

## School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Jackson Road Elementary School		
Address:	900 Jackson Road		
	Silver Spring, MD 20904		
Reason for Testing:	Scheduled Re-Testing - <input checked="" type="checkbox"/> 2-year or <input type="checkbox"/> 5-year schedule <input checked="" type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> Building Envelope or HVAC Upgrades <input type="checkbox"/> New Construction – Addition or Facility		
Current Radon Status:	<input checked="" type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested (New Facility)		
Round of Testing:	<input type="checkbox"/> Initial Testing -or- <input checked="" type="checkbox"/> Follow-up Testing		
Testing Status:	<input checked="" type="checkbox"/> No Further Testing Needed -or- <input type="checkbox"/> Follow-Up Testing Required		

### Conclusion (When Testing Status is - No Further Testing Needed)

Mitigation -	Facility Radon Status:		
<input type="checkbox"/> Not Required <input checked="" type="checkbox"/> Consider ( $\geq 2.0$ & $< 4.0$ -pCi/L) <input type="checkbox"/> Required ( $\geq 4.0$ -pCi/L) Rooms:	<input checked="" type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	65	Lowest Value (pCi/L)	< 0.3
Number of Rooms ( $\geq 4.0$ -pCi/L)	0	Highest Value (pCi/L)	3.4

**Instructions:** Submit one testing report form per-facility. Include the following as attachments:

Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results – list of rooms by test result  $\geq 2.0$ -pCi/L;  $\geq 2.7$ -pCi/L;  $\geq 4.0$ -pCi/L; and  $\geq 8.0$ -pCi/L;
- QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;
- Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.

Attachment 2 – Laboratory Report(s)

Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

### Detector and Deployment

Detector/Device Type:	<input checked="" type="checkbox"/> Passive	<input checked="" type="checkbox"/> Charcoal Absorption (CAD) <input type="checkbox"/> Alpha Track (ATD) <input type="checkbox"/> Other
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Electret ion Chamber (EIC) <input type="checkbox"/> Electronic Integration (EID)
Other—Specify here:		
Detector/Device Name:	Air Chek – Radon Test Kits	
Manufacturer:	Radon Lab	
Person(s) Deploying or Retrieving Test Devices and certification number		Organization/Company
Tyler McCleaf, CSP – Cert. #111004-RMP		KCI Technologies, Inc.
Shannon King		KCI Technologies, Inc.
<i>If noncertified individuals, the qualified measurement professional providing oversight -</i>		
Tyler McCleaf, CSP – Cert. #111004-RMP		KCI Technologies, Inc.

### Testing

<input checked="" type="checkbox"/> Short-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	12/10/24	03/17/25
<input type="checkbox"/> Long-Term				12/13/24	03/20/25
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<i>If “Yes” please explain/detail in the space below:</i>					
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If “No” please explain/detail in the space below:</i>					

**Testing** (continued)

Round of Testing	Detectors Deployed				
	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Test Locations <sup>1</sup>	62	2	2	0	66
Duplicates <sup>2</sup>	7	1	0	0	8
Field Blanks <sup>3</sup>	3	1	0	0	4
Grand Total					78

1 – include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space ≤ 2,000-square feet; large spaces ≥ 2,000-square feet - 1 detector per 2,000-square feet or part thereof); and upper floors - 10% of all occupied or intended to be occupied rooms per floor (these are in addition to ground contact locations)

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

**Quality Assurance / Quality Control (QA/QC)**

A Quality Assurance plan that is consistent with ANSI/AARST MS-QA (Radon Measurement Systems Quality Assurance) was submitted under separate cover, and is available to review at the MCPS Radon Testing and Mitigation Program website. The following number of QA/QC samples are associated this facility.

Round of Testing	QA/QC Samples		Total
	Initial	Follow-Up	
Spikes <sup>1</sup>	Not applicable		10
Trip Blanks <sup>2</sup>	1	1	2
Office Blanks <sup>3, 4</sup>	1	1	2
			14

1 - 3% of EIC detectors; and 3% from each LOT of CAD and ATD detectors; a maximum of 6-spiked measurements per month for both EIC detectors and each LOT of CAD and ATD detectors.

2 – One per shipping container from start of detector deployment

3 – One per facility tested as devices are removed/allocated from the storage location for deployment;

4 - One additional blank, analyzed prior to deployment, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

**Quality Assurance / Quality Control** (continued)

Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quality Control measurements comply with QA/QC requirements in the submitted testing organization's/company's QA plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Round of Testing</b>	<b>Initial</b> <b>Follow-Up</b>
All Field, Trip and Office Blanks are $\leq$ (less than or equal to) to the Method Detection Limit?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples <sup>1</sup> , the higher value is $\leq 2x$ the lower value?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples <sup>1</sup> , Relative Percent Difference(s) (RPD) <sup>2</sup> are less than the Warning Level <sup>3</sup> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples <sup>1</sup> , Relative Percent Difference(s) (RPD) <sup>2</sup> are less than the Control Level <sup>3</sup> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1 – Duplicate Control – a “NO” response constitute a control failure and the space/location represented by the duplicate sample becomes an invalid measurement location and should be listed in the “Invalid Measurement Locations” Table attached to this report.

2 - The objective of duplicate tests is to assess the precision error of the measurement method or, how well two side-by-side measurements agree or disagree. Precision involving duplicates is calculated by using Relative Percent Difference (RPD). RPD is equal to the difference between the higher test result minus the lower value test result divided by the average of the two duplicate test results, multiplied by 100. The RPD result is then compared to the warning and control limits.

3 - The Warning Level is set at the deviation from ideal performance that would be expected to occur by chance only 5% of the time, and Control Limits are set at that deviation from ideal performance that would be expected to occur by chance only 1% of the time. The Warning Level indicates a potential problem, which should be investigated. The Control Level indicates that the measurement system should be subject to corrective action.

The control and warning levels for duplicates, based on the averaged duplicate test result, are -

Average concentration of the two duplicate test results	Warning Level	Control Level
< 2.0-pCi/L	1-pCi/L	Not applicable
Between 2.0 and 3.9-pCi/L	50% RPD	67% RPD
$\geq 4.0$ -pCi/L	28% RPD	36% RPD

## Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup>

Round of Testing	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Number of test locations:	62	1	2	0	65
Number of locations $\geq 8.0$ -pCi/L:	0	0	0	0	0
Number of locations $\geq 4.0$ and $\leq 8$ -pCi/L:	0	0	0	0	0
Number of locations $\geq 2.7$ and $< 4$ -pCi/L:	2	0	0	0	2
Number of locations $\geq 2.0$ and $< 2.7$ -pCi/L:	0	0	0	0	0
Number of missing required test locations <sup>3</sup> :	0	0	0	0	0
Number of failed duplicate control locations:	1	0	0	0	1
Percentage of missing test locations for the facility <sup>4,5</sup> :	0	0	0	0	0

1 – for locations with multiple test results, report consistent with Section 7.2(When Two Test Results Disagree) and 8.1.2 (Averaging) of ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings;

2 - the allowance is to be calculated individually for Ground-Contact and Upper-Level(s) Test Locations;

3 – includes missed or inaccessible locations upon deployment or retrieval, damaged (not able to analyze) and missing detectors upon retrieval;

4 – if all valid measurements are  $< 4.0$ -pCi/L and the total number of test locations are  $\geq 18$ , there is an allowance of  $\leq 33\%$ . If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;

5 – if any valid measurements are  $\geq 4.0$ -pCi/L and the total number of test locations are  $\geq 20$ , there is an allowance of  $\leq 25\%$  of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023.

## Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup> (continued)

Round of Testing	Initial	Follow-Up
Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<i>If Yes to both above – then Testing Status – ‘No Further Testing Needed’ mark ‘NA’ below and complete Conclusions section</i>		
<b>If No to either above, were all results obtained under 4.0-pCi/L and were sufficient valid measurements obtained?<sup>1,2</sup></b> <i>If Yes, then - ‘No Further Testing Needed’ complete Conclusion section on first page.</i> <i>If No, then - ‘Follow-up Testing Required’ continue below.</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

1 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of ≤33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance;  
 2 – if any valid measurements are ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the number the allowance.

## Follow-Up Testing

### Required –

- If an insufficient number (greater than the allowance provided above) of valid measurements were obtained during the initial round of testing (the “missing required test locations” in the table above);
- Any location test results ≥ 4.0-pCi/L;
- Any location where duplicates fail QC checks; and or
- At the discretion of MCPS IAQ Staff

Reason for Follow-Up Testing	Testing Procedure	Follow-up Result	Conclusion
Insufficient Number of Measurements	Follow same procedures as Initial Testing	Not Applicable	Follow Initial Testing procedures
Results $\geq 4.0$ -pCi/L	Deploy two Short-term follow-up tests and required blanks and duplicates; Average the results of the two tests	$\geq 4.0$	Mitigation Required
Failed QC checks		$\geq 2.0$ and $< 4.0$	Consider Mitigation
		$< 2.0$	Mitigation Not Required

- *If follow-up testing identifies additional spaces requiring additional testing it will be performed as part of the ongoing follow-testing round.*

# **Attachment 1:**

## **Summary Data Tables**

Table 1- Radon Testing Results		
Jackson Road Elementary School		
Test Period: 12/10/2024 - 12/13/2024		
Kit Number	Room / Area	Result
11903455	100	1.4
11893191	104	< 0.3
11903448	104	< 0.3
11903379	105	< 0.3
11904279	106	0.5
11893184	107	< 0.3
11903483	108	< 0.3
11903456	109	< 0.3
11903477	109	0.7
11903463	110	< 0.3
11904286	113	< 0.3
11904287	114	< 0.3
11904288	114	< 0.3
11904294	115	0.6
11904281	116	< 0.3
11904290	120	< 0.3
11904293	121	< 0.3
11904292	127	< 0.3
11904276	135	< 0.3
11904208	139	< 0.3
11904275	139	< 0.3
11904299	141	< 0.3
11904300	141	< 0.3
11904149	143	< 0.3
11904156	144	< 0.3
11904273	145	< 0.3
11904266	147	< 0.3
11893192	152	< 0.3
11904285	163	< 0.3
11893198	164	1.0
11904280	166	1.0
11893197	168	0.7
11893190	169	0.5
11893195	171	< 0.3
11893181	172	0.5
11904284	174	0.6
11904283	175	< 0.3



Table 1- Radon Testing Results		
Jackson Road Elementary School		
Test Period: 12/10/2024 - 12/13/2024		
Kit Number	Room / Area	Result
11904271	180	< 0.3
11904265	202	< 0.3
11893180	204	< 0.3
11893172	206	< 0.3
11893183	207	0.7
11893188	207	0.6
11893179	209	< 0.3
11893108	211	< 0.3
11893189	364	0.7
11903384	100A	1.2
11903380	103A	0.7
11904150	103A	0.6
11903472	103B	0.5
11903464	103C	0.9
11903471	103D	1.5
11904278	105A	< 0.3
11893182	144 OFFICE	< 0.3
11893166	209A	< 0.3
11893173	209B	< 0.3
11904274	APR	< 0.3
11904277	APR	< 0.3
11904147	ASSISTANT PRINCIPAL	< 0.3
11893193	CONFERENCE	< 0.3
11893194	COPY ROOM	< 0.3
11904297	GYM	< 0.3
11904298	GYM	1.0
11904148	GYM OFFICE	< 0.3
11893186	HEALTH	< 0.3
11893187	HEALTH	< 0.3
11893185	MAIN OFFICE	< 0.3
11903376	MEDIA	1.8
11903447	MEDIA	1.3
11904295	MEDIA OFFICE	3.4
11904296	MEDIA OFFICE	3.3
11904282	MEDIA WORKROOM	< 0.3

