2022-02-14
11114366	100I	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11114358	100M	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	0.5 ± 0.3	2022-02-14

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February 15, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**WOOTON HS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114009	156	2022-02-08 @ 9:00 am	2022-02-11 @ 12:00 pm	< 0.3	2022-02-14

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204186

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 50.1 % Temp. 70.9 F

Date Start: 2/18/22 Date Stop: 2/21/22 Date Start: _____ Date Stop: _____

Time Start: 0911 Time Stop: 0911 Time Start: _____ Time Stop: _____

Device No.'s: (3) Char Bags - Device No.'s: _____

11113484, 1112998, 20107126 _____

23 Right

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST)
Background = 7 μ R/h Elevation = 820 ft

April 6, 2022

**** LABORATORY ANALYSIS REPORT ****

Pg 1 of 1

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
11113484	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK1		1	27.9
11122998	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK2		1	26.0
20107126	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK3		1	27.6

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







ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – February 2022 Schools

Name of Schools:

1. Lincoln Center
2. Wootton HS
3. Rockville HS
4. Richard Montgomery HS
5. Rocking Horse Rd. Center
6. Blair G. Ewing Center
7. Twinbrook ES
8. Rock Creek Valley ES
9. Luxmanor ES
10. Tilden MS

	Date	Initials
Radon Test Kits Deployed	02/07/2022	
Radon Test Kits Collected	02/10/2022	
Radon Test Kits Shipped to Lab*	02/10/2022	
Radon Test Kits Received by Lab*	02/14/2022	

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