Table 1- Radon Testing Results		
Jackson Road Elementary School		
Test Period: 12/10/2024 - 12/13/2024		
Kit Number	Room / Area	Result
11904289	MEDIA WORKROOM	1.6
11893196	PRINCIPAL	< 0.3

[illegible]

Table 3 - QC Radon Testing Results			
Jackson Road Elementary School			
Test Period: 12/10/2024 - 12/13/2024			
Kit Number	QC Type	Room / Area	Result
11893191	FB	104	< 0.3
11903477	D	109	0.7
11904287	D	114	< 0.3
11904208	FB	139	< 0.3
11904299	D	141	< 0.3
11893188	D	207	0.6
11904150	D	103a	0.6
11893187	D	Health	< 0.3
11904295	D	Media Office	3.4
11904282	FB	Media Workroom	< 0.3
11907194	OB	OFFICE BLANK	< 0.3
11907193	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation											
Jackson Road Elementary School											
Test Period: 12/09/2024 - 12/13/2024											
Sample ID			Duplicate Concentrations (pCi/L) and OC Checks								
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3	
11893186	11893187	Health	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓	
11904300	11904299	141	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓	
11893183	11893188	207	0.7	0.6	✓	1.2	PASS	0.7	<1-pCi/L	✓	
11904296	11904295	Media office	3.4	3.3	✓	6.6	PASS	3.4	3.0%	✓	
11904288	11904287	114	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓	
11903380	11904150	103A	0.7	0.6	✓	1.2	PASS	0.7	<1-pCi/L	✓	
11903456	11903477	109	0.7	0.3	✓	0.6	FAIL	0.5	<1-pCi/L	✗	
<b>NOTES:</b> QC Check #1 - Data Entry QC Check #2 - Higher duplicate concentration is < or = to 2x the Lower QC Check #3 - Meets RPD Limits, by average duplicate concentration - enter 2 if RPD is BELOW warning and control levels, AND passes QC Check 1 and 2 - enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2 - enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2								Average (pCi/L)	Warning Level	Control Level	
								< 2.0	1-pCi/L	NA	
								Between 2.0 and 3.9	50% RPD	67% RPD	
								≥ 4.0	28% RPD	36% RPD	

[illegible]

Table 1- Radon Testing Results		
Jackson Road Elementary School RT		
Test Period: 3/17/2025 - 3/20/2025		
Kit Number	Room / Area	Result
11892459	109	< 0.3
11892460	109	< 0.3
11892461	109	< 0.3
11892462	109	< 0.3

[illegible]



Table 3 - QC Radon Testing Results			
Jackson Road Elementary School			
Test Period: 3/17/2025 - 3/20/2025			
Kit Number	QC Type	Room / Area	Result
11892462	D	109	< 0.3
11892460	FB	109	< 0.3
11892482	OB	OFFICE BLANK	< 0.3
11892483	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Jackson Road Elementary School RT										
Test Period: 3/17/2025 - 3/20/2025										
Sample ID			Duplicate Concentrations (pCi/L) and QC Checks							
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3
11892462	11892459 11892461	109	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
<b>NOTES:</b> QC Check #1 - Data Entry QC Check #2 - Higher duplicate concentration is < or = to 2x the Lower QC Check #3 - Meets RPD Limits, by average duplicate concentration - enter 2 if RPD is BELOW warning and control levels, AND passes QC Check 1 and 2 - enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2 - enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2							Average (pCi/L)		Warning Level	Control Level
							< 2.0		1-pCi/L	NA
							Between 2.0 and 3.9		50% RPD	67% RPD
							≥ 4.0		28% RPD	36% RPD

[illegible]

# **Attachment 2:**

## **Laboratory Reports**

Radon test result report for:**JACKSON RD. ES  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11903455	100	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	1.4 ± 0.3	2024-12-16
11903384	100A	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	1.2 ± 0.3	2024-12-16
11904150	103A	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.6 ± 0.3	2024-12-16
11903380	103A	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.7 ± 0.3	2024-12-16
11903472	103B	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.5 ± 0.3	2024-12-16
11903464	103C	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.9 ± 0.3	2024-12-16
11903471	103D	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	1.5 ± 0.3	2024-12-16
11903448	104	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893191	104	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11903379	105	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904278	105A	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904279	106	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.5 ± 0.3	2024-12-16
11893184	107	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11903483	108	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11903456	109	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11903477	109	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.7 ± 0.3	2024-12-16
11903463	110	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904286	113	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904287	114	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904288	114	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904294	115	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.6 ± 0.3	2024-12-16
11904281	116	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904290	120	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904293	121	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904292	127	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904276	135	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904275	139	2024-12-10 @ 8:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904208	139	2024-12-10 @ 8:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904300	141	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904299	141	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904149	143	2024-12-10 @ 8:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904156	144	2024-12-10 @ 8:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893182	144 OFFICE	2024-12-10 @ 8:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904273	145	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904266	147	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893192	152	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904285	163	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16

Radon test result report for:**JACKSON RD. ES  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11893198	164	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	1.0 ± 0.3	2024-12-16
11904280	166	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	1.0 ± 0.3	2024-12-16
11893197	168	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	0.7 ± 0.3	2024-12-16
11893190	169	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	0.5 ± 0.3	2024-12-16
11893195	171	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893181	172	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	0.5 ± 0.3	2024-12-16
11904284	174	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	0.6 ± 0.3	2024-12-16
11904283	175	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904271	180	2024-12-10 @ 8:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904265	202	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893180	204	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893172	206	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893188	207	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	0.6 ± 0.3	2024-12-16
11893183	207	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	0.7 ± 0.3	2024-12-16
11893179	209	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893166	209A	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893173	209B	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893108	211	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893189	364	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	0.7 ± 0.3	2024-12-16
11904277	APR	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904274	APR	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904147	ASSISTANT PRINCIPAL	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893193	CONFERENCE	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893194	COPY ROOM	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11904297	GYM	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11904298	GYM	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	1.0 ± 0.3	2024-12-16
11904148	GYM OFFICE	2024-12-10 @ 9:00 am	2024-12-13 @ 9:00 am	< 0.3	2024-12-16
11893187	HEALTH	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893186	HEALTH	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893185	MAIN OFFICE	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11903376	MEDIA	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	1.8 ± 0.3	2024-12-16
11903447	MEDIA	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	1.3 ± 0.3	2024-12-16
11904295	MEDIA OFFICE	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	3.4 ± 0.4	2024-12-16
11904296	MEDIA OFFICE	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	3.3 ± 0.4	2024-12-16
11904289	MEDIA WORKROOM	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	1.6 ± 0.3	2024-12-16
11904282	MEDIA WORKROOM	2024-12-10 @ 9:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16
11893196	PRINCIPAL	2024-12-10 @ 8:00 am	2024-12-13 @ 8:00 am	< 0.3	2024-12-16

December 16, 2024

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

Radon test result report for:

**OFFICE  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477899	O	2024-12-09 @ 10:00 am	2024-12-12 @ 11:00 am	< 0.3	2024-12-16
11907194	O	2024-12-10 @ 10:00 am	2024-12-13 @ 11:00 am	< 0.3	2024-12-16

December 16, 2024

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

Radon test result report for:

**TRAVEL  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11482789	T	2024-12-09 @ 10:00 am	2024-12-12 @ 11:00 am	< 0.3	2024-12-16
11907193	T	2024-12-10 @ 10:00 am	2024-12-13 @ 11:00 am	< 0.3	2024-12-16



# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20001560

NOMINAL Conditions: Radon Conc 50.6 pCi/L Rel. Hum 50.6 % Temp. 70.8 F

Date Start: 12/14/24 Date Stop: 12/17/24 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0815 Time Stop: 0815 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (3) CHAR BAGS Device No.'s: \_\_\_\_\_

11477880, 11477883, 11477896 \_\_\_\_\_

B4 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  $\mu$ R/h Elevation = 820 ft

December 23, 2024

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

Radon test result report for:

**SK  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477880	SK1	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	52.0 ± 4.2	2024-12-23
11477883	SK2	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	54.6 ± 4.4	2024-12-23
11477896	SK3	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	45.5 ± 3.6	2024-12-23



## Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing December 10<sup>th</sup> – December 13<sup>th</sup>, 2024

Name of Schools:

1. Jackson Road ES
2. John F. Kennedy HS

3. Montgomery Knolls ES

---

	Date	Initials
Radon Test Kits Deployed	12/10/2024	BMM
Radon Test Kits Collected	12/13/2024	BMM
Radon Test Kits Shipped to Lab*	12/13/2024	BMM
Radon Test Kits Received by Lab*	12/16/2024	BMM

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

March 24, 2025

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

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892459	109	2025-03-17 @ 1:00 pm	2025-03-20 @ 2:00 pm	< 0.3	2025-03-24
11892460	109	2025-03-17 @ 1:00 pm	2025-03-20 @ 2:00 pm	< 0.3	2025-03-24
11892461	109	2025-03-17 @ 1:00 pm	2025-03-20 @ 2:00 pm	< 0.3	2025-03-24
11892462	109	2025-03-17 @ 1:00 pm	2025-03-20 @ 2:00 pm	< 0.3	2025-03-24

April 7, 2025

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

Radon test result report for:

**OFFICE  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892482	OB	2025-03-17 @ 11:00 am	2025-03-21 @ 11:00 am	< 0.3	2025-03-24

April 7, 2025

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

Radon test result report for:

**TRAVEL  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892483	TB	2025-03-17 @ 11:00 am	2025-03-21 @ 11:00 am	< 0.3	2025-03-24

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20002919

NOMINAL Conditions: Radon Conc 7.0 pCi/L Rel. Hum 51.4 % Temp. 70.7 F

Date Start: 3/7/25 Date Stop: 3/10/25 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0832 Time Stop: 0832 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (7) CHAR BAGS Device No.'s: \_\_\_\_\_

11886401 thru 11886406,

11886410

G3 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  $\mu$ R/h Elevation = 820 ft

---

March 19, 2025

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

---

Radon test result report for:

**QC**  
**MAIN**

---

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886401	SK1	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.8 ± 1.1	2025-03-19
11886405	SK2	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.1 ± 1.1	2025-03-19
11886406	SK3	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.7 ± 1.1	2025-03-19
11886403	SK4	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.9 ± 1.2	2025-03-19
11886404	SK5	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.6 ± 1.2	2025-03-19
11886410	SK6	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.0 ± 1.1	2025-03-19
11886402	SK7	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	8.6 ± 1.2	2025-03-19

---

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 – Re-Testing March 17<sup>th</sup> – March 20<sup>th</sup>, 2025

Name of Schools:

1. Georgian Forest ES
2. Glen Haven ES
3. Jackson Road ES
4. John F. Kennedy HS

---

	Date	Initials
Radon Test Kits Deployed	3/17/2025	BNUU
Radon Test Kits Collected	3/20/2025	BNUU
Radon Test Kits Shipped to Lab*	3/20/2025	BNUU
Radon Test Kits Received by Lab*	3/24/2025	BNUU

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

## School / Facility Radon Testing Report Form

**Instructions:** Submit one testing report form per-facility per-round of testing. Include the following as attachments:

Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results – list of rooms by test result  $\geq 2.0$ -pCi/L;  $\geq 2.7$ -pCi/L;  $\geq 4.0$ -pCi/L; and  $\geq 8.0$ -pCi/L;
- QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;
- Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.

Attachment 2 – Laboratory Report(s)

Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

School Year: **23-24**

Facility:	Jackson Road Elementary School
Address:	900 Jackson Road
	Silver Spring, MD 20904

Reason for Testing:	<input checked="" type="checkbox"/> Scheduled Re-Testing (2 or 5-year schedule) <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> System(s) Performance Testing (Post-Mitigation) <input type="checkbox"/> New Construction/Facility
Facility Current Radon Status:	<input checked="" type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested
Round of Testing:	<input type="checkbox"/> Initial Testing -or- <input checked="" type="checkbox"/> Follow-up Testing
Testing Status:	<input checked="" type="checkbox"/> No Further Testing Needed -or- <input type="checkbox"/> Follow-Up Testing Required

**Conclusion** (When Testing Status is - No Further Testing Needed)

Mitigation -	Facility Radon Status:
<input type="checkbox"/> Not Required or Considered <input type="checkbox"/> Required ( $>8.0$ -pCi/L) <input checked="" type="checkbox"/> Required ( $\geq 4.0$ -pCi/L) <input type="checkbox"/> Consider ( $\geq 2.0$ & $<4.0$ -pCi/L) Room: 164	<input checked="" type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)

## School / Facility Radon Testing Report Form

### Detector and Deployment

Detector/Device Type:	<input checked="" type="checkbox"/> Passive	<input checked="" type="checkbox"/> Charcoal Absorption (CAD)	<input type="checkbox"/> Alpha Track (ATD)	<input type="checkbox"/> Other
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Electret ion Chamber (EIC)	<input type="checkbox"/> Electronic Integration (EID)	
	Other—Specify here:			
Detector/Device Name:	Air Chek – Radon Test Kits			
Manufacturer:	Radon Lab			
Person(s) Deploying or Retrieving Test Devices and certification number			Organization/Company	
Tyler McCleaf			KCI Technologies, Inc.	
If noncertified individuals, the qualified measurement professional providing oversight -				
Tyler McCleaf, CSP – Cert. #111004-RMP			KCI Technologies, Inc.	

### Testing

<input checked="" type="checkbox"/> Short-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	02/20/2024
<input type="checkbox"/> Long-Term				02/23/2024
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If “Yes” please explain/detail in the space below:				
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If “No” please explain/detail in the space below:				

**Testing (continued)**

	Detectors Deployed		
	Ground-Contact	Upper-Level(s)	Total
Test Locations <sup>1</sup>	2	0	2
Duplicates <sup>2</sup>	1	0	1
Field Blanks <sup>3</sup>	1	0	1
Grand Total			4

1 – include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space  $\leq$  2,000-square feet; large spaces  $\geq$  2,000-square feet - 1 detector per 2,000-square feet or part thereof); and upper floors - 10% of all occupied or intended to be occupied rooms per floor (these are in addition to ground contact locations)

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

**Quality Assurance / Quality Control (QA/QC)**

A Quality Assurance plan that is consistent with ANSI/AARST MS-QA (Radon Measurement Systems Quality Assurance) was submitted under separate cover, and is available to review at the MCPS Radon Testing and Mitigation Program website. The following number of QA/QC samples are associated this facility.

Spike Samples <sup>1</sup>	6	Trip Blank(s) <sup>2</sup>	1	Office Blank(s) <sup>3,4</sup>	1
----------------------------	---	----------------------------	---	--------------------------------	---

1 - 3% of EIC detectors; and 3% from each LOT of CAD and ATD detectors; a maximum of 6-spiked measurements per month for both EIC detectors and each LOT of CAD and ATD detectors.

2 – One per shipping container from start of detector deployment

3 – One per facility tested as devices are removed/allocated from the storage location for deployment;

4 - One additional blank, analyzed prior to deployment, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm$ 25% of the chamber's reference value.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quality Control measurements comply with QA/QC requirements in the QA plan previously submitted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## Quality Assurance / Quality Control (QA/QC) (continued)

If “No” to either, please describe any QC measurements that were missing or outside of control tolerances established in the QAP here:

## Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup>

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	2	0	2
Number of locations $\geq 8.0$ -pCi/L:	0	0	0
Number of locations $\geq 4.0$ and $\leq 8$ -pCi/L:	1	0	1
Number of locations $\geq 2.7$ and $\leq 4$ -pCi/L:	1	0	1
Number of locations $\geq 2.0$ and $\leq 4$ -pCi/L:	0	0	0
Number of missing required test locations <sup>3</sup> :	0	0	0
Percentage of missing test locations for the facility <sup>4,5</sup> :	0	0	0

1 – for locations with multiple test results, report consistent with Section 7.2(When Two Test Results Disagree) and 8.1.2 (Averaging) of ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings;

2 - the allowance is to be calculated individually for Ground-Contact and Upper-Level(s) Test Locations;

3 – includes missed or inaccessible locations upon deployment or retrieval, damaged (not able to analyze) and missing detectors upon retrieval;

4 – if all valid measurements are  $< 4.0$ -pCi/L and the total number of test locations are  $\geq 18$ , there is an allowance of  $\leq 33\%$ . If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;

5 – if any valid measurements are  $\geq 4.0$ -pCi/L and the total number of test locations are  $\geq 20$ , there is an allowance of  $\leq 25\%$  of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023.

## School / Facility Radon Testing Report Form

### Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup> (continued)

Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>If Yes to both above – then Testing Status – ‘No Further Testing Needed’ mark ‘NA’ below and complete Conclusions section</b>	
<b>If No to either above, were all results obtained under 4.0-pCi/L and were there sufficient valid measurements obtained?<sup>1,2</sup></b> <b>If Yes – then Testing Status - ‘No Further Testing Needed’ complete Conclusion section</b> <b>If No, then Testing Status - ‘Follow-up Testing Required’ continue below</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

1 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of ≤33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance;  
 2 – if any valid measurements are ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the number the allowance.

- **If ‘No Further Testing Needed’** complete conclusions section on first page.
- **If ‘Follow-up Testing Required’** – complete Follow-up Testing described below and the conclusion section on the first page for only the valid measurements/results obtained

### Follow-Up Testing (if required)

Required if –

- 1- Not enough valid results were obtained from a facility (table above);
- 2- Any results ≥ 4.0 – pCi/L; and
- 3- At the discretion of MCPS IAQ Staff

Follow-up Testing:

- 1- If an insufficient number of valid measurements obtained during initial round:
  - return to facility to test locations that require valid measurements
- 2- Follow-up Testing for valid measurements ≥ 4.0-pCi/L

Initial Result(s)	Procedure	Follow-up Result	Conclusion
≥ 4.0-pCi/L	1- Short-term follow-up test 2- Average the results of the two tests	≥4.0	Mitigation Required
		<4.0 but >2.0	Consider Mitigation
		<2.0	Not Required or Considered

- **Complete second School/Facility Radon Testing Report Form for only Follow-up Testing locations.**

# **Attachment 1:**

## **Summary Data Tables**

Table 1- Radon Retesting Results		
Jackson Road Elementary School		
Test Period: 02/20/2024 - 02/23/2024		
Kit Number	Room / Area	Result
11477838	164	4.1
11478499	164	3.9
11477846	MEDIA	<0.3
11477848	MEDIA	1.4
11477853	MEDIA	1.8



Table 3 - QC Radon Retesting Results			
Jackson Road Elementary School			
Test Period: 02/20/2024 - 02/23/2024			
Kit Number	QC Type	Room / Area	Result
11477846	FB	MEDIA	<0.3
11477853	D	MEDIA	1.8

[illegible]

[illegible]

# **Attachment 2:**

## **Laboratory Reports**

February 28, 2024

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

Radon test result report for:  
**JACKSON RD ES**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477838	164	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	4.1 ± 0.4	2024-02-27
11478499	164	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	3.9 ± 0.4	2024-02-27
11477846	MEDIA	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	< 0.3	2024-02-27
11477848	MEDIA	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	1.4 ± 0.3	2024-02-27
11477853	MEDIA	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	1.8 ± 0.4	2024-02-27

February 27, 2024

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

Radon test result report for:

**KCI**

**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477832	OB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27
11482793	OB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27
11477841	TB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27
11482795	TB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27

January 29, 2024

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

Radon test result report for:

**STORAGE  
KCI**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11635097	Storage	2024-01-07 @ 9:00 am	2024-01-11 @ 9:00 am	< 0.3	2024-01-15

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, Inc Job Number 213 819

NOMINAL Conditions: Radon Conc 50.0 pCi/L Rel. Hum 28.9 % Temp. 69.1 F

Date Start: 2/23/24 Date Stop: 2/26/24 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0812 Time Stop: 0812 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (6) CHAR BAGS Device No.'s: \_\_\_\_\_

11478400, 11477842, 11477845, \_\_\_\_\_

11477852, 11477996, 11477999 \_\_\_\_\_

E3 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



March 1, 2024

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

Radon test result report for:

**FEB SK  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477842	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	50.3 ± 4.0	2024-03-01
11477845	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	55.3 ± 4.4	2024-03-01
11477852	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	49.4 ± 4.0	2024-03-01
11477996	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	49.8 ± 4.0	2024-03-01
11477999	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	55.4 ± 4.4	2024-03-01
11478400	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	47.0 ± 3.8	2024-03-01



## Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing February 20<sup>th</sup> – February 23<sup>rd</sup>, 2024

Name of Schools:

- |                    |                     |
|--------------------|---------------------|
| 1. Cabin Branch ES | 5. JFK HS           |
| 2. Clarksburg HS   | 6. John T. Baker MS |
| 3. Fairland ES     | 7. White Oak MS     |
| 4. Jackson Road ES |                     |
- 

	Date	Initials
Radon Test Kits Deployed	02/20/2024	JM
Radon Test Kits Collected	02/23/2024	AM
Radon Test Kits Shipped to Lab*	02/23/2024	AM
Radon Test Kits Received by Lab*	02/27/2024	AM

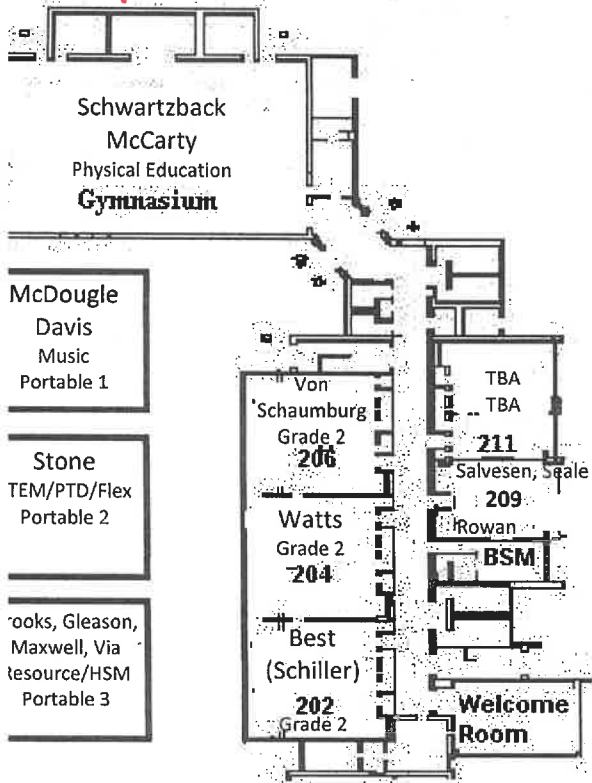
\*All samples sent to Air Check, Inc., 2 Saber Way, Ward Hill, MA 01835

**Attachment 3:**  
**Sampling Location Map**

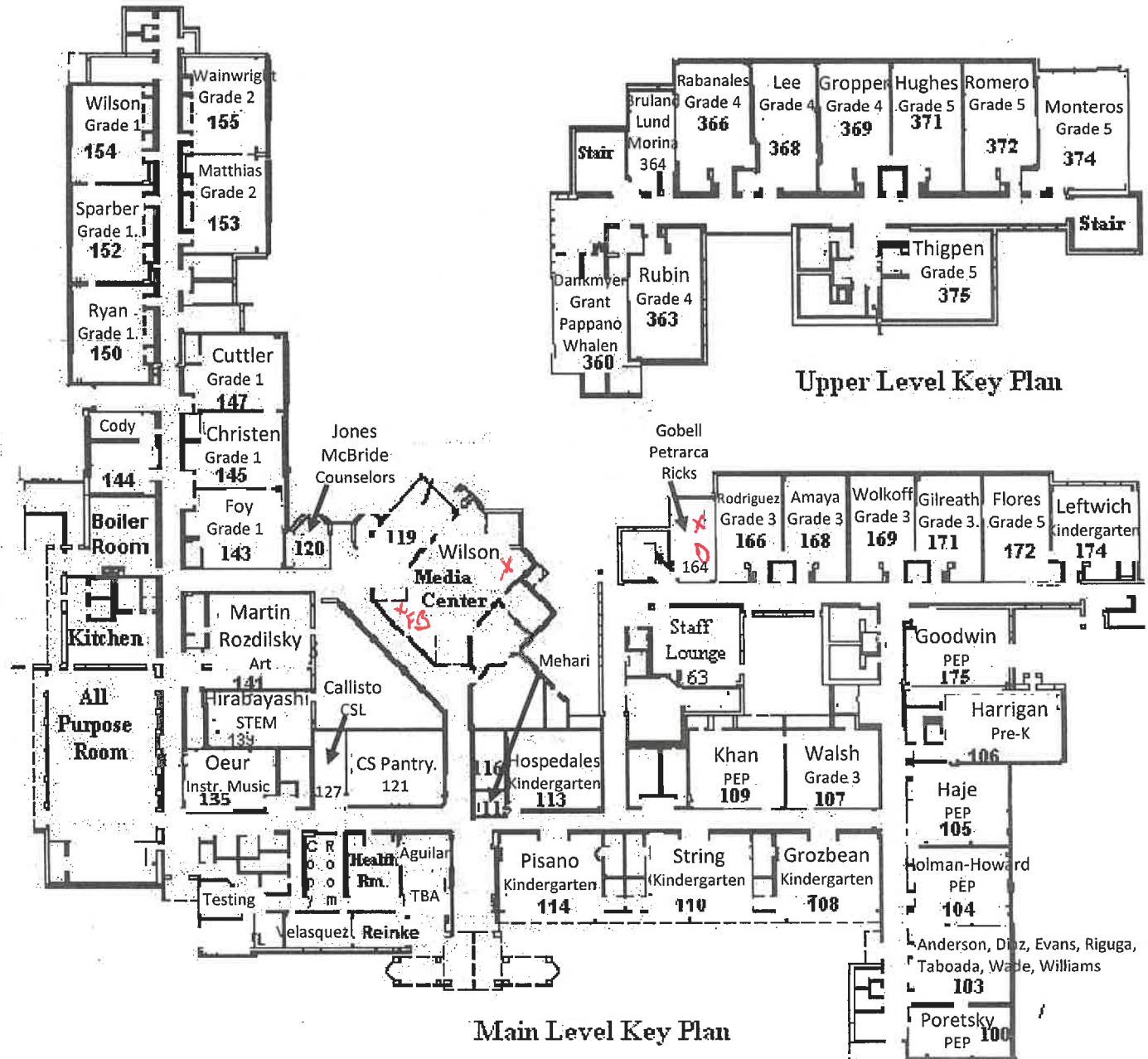
Medon  
164 100A - Storage

# JACKSON ROAD ELEMENTARY SCHOOL

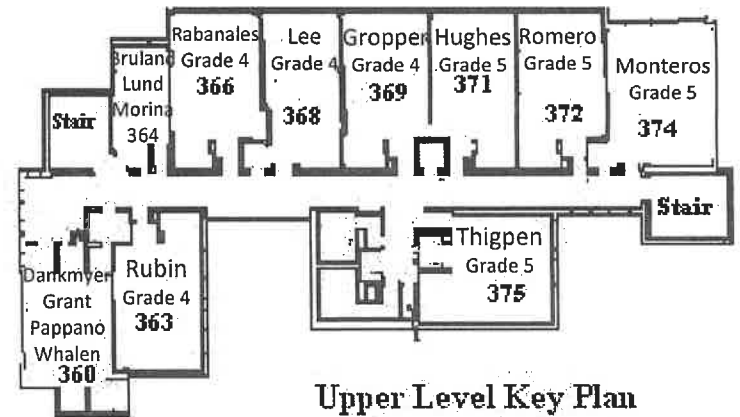
## 2023-2024



Lower Level Key Plan



Main Level Key Plan



## School / Facility Radon Testing Report Form

**Instructions:** Submit one testing report form per-facility per-round of testing. Include the following as attachments:

Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results – list of rooms by test result  $\geq 2.0$ -pCi/L;  $\geq 2.7$ -pCi/L;  $\geq 4.0$ -pCi/L; and  $\geq 8.0$ -pCi/L;
- QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;
- Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.

Attachment 2 – Laboratory Report(s)

Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

School Year: **23-24**

Facility:	Jackson Road Elementary School
Address:	900 Jackson Road
	Silver Spring, MD 20904

Reason for Testing:	<input checked="" type="checkbox"/> Scheduled Re-Testing (2 or 5-year schedule) <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> System(s) Performance Testing (Post-Mitigation) <input type="checkbox"/> New Construction/Facility
Facility Current Radon Status:	<input checked="" type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested
Round of Testing:	<input checked="" type="checkbox"/> Initial Testing -or- <input type="checkbox"/> Follow-up Testing
Testing Status:	<input type="checkbox"/> No Further Testing Needed -or- <input checked="" type="checkbox"/> Follow-Up Testing Required

**Conclusion** (When Testing Status is - No Further Testing Needed)

Mitigation -	Facility Radon Status:
<input type="checkbox"/> Not Required or Considered <input type="checkbox"/> Required ( $>8.0$ -pCi/L) <input type="checkbox"/> Required ( $\geq 4.0$ -pCi/L) <input type="checkbox"/> Consider ( $\geq 2.0$ & $<4.0$ -pCi/L)	<input type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)

## School / Facility Radon Testing Report Form

### Detector and Deployment

Detector/Device Type:	<input checked="" type="checkbox"/> Passive	<input checked="" type="checkbox"/> Charcoal Absorption (CAD)	<input type="checkbox"/> Alpha Track (ATD)	<input type="checkbox"/> Other
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Electret ion Chamber (EIC)	<input type="checkbox"/> Electronic Integration (EID)	
	Other—Specify here:			
Detector/Device Name:	Air Chek – Radon Test Kits			
Manufacturer:	Radon Lab			
Person(s) Deploying or Retrieving Test Devices and certification number			Organization/Company	
Brittany Maas			KCI Technologies, Inc.	
If noncertified individuals, the qualified measurement professional providing oversight -				
Tyler McCleaf, CSP – Cert. #111004-RMP			KCI Technologies, Inc.	

### Testing

<input checked="" type="checkbox"/> Short-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	01/30/2024
<input type="checkbox"/> Long-Term				02/02/2024
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If “Yes” please explain/detail in the space below:				
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If “No” please explain/detail in the space below:				

Testing (continued)

	Detectors Deployed		
	Ground-Contact	Upper-Level(s)	Total
Test Locations <sup>1</sup>	61	7	68
Duplicates <sup>2</sup>	6	1	7
Field Blanks <sup>3</sup>	3	0	3
Grand Total			78

1 – include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space  $\leq$  2,000-square feet; large spaces  $\geq$  2,000-square feet - 1 detector per 2,000-square feet or part thereof); and upper floors - 10% of all occupied or intended to be occupied rooms per floor (these are in addition to ground contact locations)

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

A Quality Assurance plan that is consistent with ANSI/AARST MS-QA (Radon Measurement Systems Quality Assurance) was submitted under separate cover, and is available to review at the MCPS Radon Testing and Mitigation Program website. The following number of QA/QC samples are associated this facility.

Spike Samples <sup>1</sup>	6	Trip Blank(s) <sup>2</sup>	1	Office Blank(s) <sup>3,4</sup>	1
----------------------------	---	----------------------------	---	--------------------------------	---

1 - 3% of EIC detectors; and 3% from each LOT of CAD and ATD detectors; a maximum of 6-spiked measurements per month for both EIC detectors and each LOT of CAD and ATD detectors.

2 – One per shipping container from start of detector deployment

3 – One per facility tested as devices are removed/allocated from the storage location for deployment;

4 - One additional blank, analyzed prior to deployment, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm$ 25% of the chamber's reference value.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quality Control measurements comply with QA/QC requirements in the QA plan previously submitted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## Quality Assurance / Quality Control (QA/QC) (continued)

If “No” to either, please describe any QC measurements that were missing or outside of control tolerances established in the QAP here:

## Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup>

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	61	7	68
Number of locations $\geq 8.0$ -pCi/L:	0	0	0
Number of locations $\geq 4.0$ and $\leq 8$ -pCi/L:	0	0	0
Number of locations $\geq 2.7$ and $\leq 4$ -pCi/L:	4	0	4
Number of locations $\geq 2.0$ and $\leq 4$ -pCi/L:	3	0	3
Number of missing required test locations <sup>3</sup> :	0	0	0
Percentage of missing test locations for the facility <sup>4,5</sup> :	0	0	0

1 – for locations with multiple test results, report consistent with Section 7.2(When Two Test Results Disagree) and 8.1.2 (Averaging) of ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings;

2 - the allowance is to be calculated individually for Ground-Contact and Upper-Level(s) Test Locations;

3 – includes missed or inaccessible locations upon deployment or retrieval, damaged (not able to analyze) and missing detectors upon retrieval;

4 – if all valid measurements are  $< 4.0$ -pCi/L and the total number of test locations are  $\geq 18$ , there is an allowance of  $\leq 33\%$ . If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;

5 – if any valid measurements are  $\geq 4.0$ -pCi/L and the total number of test locations are  $\geq 20$ , there is an allowance of  $\leq 25\%$  of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023.



## School / Facility Radon Testing Report Form

### Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup> (continued)

Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b><i>If Yes to both above – then Testing Status – ‘No Further Testing Needed’ mark ‘NA’ below and complete Conclusions section</i></b>	
<b>If No to either above, were all results obtained under 4.0-pCi/L and were there sufficient valid measurements obtained?<sup>1,2</sup></b> <b><i>If Yes – then Testing Status - ‘No Further Testing Needed’ complete Conclusion section</i></b> <b><i>If No, then Testing Status - ‘Follow-up Testing Required’ continue below</i></b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

1 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of ≤33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance;  
 2 – if any valid measurements are ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the number the allowance.

- **If ‘No Further Testing Needed’** complete conclusions section on first page.
- **If ‘Follow-up Testing Required’** – complete Follow-up Testing described below and the conclusion section on the first page for only the valid measurements/results obtained

### Follow-Up Testing (if required)

Required if –

- 1- Not enough valid results were obtained from a facility (table above);
- 2- Any results ≥ 4.0 – pCi/L; and
- 3- At the discretion of MCPS IAQ Staff

Follow-up Testing:

- 1- If an insufficient number of valid measurements obtained during initial round:
  - return to facility to test locations that require valid measurements
- 2- Follow-up Testing for valid measurements ≥ 4.0-pCi/L

Initial Result(s)	Procedure	Follow-up Result	Conclusion
≥ 4.0-pCi/L	1- Short-term follow-up test 2- Average the results of the two tests	≥4.0	Mitigation Required
		<4.0 but >2.0	Consider Mitigation
		<2.0	Not Required or Considered

- **Complete second School/Facility Radon Testing Report Form for only Follow-up Testing locations.**

# **Attachment 1:**

## **Summary Data Tables**

Table 1- Radon Testing Results		
Jackson Road Elementary School		
Test Period: 01/30/2024 - 02/02/2024		
Kit Number	Room / Area	Result
11464755	100	2.1
11464749	104	0.6
11464763	105	0.7
11464764	105	< 0.3
11464768	105	< 0.3
11464756	106	0.8
11464740	107	< 0.3
11464748	108	< 0.3
11464752	108	< 0.3
11464734	109	< 0.3
11464733	110	< 0.3
11464741	113	< 0.3
11464742	114	< 0.3
11464751	115	< 0.3
11464739	116	< 0.3
11464747	116	< 0.3
11464743	120	< 0.3
11464705	121	0.7
11464709	121	0.6
11464702	124	< 0.3
11464710	126	< 0.3
11464712	127	< 0.3
11464713	135	< 0.3
11464727	139	< 0.3
11464719	141	< 0.3
11464720	143	< 0.3
11464722	144	< 0.3
11464728	145	< 0.3
11464730	147	< 0.3
11464736	147	< 0.3
11464706	150	< 0.3
11464735	150	< 0.3
11464785	163	0.7
11464757	164	3.1
11464750	166	2.1
11464770	168	1.5
11464784	168	1.8
11464783	169	1.3
11464778	171	2.0
11464769	172	1.8
11464776	174	1.7
11464777	175	1.9
11464707	180	< 0.3

Table 1- Radon Testing Results		
Jackson Road Elementary School		
Test Period: 01/30/2024 - 02/02/2024		
Kit Number	Room / Area	Result
11464708	181	< 0.3
11464725	202	< 0.3
11464731	204	< 0.3
11464717	206	0.5
11464726	207	0.7
11464732	209	< 0.3
11464737	209	< 0.3
11464718	211	< 0.3
11464775	369	1.0
11464761	100A	2.9
11464762	103A	1.1
11464701	103B	0.8
11464759	103C	1.4
11464760	103D	1.4
11464767	104A	0.6
11464746	118A	1.2
11464704	124 OFFICE	< 0.3
11464729	144 OFFICE	< 0.3
11464738	209A	0.6
11464724	209B	< 0.3
11464772	APR	< 0.3
11464774	APR	< 0.3
11464711	GYM	0.7
11464714	GYM	0.5
11464721	GYM OFFICE	< 0.3
11464771	KITCHEN OFFICE	< 0.3
11464715	MAIN OFFICE	< 0.3
11464716	MAIN OFFICE - OFFICE 1	0.5
11464723	MAIN OFFICE OFFICE 2	< 0.3
11464744	MEDIA CENTER	1.0
11464745	MEDIA CENTER	1.7
11464753	MEDIA CENTER OFFICE 2	2.9
11464754	MEDIA CENTER OFFICE 2	2.8
11464703	PHONE ROOM	< 0.3
11464779	STAGE	< 0.3

[illegible]

Table 3 - QC Radon Testing Results			
Jackson Road Elementary School			
Test Period: 01/30/2024 - 02/02/2024			
Kit Number	QC Type	Room / Area	Result
11464763	D	105	0.7
11464764	FB	105	<0.3
11464748	D	108	<0.3
11464739	FB	116	<0.3
11464705	D	121	0.7
11464730	D	147	<0.3
11464735	FB	150	<0.3
11464770	D	168	1.5
11464737	D	209	<0.3
11464754	D	Media center office 2	2.8

[illegible]

# **Attachment 2:**

## **Laboratory Reports**



February 6, 2024

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

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11464702	124	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06

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

Radon test result report for:  
**JACKSON ROAD ES**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11464755	100	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	2.1 ± 0.4	2024-02-06
11464761	100A	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	2.9 ± 0.4	2024-02-06
11464762	103A	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.1 ± 0.4	2024-02-06
11464701	103B	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	0.8 ± 0.4	2024-02-06
11464759	103C	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.4 ± 0.4	2024-02-06
11464760	103D	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.4 ± 0.4	2024-02-06
11464749	104	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	0.6 ± 0.3	2024-02-06
11464767	104A	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	0.6 ± 0.3	2024-02-06
11464768	105	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464764	105	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464763	105	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	0.7 ± 0.4	2024-02-06
11464756	106	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	0.8 ± 0.4	2024-02-06
11464740	107	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464748	108	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464752	108	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464734	109	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464733	110	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464741	113	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464742	114	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464751	115	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464747	116	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464739	116	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464746	118A	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	1.2 ± 0.4	2024-02-06
11464743	120	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464709	121	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.6 ± 0.3	2024-02-06
11464705	121	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.7 ± 0.4	2024-02-06
11464704	124 OFFICE	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464710	126	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464712	127	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464713	135	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464727	139	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464719	141	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464720	143	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464722	144	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464729	144 OFFICE	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464728	145	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464736	147	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06

Radon test result report for:  
**JACKSON ROAD ES**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11464730	147	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464706	150	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464735	150	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464785	163	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	0.7 ± 0.3	2024-02-06
11464757	164	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	3.1 ± 0.4	2024-02-06
11464750	166	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	2.1 ± 0.4	2024-02-06
11464784	168	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.8 ± 0.4	2024-02-06
11464770	168	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.5 ± 0.4	2024-02-06
11464783	169	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.3 ± 0.4	2024-02-06
11464778	171	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	2.0 ± 0.4	2024-02-06
11464769	172	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.8 ± 0.4	2024-02-06
11464776	174	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.7 ± 0.4	2024-02-06
11464777	175	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.9 ± 0.4	2024-02-06
11464707	180	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464708	181	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464725	202	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464731	204	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464717	206	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.5 ± 0.3	2024-02-06
11464726	207	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.7 ± 0.3	2024-02-06
11464737	209	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464732	209	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464738	209A	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.6 ± 0.3	2024-02-06
11464724	209B	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464718	211	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464775	369	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	1.0 ± 0.4	2024-02-06
11464774	APR	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464772	APR	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464711	GYM	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.7 ± 0.3	2024-02-06
11464714	GYM	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	0.5 ± 0.3	2024-02-06
11464721	GYM OFFICE	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464771	KITCHEN OFFICE	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464715	MAIN OFFICE	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464716	MAIN OFFICE - OFFICE 1	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	0.5 ± 0.3	2024-02-06
11464723	MAIN OFFICE OFFICE 2	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464744	MEDIA CENTER	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	1.0 ± 0.4	2024-02-06
11464745	MEDIA CENTER	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	1.7 ± 0.4	2024-02-06
11464754	MEDIA CENTER OFFICE 2	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	2.8 ± 0.4	2024-02-06

February 6, 2024

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

Radon test result report for:  
**JACKSON ROAD ES  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11464753	MEDIA CENTER OFFICE 2	2024-01-30 @ 9:00 am	2024-02-02 @ 9:00 am	2.9 ± 0.4	2024-02-06
11464703	PHONE ROOM	2024-01-30 @ 8:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06
11464779	STAGE	2024-01-30 @ 10:00 am	2024-02-02 @ 9:00 am	< 0.3	2024-02-06

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

February 7, 2024

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

Radon test result report for:  
**OFFICE BLANK**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633583	OB	2024-01-30 @ 11:00 am	2024-02-02 @ 11:00 am	< 0.3	2024-02-06

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

February 7, 2024

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

Radon test result report for:  
**TRAVEL BLANK**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633584	TB	2024-01-30 @ 11:00 am	2024-02-02 @ 11:00 am	< 0.3	2024-02-06

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

January 29, 2024

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

Radon test result report for:

**STORAGE  
KCI**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11635097	Storage	2024-01-07 @ 9:00 am	2024-01-11 @ 9:00 am	< 0.3	2024-01-15

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213327

NOMINAL Conditions: Radon Conc 49.5 pCi/L Rel. Hum 24.7 % Temp. 69.8 F

Date Start: 1/19/24 Date Stop: 1/22/24 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0831 Time Stop: 0831 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (6) CHAR BAGS - Device No.'s: \_\_\_\_\_

11284003, 11284005, 11284006

11284007, 11284008, 11284013

F3 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



January 29, 2024

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

Radon test result report for:  
**BOWSER MORNER  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284003	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	47.0 ± 3.8	2024-01-29
11284005	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	43.4 ± 3.5	2024-01-29
11284006	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	42.1 ± 3.4	2024-01-29
11284007	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	46.4 ± 3.7	2024-01-29
11284008	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	46.2 ± 3.7	2024-01-29
11284013	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	45.6 ± 3.6	2024-01-29



---

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 – Testing January 30<sup>th</sup> – February 2<sup>nd</sup> 2024

Name of Schools:

- |                    |                          |
|--------------------|--------------------------|
| 1. Damascus HS     | 4. Laytonsville ES       |
| 2. Fairland ES     | 5. William Tyler Page ES |
| 3. Jackson Road ES | 6. Cloverly ES           |

---

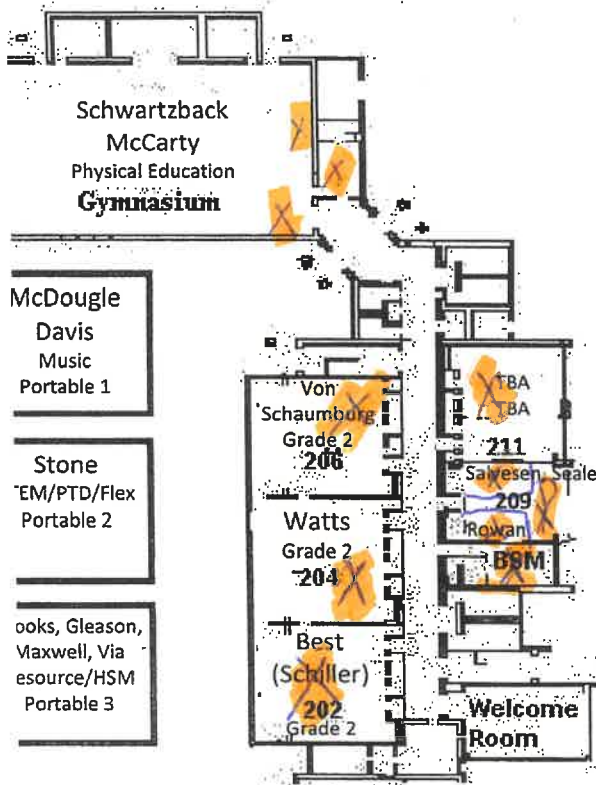
	Date	Initials
Radon Test Kits Deployed	01/30/2024	JM
Radon Test Kits Collected	02/02/2024	DM
Radon Test Kits Shipped to Lab*	02/02/2024	JM
Radon Test Kits Received by Lab*	02/06/2024	DM

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

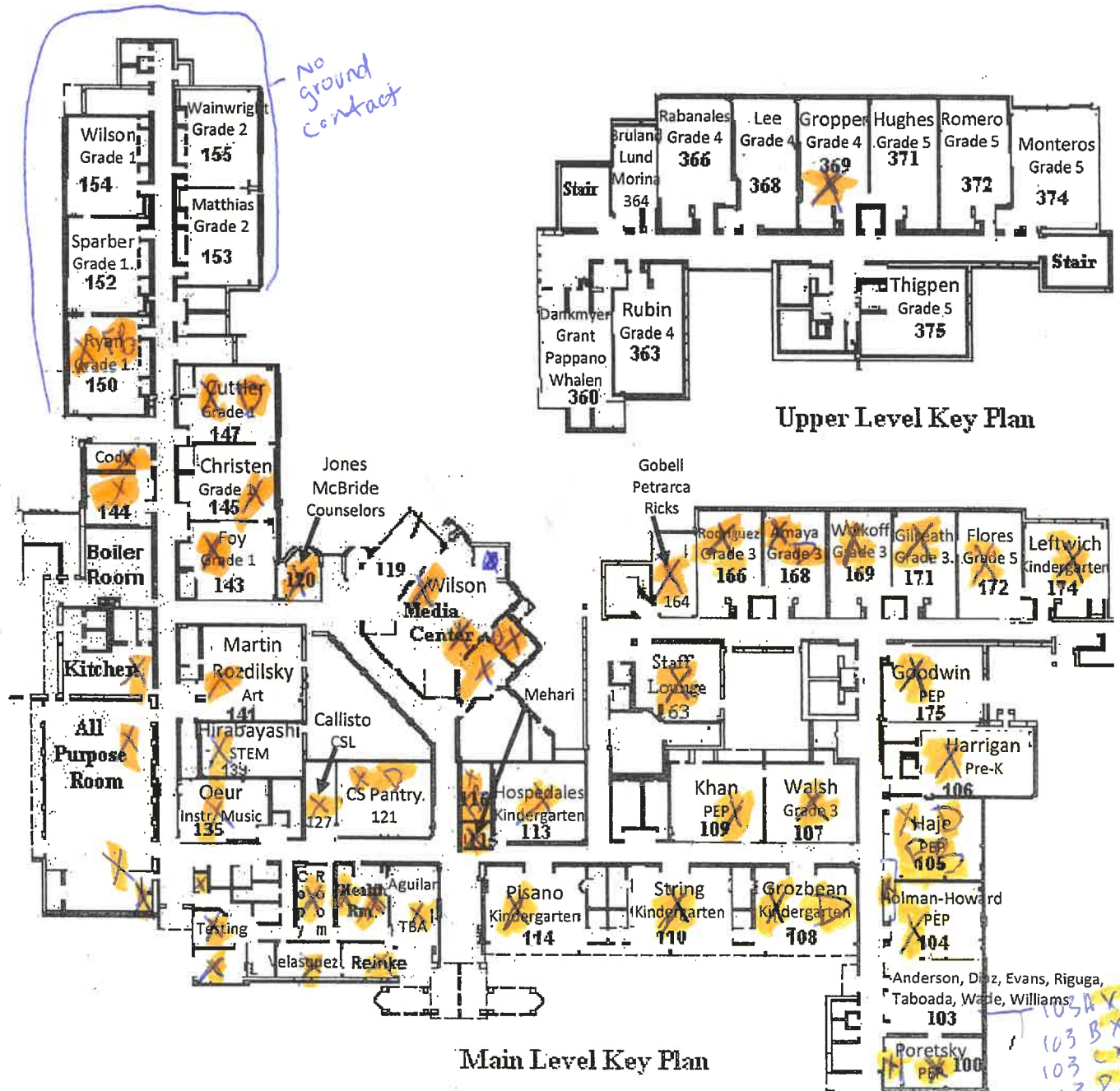
**Attachment 3:**  
**Sampling Location Map**

# JACKSON ROAD ELEMENTARY SCHOOL

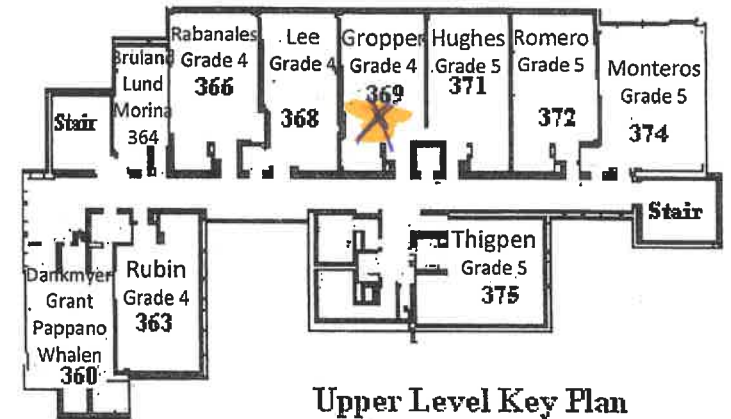
2023-2024



Lower Level Key Plan



Main Level Key Plan



Upper Level Key Plan



### MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Jackson Road Elementary School
Date of Test Report	4/29/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	74
# Rooms $\geq 4.0$ pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.9 pCi/L

Project Status:

Initial testing completed; no further action needed



April 29, 2022

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

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

Location: Jackson Road Elementary School  
900 Jackson Rd.  
Silver Spring, MD 20904

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 Jackson Road Elementary School, located at 900 Jackson Rd. Silver Spring, MD 20904 (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 March 7, 2022 and deployed eighty-six (86) 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 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 mid 20s and high temperatures ranged from the high 70s to the low 50s Fahrenheit. Maximum sustained winds ranged from 0-32 miles per hour. Average humidity was around 65% with 1.09 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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
<b>≥4.0 pCi/L</b>	None	N/A
<b>&lt;4.0 pCi/L</b>	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		
Jackson Road ES		
Test Period: 03/07/2022 - 03/10/2022		
Kit Number	Room / Area	Result
11131804	100	1.1
11131808	104	< 0.3
11131815	104	< 0.3
11131822	105	0.6
11131820	106	0.5
11131805	107	< 0.3
11131806	108	< 0.3
11131803	109	< 0.3
11131811	110	< 0.3
11131813	113	< 0.3
11131814	114	< 0.3
11131839	115	0.5
11131840	115	0.6
11131841	116	< 0.3
11131827	120	0.7
11131896	121	< 0.3
11131897	127	< 0.3
11131879	134	0.6
11131858	135	0.6
11131872	139	< 0.3
11131871	141	< 0.3
11131828	143	0.7
11131859	144	< 0.3
11131818	145	< 0.3
11131825	145	< 0.3
11131826	145	< 0.3
11131833	147	< 0.3
11131861	150	< 0.3
11131862	152	< 0.3
11131863	153	< 0.3
11131817	154	< 0.3
11131834	155	< 0.3
11131854	155	< 0.3
11131844	164	1.9
11131845	166	0.5
11131810	168	0.9
11131807	169	0.6
11131809	171	< 0.3
11131831	172	0.7
11131819	174	< 0.3
11131832	174	< 0.3
11131838	174	< 0.3

Table 1- Radon Testing Results		
Jackson Road ES		
Test Period: 03/07/2022 - 03/10/2022		
Kit Number	Room / Area	Result
11131837	175	1.4
11131885	180	< 0.3
11131886	181	< 0.3
11131853	202	< 0.3
11131855	204	< 0.3
11131852	206	< 0.3
11131848	209	< 0.3
11131851	211	< 0.3
11131843	363	< 0.3
11131830	100A	1.6
11131816	103A	< 0.3
11131829	103B	0.9
11131823	103C	< 0.3
11131824	103D	0.7
11131821	105A	< 0.3
11131836	11P	1.1
11131857	134 PHONE	< 0.3
11131860	144 OFFICE	< 0.3
11131802	209A	1.1
11131869	209B	0.8
11131850	214A	< 0.3
11131864	214A	< 0.3
11131870	214A	< 0.3
11131865	APR	< 0.3
11131878	APR	< 0.3
11131801	BSM	0.8
11131899	COPY ROOM	< 0.3
11131849	GYM	< 0.3
11131856	GYM	0.6
11131898	HR	< 0.3
11131900	HR OFFICE	0.8
11131877	KITCHEN OFFICE	< 0.3
11131880	MAIN OFFICE	< 0.3
11131842	MC	< 0.3
11131846	MC	0.8
11131847	MC OFFICE	2.9
11131835	MC OFFICE 2	1.1
11131893	REINKI	1.0
11131812	STAFF LOUNGE	0.8
11131867	STAGE	< 0.3
11131868	STAGE	< 0.3
11131888	VELASQUEZ	0.8

Table 1- Radon Testing Results		
Jackson Road ES		
Test Period: 03/07/2022 - 03/10/2022		
Kit Number	Room / Area	Result
11131894	VELASQUEZ	< 0.3
11131895	VELASQUEZ	0.8

Table 2- Radon Testing Results			
Jackson Road ES			
Test Period: 03/07/2022 - 03/10/2022			
Kit Number	QC Type	Room / Area	Result
11131808	D	104	< 0.3
11131819	D	174	< 0.3
11131832	FB	174	< 0.3
11131840	D	115	0.6
11131825	D	145	< 0.3
11131826	FB	145	< 0.3
11131854	D	155	< 0.3
11131864	D	214a	< 0.3
11131850	FB	214a	< 0.3
11131867	D	Stage	< 0.3
11131888	D	Velasquez	0.8
11131894	FB	Velasquez	< 0.3
11131662	OB	OFFICE BLANK	< 0.3
11131691	TB	TRAVEL BLANK	< 0.3





## ATTACHMENT C

### Laboratory Analytical Results

Radon test result report for:  
**JACKSON ROAD ES**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131804	100	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	1.1 ± 0.3	2022-03-14
11131830	100A	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	1.6 ± 0.3	2022-03-14
11131816	103A	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131829	103B	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	0.9 ± 0.3	2022-03-14
11131823	103C	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131824	103D	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	0.7 ± 0.3	2022-03-14
11131808	104	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131815	104	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131822	105	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.6 ± 0.3	2022-03-14
11131821	105A	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131820	106	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.5 ± 0.3	2022-03-14
11131805	107	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131806	108	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131803	109	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131811	110	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131813	113	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131814	114	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131839	115	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.5 ± 0.3	2022-03-14
11131840	115	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.6 ± 0.3	2022-03-14
11131841	116	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131836	11P	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	1.1 ± 0.3	2022-03-14
11131827	120	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.7 ± 0.3	2022-03-14
11131896	121	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131897	127	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131879	134	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.6 ± 0.3	2022-03-14
11131857	134 PHONE	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131858	135	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.6 ± 0.3	2022-03-14
11131872	139	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131871	141	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131828	143	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	0.7 ± 0.3	2022-03-14
11131859	144	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131860	144 OFFICE	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131825	145	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131818	145	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131826	145	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131833	147	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131861	150	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14

Radon test result report for:  
**JACKSON ROAD ES**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131862	152	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131863	153	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131817	154	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131854	155	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131834	155	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131844	164	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	1.9 ± 0.4	2022-03-14
11131845	166	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.5 ± 0.3	2022-03-14
11131810	168	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.9 ± 0.3	2022-03-14
11131807	169	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.6 ± 0.3	2022-03-14
11131809	171	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131831	172	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.7 ± 0.3	2022-03-14
11131819	174	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131832	174	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131838	174	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131837	175	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	1.4 ± 0.4	2022-03-14
11131885	180	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131886	181	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131853	202	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131855	204	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131852	206	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131848	209	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131802	209A	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	1.1 ± 0.3	2022-03-14
11131869	209B	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.8 ± 0.3	2022-03-14
11131851	211	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131870	214A	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131864	214A	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131850	214A	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131843	363	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131878	APR	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131865	APR	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131801	BSM	2022-03-07 @ 12:00 pm	2022-03-10 @ 9:00 am	0.8 ± 0.3	2022-03-14
11131899	COPY ROOM	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131856	GYM	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.6 ± 0.3	2022-03-14
11131849	GYM	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131898	HR	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131900	HR OFFICE	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.8 ± 0.3	2022-03-14
11131877	KITCHEN OFFICE	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14

---

March 15, 2022

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

---

Radon test result report for:  
**JACKSON ROAD ES  
MAIN**

---

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131880	MAIN OFFICE	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131846	MC	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	0.8 ± 0.4	2022-03-14
11131842	MC	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	< 0.3	2022-03-14
11131847	MC OFFICE	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	2.9 ± 0.4	2022-03-14
11131835	MC OFFICE 2	2022-03-07 @ 12:00 pm	2022-03-10 @ 8:00 am	1.1 ± 0.3	2022-03-14
11131893	REINKI	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	1.0 ± 0.3	2022-03-14
11131812	STAFF LOUNGE	2022-03-07 @ 11:00 am	2022-03-10 @ 8:00 am	0.8 ± 0.3	2022-03-14
11131868	STAGE	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131867	STAGE	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131894	VELASQUEZ	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	< 0.3	2022-03-14
11131895	VELASQUEZ	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.8 ± 0.3	2022-03-14
11131888	VELASQUEZ	2022-03-07 @ 1:00 pm	2022-03-10 @ 9:00 am	0.8 ± 0.3	2022-03-14

---

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 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  $\mu$ 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



---

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 – March 2022 Schools

Name of Schools:

1. Cresthaven ES
2. Key, Francis Scott MS
3. Nix, Roscoe ES
4. Greencastle ES
5. Jackson Road
6. Page, William Tyler ES
7. West Farm Transportation Depot
8. Westover ES
9. White Oak MS

---

	Date	Initials
Radon Test Kits Deployed	03/07/2022	BMM
Radon Test Kits Collected	03/10/2022	BMM
Radon Test Kits Shipped to Lab*	03/10/2022	BMM
Radon Test Kits Received by Lab*	03/13/2022	BMM

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



## MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

**Executive Summary:**  
**Jackson Road Elementary School**  
900 Jackson Road  
Silver Spring, MD 20904

Date of Test Report:	3/15/2019
Round of Testing:	Initial <b>Follow-up</b> Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested:	1
# of Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	0.4
High Value:	0.4

### Project Status

**Retesting completed:** No further action at this time.





March 15, 2019

Mr. Richard Cox  
Indoor Air Quality Team Leader  
Montgomery County Public Schools  
850 Hungerford Drive  
Rockville, MD 20850

Re: Radon Testing Services

Location: Jackson Road Elementary School  
900 Jackson Road  
Silver Spring, MD 20904

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a "short-term" 3-day radon test for Jackson Road Elementary School, located at 900 Jackson Road, Silver Spring, MD 20904 (subject site).

### **Scope of Services:**

PSI 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. PSI 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 Safety Board (NRSB) Radon Measurement Specialist (certification #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from [www.montgomerycountymd.gov/dep/air/radon](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

PSI visited the site on February 26, 2019 and deployed one (1) activated charcoal (AC) radon test kit. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on March 01, 2019 to retrieve the radon sampling test kit. A floor plan map of the building with the test location is included as Attachment A of this report.

PSI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis located at 929 Mount Zion Road, Lebanon, Pennsylvania (certification # ARL0007).

### **Evaluation of Testing Conditions:**

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages  $\leq 65^{\circ}\text{F}$ .

PSI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.



PSI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. PSI recorded observations of the following conditions in each room at 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.

### **Results:**

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	

Notes:

D -Duplicate Sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 pCi/L. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

The sampling locations, field observations, and analytical results are listed on Table 1 (Attachment B). The laboratory analytical results are also attached (Attachment C).

Laboratory results and exposure data for the spike samples are also included in Attachment C. 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 (703) 698-9300.

Respectfully Submitted,

**INTERTEK - PSI**

A handwritten signature in black ink, appearing to read "Nand Kaushik". The signature is fluid and cursive, with the first name "Nand" and last name "Kaushik" clearly distinguishable.

Nand Kaushik, P.E.

Department Manager, Environmental Services

[Nand.Kaushik@intertek.com](mailto:Nand.Kaushik@intertek.com)

Attachments:

A – Floor Plan with Test Locations

B – Table 1 – Radon Test Summary Spreadsheet

C – Laboratory Analytical Results

## **ATTACHMENT B**

Radon Test Summary Spreadsheet

Radon Testing Results		
Jackson Road Elementary School		
Testing period: 2/26/19 - 3/01/19		
Kit Number	Room / Area	Result (pCi/L)
3923370	204	0.4

**Table Notes:**

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

# **ATTACHMENT C**

Laboratory Analytical Results

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
900 Jackson Road  
White Oak MD 20904

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
3220808	3923370	02/26/2019 12:20 pm 03/01/2019 9:30 am	Floor lower level Room 204	0.4

**Comment:** A copy of this report was e-mailed to Intertek-PSI (VA)

Distributed by: Intertek-PSI (VA)

Date Received: 03/05/2019 Date Logged: 03/05/2019 Date Analyzed: 03/05/2019 Date Reported: 03/06/2019

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is  $\sim \pm 10\%$ . Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.





## MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

**Executive Summary:**  
**Jackson Road Elementary School**  
900 Jackson Road  
Silver Spring, MD 20904

Date of Test Report:	2/13/2019
Round of Testing:	Initial Follow-up Post Remediation 2 Year Testing <b>5 Year Testing</b> HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested:	62
# of Rooms $\geq 4.0$ pCi/L:	0
Low Value:	< 0.4
High Value:	3.0

### Project Status

**Initial testing complete:** Missing or compromised samples need re-test.



February 13, 2019

Mr. Richard Cox  
Indoor Air Quality Team Leader  
Montgomery County Public Schools  
850 Hungerford Drive  
Rockville, MD 20850

Re: Radon Testing Services

Location: Jackson Road Elementary School  
900 Jackson Road  
Silver Spring, MD 20904

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a "short-term" 3-day radon test for Jackson Road Elementary School, located at 900 Jackson Road, Silver Spring, MD 20904 (subject site).

**Scope of Services:**

PSI 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. PSI 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 Safety Board (NRSB) Radon Measurement Specialist (certification #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from [www.montgomerycountymd.gov/dep/air/radon](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

PSI visited the site on November 12, 2018 and deployed eighty-three (83) activated charcoal (AC) radon test kits. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on November 15, 2018 to retrieve the radon sampling test kits. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, PSI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, PSI submitted ten (10) test kits to Bowser-Morner Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner Inc. prior to being returned to the laboratory for analysis.

PSI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis located at 929 Mount Zion Road, Lebanon, Pennsylvania (certification # ARL0007) and 2 Saber Way, Haverhill, Massachusetts (certification # ARL0017).



### **Evaluation of Testing Conditions:**

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages  $\leq 65^{\circ}\text{F}$ .

PSI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.

PSI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. PSI recorded observations of the following conditions in each room at 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.

### **Results:**

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
$\geq 4.0$ pCi/L	None	NA
$\leq 4.0$ pCi/L	See Attachment B	

Notes:

D -Duplicate Sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 pCi/L. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

The sampling locations, field observations, and analytical results are listed on Table 1 (Attachment B). The laboratory analytical results are also attached (Attachment C).

Laboratory results and exposure data for the spike samples are also included in Attachment C. 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 (703) 698-9300.



Respectfully Submitted,

**INTERTEK-PSI**

Nand Kaushik, P.E.  
Department Manager, Environmental Services  
[Nand.Kaushik@intertek.com](mailto:Nand.Kaushik@intertek.com)

Attachments:           A – Floor Plan with Test Locations  
                              B – Table 1 – Radon Test Summary Spreadsheet  
                              C – Laboratory Analytical Results

## **ATTACHMENT B**

Radon Test Summary Spreadsheet

Radon Testing Results		
Jackson Road Elementary School		
Testing period: 11/12/18 - 11/15/18		
Kit Number	Room / Area	Result (pCi/L)
3919820	100 Office (100)	2.2
3919747	100A	3.0
3919875	103A	1.2
3919874	103B	1.4
3919876	103C	1.3
3919878	103D	1.7
3919748	104	1.0
3919749	104A/105A	1.0
3919782	105	0.8
3919834	106	0.8
3919819	107	0.5
3919818	108	< 0.4
3919817	109	0.6
3919790	110	< 0.4
3919783	113	0.9
3919784	114	0.4
3919766	115	0.7
3919768	116	0.5
3919807	118A	1.1
3919787	119	0.5
3919770	120	< 0.4
3919764	121	0.9
3919801	122	0.8
3919802	122	0.8
3919803	122	0.8
3919765	124	0.9
3919900	126	0.7
3919899	127	0.4
3919870	135	0.7
3919877	139	0.5
3919880	141	0.6
3919833	143	0.7
3919894	144	< 0.4
3919893	145	0.9
3919898	147	1.2
3919895	150	0.4
3919896	152	0.4
3919763	153	< 0.4
3919781	154	0.4
3919804	155	< 0.4
3919742	163	1.2
3919836	164	1.8
3919744	166	1.4

Radon Testing Results		
Jackson Road Elementary School		
Testing period: 11/12/18 - 11/15/18		
Kit Number	Room / Area	Result (pCi/L)
3919814	168	0.9
3919816	169	1.4
3919745	171	1.0
3919746	171	1.1
3919750	172	1.1
3919813	174	1.2
3919835	175	2.1
3919879	180	0.7
3919811	181	0.9
3919837	202	< 0.4
3919806	204 (MISSING)	-
3919805	206	0.5
3919840	207	0.9
3919838	209	0.4
3919872	209A	< 0.4
3919871	209B	< 0.4
3919873	211	< 0.4
3919743	214A	0.9
3919843	368	1.0
3881229	APR	< 0.4
3881158	APR	< 0.4
3881239	APR - Stage	0.5
3881219	Gym	1.2
3881189	Gym	1.2
3919788	IMC	1.2
3919786	IMC	1.0
3919785	IMC - Office	2.0
3919809	Kitchen	< 0.4

Radon Testing Results		
Jackson Road Elementary School		
Testing period: 11/12/18 - 11/15/18		
Kit Number	QC Type	Result (pCi/L)
3919789	109 (D)	< 0.4
3919769	118A (D)	1.4
3919897	152 (D)	0.4
3919815	169 (D)	0.7
3919812	181 (D)	1.3
3919839	202 (D)	0.4
3919741	214A (D)	0.7
3919808	Kitchen (D)	0.4
3918898	Field Blank	< 0.4
3918899	Field Blank	< 0.4
3917872	Office Blank	< 0.4
3918897	Transit Blank	< 0.4



**Table Notes:**

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

# **ATTACHMENT C**

## Laboratory Analytical Results

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196097	3919809	11/12/2018	3:27 pm	11/15/2018	12:24 pm	Floor Main Room Kitchen	< 0.4
3196098	3919808	11/12/2018	3:27 pm	11/15/2018	12:24 pm	Floor Main Room Kitchen Duplicate	0.4
3196099	3919879	11/12/2018	3:36 pm	11/15/2018	12:25 pm	Floor Main Room 180	0.7
3196100	3919870	11/12/2018	3:38 pm	11/15/2018	12:26 pm	Floor Main Room 135	0.7
3196101	3919877	11/12/2018	3:41 pm	11/15/2018	12:27 pm	Floor Main Room 139	0.5
3196102	3919880	11/12/2018	3:43 pm	11/15/2018	12:28 pm	Floor Main Room 141	0.6
3196103	3919833	11/12/2018	3:46 pm	11/15/2018	12:29 pm	Floor Main Room 143	0.7
3196104	3919893	11/12/2018	3:47 pm	11/15/2018	12:30 pm	Floor Main Room 145	0.9
3196105	3919894	11/12/2018	3:50 pm	11/15/2018	12:31 pm	Floor Main Room 144	< 0.4
3196106	3919895	11/12/2018	3:53 pm	11/15/2018	12:32 pm	Floor Main Room 150	0.4
3196107	3919896	11/12/2018	3:56 pm	11/15/2018	12:34 pm	Floor Main Room 152	0.4

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

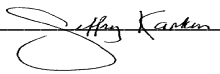
Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196108	3919897	11/12/2018	3:56 pm	11/15/2018	12:34 pm	Floor Main Room 152 Duplicate	0.4
3196109	3919898	11/12/2018	4:00 pm	11/15/2018	12:35 pm	Floor Main Room 147	1.2
3196110	3919836	11/12/2018	5:50 pm	11/15/2018	1:11 pm	Floor Main Room 164	1.8
3196111	3919899	11/12/2018	6:30 pm	11/15/2018	12:36 pm	Floor Main Room 127	0.4
3196112	3919900	11/12/2018	4:06 pm	11/15/2018	12:37 pm	Floor Main Room 126	0.7
3196113	3919764	11/12/2018	4:09 pm	11/15/2018	12:38 pm	Floor Main Room 121	0.9
3196114	3919765	11/12/2018	4:15 pm	11/15/2018	12:39 pm	Floor Main Room 124	0.9
3196115	3919766	11/12/2018	4:17 pm	11/15/2018	12:40 pm	Floor Main Room 115	0.7
3196116	3919768	11/12/2018	6:35 pm	11/15/2018	12:41 pm	Floor Main Room 116	0.5
3196117	3919807	11/12/2018	4:19 pm	11/15/2018	12:43 pm	Floor Main Room 118A	1.1
3196118	3919769	11/12/2018	4:19 pm	11/15/2018	12:43 pm	Floor Main Room 118A Duplicate	1.4

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196119	3919785	11/12/2018	4:21 pm	11/15/2018	12:44 pm	Floor Main Room 118	2.0
3196120	3919788	11/12/2018	4:22 pm	11/15/2018	12:45 pm	Floor Main Room 118	1.2
3196121	3919786	11/12/2018	4:23 pm	11/15/2018	12:46 pm	Floor Main Room 118	1.0
3196122	3919787	11/12/2018	4:27 pm	11/15/2018	12:47 pm	Floor Main Room 119	0.5
3196123	3919770	11/12/2018	4:32 pm	11/15/2018	12:48 pm	Floor Main Room 120	< 0.4
3196124	3919784	11/12/2018	4:34 pm	11/15/2018	12:49 pm	Floor Main Room 114	0.4
3196125	3919783	11/12/2018	4:37 pm	11/15/2018	12:50 pm	Floor Main Room 113	0.9
3196126	3919790	11/12/2018	4:40 pm	11/15/2018	12:51 pm	Floor Main Room 110	< 0.4
3196127	3919817	11/12/2018	4:45 pm	11/15/2018	12:53 pm	Floor Main Room 109	0.6
3196128	3919789	11/12/2018	4:45 pm	11/15/2018	12:53 pm	Floor Main Room 109 Duplicate	< 0.4
3196129	3919818	11/12/2018	4:50 pm	11/15/2018	12:54 pm	Floor Main Room 108	< 0.4

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is  $\pm 10\%$ . Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196130	3919819	11/12/2018	4:51 pm	11/15/2018	12:55 pm	Floor Main Room 107	0.5
3196131	3919820	11/12/2018	4:56 pm	11/15/2018	12:56 pm	Floor Main Room 100	2.2
3196132	3919875	11/12/2018	4:57 pm	11/15/2018	12:57 pm	Floor Main Room 103A	1.2
3196133	3919874	11/12/2018	4:58 pm	11/15/2018	12:58 pm	Floor Main Room 103B	1.4
3196134	3919876	11/12/2018	5:10 pm	11/15/2018	12:59 pm	Floor Main Room 103C	1.3
3196135	3919878	11/12/2018	5:15 pm	11/15/2018	1:00 pm	Floor Main Room 103D	1.7
3196136	3919747	11/12/2018	5:18 pm	11/15/2018	1:01 pm	Floor Main Room 100A	3.0
3196137	3919748	11/12/2018	5:21 pm	11/15/2018	1:02 pm	Floor Main Room 104	1.0
3196138	3919749	11/12/2018	5:23 pm	11/15/2018	1:03 pm	Floor Main Room 104A - 105A	1.0
3196139	3919782	11/12/2018	5:26 pm	11/15/2018	1:04 pm	Floor Main Room 105	0.8
3196140	3919834	11/12/2018	5:35 pm	11/15/2018	1:05 pm	Floor Main Room 106	0.8

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is  $\pm 10\%$ . Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196141	3919835	11/12/2018	5:37 pm	11/15/2018	1:06 pm	Floor Main Room 175	2.1
3196142	3919750	11/12/2018	5:39 pm	11/15/2018	1:07 pm	Floor Main Room 172	1.1
3196143	3919745	11/12/2018	5:41 pm	11/15/2018	1:09 pm	Floor Main Room 171	1.0
3196144	3919746	11/12/2018	5:41 pm	11/15/2018	1:09 pm	Floor Main Room 171	1.1
3196145	3919744	11/12/2018	5:45 pm	11/15/2018	1:10 pm	Floor Main Room 166	1.4
3196146	3919742	11/12/2018	5:51 pm	11/15/2018	1:12 pm	Floor Main Room 163	1.2
3196147	3919743	11/12/2018	5:59 pm	11/15/2018	1:14 pm	Floor Lower Room 214A	0.9
3196148	3919741	11/12/2018	5:59 pm	11/15/2018	1:14 pm	Floor Lower Room 214A Duplicate	0.7
3196149	3919840	11/12/2018	6:12 pm	11/15/2018	1:17 pm	Floor Lower Room 207	0.9
3196150	3919837	11/12/2018	6:15 pm	11/15/2018	1:17 pm	Floor Lower Room 202	< 0.4
3196151	3919839	11/12/2018	6:15 pm	11/15/2018	1:17 pm	Floor Lower Room 202 Duplicate	0.4

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

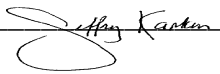
Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196152	3919838	11/12/2018	6:21 pm	11/15/2018	1:20 pm	Floor Lower Room 209	0.4
3196153	3919872	11/12/2018	6:26 pm	11/15/2018	1:21 pm	Floor Lower Room 209A	< 0.4
3196154	3919871	11/12/2018	6:21 pm	11/15/2018	1:22 pm	Floor Lower Room 209B	< 0.4
3196155	3919873	11/12/2018	6:25 pm	11/15/2018	1:23 pm	Floor Lower Room 211	< 0.4
3196156	3919805	11/12/2018	6:30 pm	11/15/2018	1:24 pm	Floor Lower Room 206	0.5
3196157	3919804	11/12/2018	6:33 pm	11/15/2018	1:26 pm	Floor Lower Room 155	< 0.4
3196158	3919781	11/12/2018	6:35 pm	11/15/2018	1:27 pm	Floor Main Room 154	0.4
3196159	3919763	11/12/2018	6:37 pm	11/15/2018	1:28 pm	Floor Main Room 153	< 0.4
3196160	3919801	11/12/2018	6:40 pm	11/15/2018	1:29 pm	Floor Main Room 122	0.8
3196161	3919802	11/12/2018	6:42 pm	11/15/2018	1:30 pm	Floor Main Room 122	0.8
3196162	3919803	11/12/2018	6:43 pm	11/15/2018	1:31 pm	Floor Main Room 122	0.8

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is  $\pm 10\%$ . Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.



NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey Jackson Road ES  
Not Indicated  
Silver Spring MD 20904

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3196163	3919811	11/12/2018	6:47 pm	11/15/2018	1:33 pm	Floor Main Room 181	0.9
3196164	3919812	11/12/2018	6:47 pm	11/15/2018	1:33 pm	Floor Main Room 181 Duplicate	1.3
3196165	3919813	11/12/2018	6:56 pm	11/15/2018	1:34 pm	Floor Main Room 174	1.2
3196166	3919814	11/12/2018	7:00 pm	11/15/2018	1:36 pm	Floor Main Room 169	0.9
3196167	3919815	11/12/2018	7:00 pm	11/15/2018	1:36 pm	Floor Main Room 169 Duplicate	0.7
3196168	3919816	11/12/2018	7:05 pm	11/15/2018	1:37 pm	Floor Main Room 169	1.4
3196169	3919843	11/12/2018	7:10 pm	11/15/2018	1:38 pm	Floor Main Room 368	1.0
3196170	3917872	11/12/2018	6:00 am	11/15/2018	3:00 pm	Office Blank	< 0.4
3196171	3918897	11/12/2018	6:00 am	11/15/2018	3:00 pm	Transit Blank	< 0.4
3196172	3918898	11/12/2018	7:00 am	11/15/2018	1:38 pm	Field Blank	< 0.4
3196173	3918899	11/12/2018	7:00 am	11/15/2018	1:38 pm	Field Blank	< 0.4

**Comment:** AMENDED REPORT for 3919836 on 1-23-19 to add dates/times and area tested information.

Test Performed By: Not Indicated

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: 11/17/2018 Date Analyzed: 11/17/2018 Date Reported: 11/28/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

EPA Method #402-R-92-004  
Liquid Scintillation  
NRPP Device Code 8088  
NRSB Device Code 12193

Laboratory Report for:

Property Tested: Project # 04481387-1

PSI -Fairfax  
2930 Eskridge Road  
Fairfax VA 22031


Jackson Road ES  
Cloverly MD 20904

Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
2392994	3881158	11/12/2018 3:24 pm	11/15/2018 12:22 pm	Main Room APR		< 0.4
2392995	3881189	11/12/2018 6:10 pm	11/15/2018 1:16 pm	Lower Room 214		1.2
2392999	3881219	11/12/2018 6:05 pm	11/15/2018 1:15 pm	Lower Room 214		1.2
2393001	3881229	11/12/2018 3:20 pm	11/15/2018 12:20 pm	Main Room APR		< 0.4
2393003	3881239	11/12/2018 3:20 pm	11/15/2018 12:20 pm	Main Room APR		0.5

**Comment:** Confidential: Results released to client only.

Distributed by: Intertek-PSI (VA)

Date Received: 11/16/2018 Date Logged: 11/16/2018 Date Analyzed: 11/17/2018 Date Reported: 11/19/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

Shawn Price, Director of Laboratory Operations, AccuStar Labs

The uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 105011 AL  
NRSB ARL0007  
Ohio RL41

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
4514 Taylorsville Road  
Dayton OH 45424

Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
3204125	3926831	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		36.1
3204126	3926832	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		34.8
3204127	3926833	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		33.7
3204128	3926834	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		35.8
3204129	3926835	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		35.0
3204130	3926836	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		34.5
3204131	3926837	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		34.6
3204132	3926838	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		34.3
3204133	3926839	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		33.2
3204134	3926840	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike		34.0

**Comment:** A copy of this report was e-mailed to Intertek-PSI (VA)

Test Performed By: Unknown

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/12/2018 Date Reported: 12/13/2018

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is  $\sim \pm 10\%$ . Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT Intertek - PSI

Job Number 187732

NOMINAL Conditions: Radon Conc 32.6 pCi/L Rel. Hum 49.1 % Temp. 70.1 F

Date Start: 12/7/18 Date Stop: 12/10/18

Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0947 Time Stop: 0947

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

Device No.'s: (10) Char. Cans-

Device No.'s: \_\_\_\_\_

3926831 thru 3926840

G2 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

## Chain of Custody

Project Name: MCPS Radon Survey 2018

Name of Schools:

- |                   |                      |                    |
|-------------------|----------------------|--------------------|
| 1. Arcola ES      | 7. North Lake Center | 13. Cold Spring ES |
| 2. Glen Haven ES  | 8. Barnsley ES       | 14. Hoover MS      |
| 3. Jackson Road   | 9. Bayard Rustin ES  | 15. Wayside ES     |
| 4. Cashell ES     | 10. Julius West MS   | 16. English Manor  |
| 5. Frost MS       | 11. Rock Terrace HS  |                    |
| 6. Meadow Hall ES | 12. Churchill HS     |                    |

---

	Date	Initials
Radon Test Kits Deployed	11/12/2018	NL
Radon Test Kits Sampled	11/15/2018	NL
Radon Test Kits Shipped to Lab*	11/15/2018	NL
Radon Test Kits Received by Lab*	11/17/2018; 11/18/2018	NL

\*All samples sent to AccuStar Laboratories, 929 Mount Zion Road, Lebanon, PA 17046 and 2 Saber Way, Haverhill, MA 01835

# RADON SCREENING SURVEY – FOLLOW-UP JACKSON ROAD ELEMENTARY SCHOOL

900 Jackson Road, Silver Spring, Maryland 20904

## EXECUTIVE SUMMARY

Date of Test Report:	3/7/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	10
# Rooms $\geq$ 4.0 pCi/L:	1
Low Value:	<0.3
High Value:	1.3
Confirmed Rooms $\geq$ 4.0 pCi/L US EPA Action Level	1

## Summary of Sampling Events $\geq$ 4.0 pCi/L

Room	Result (pCi/L) 2/29/16 (rev 2) Initial	Result (pCi/L) 3/7/16 Follow-Up	Average Result (pCi/L)
Room 200	7.6	4.5	6.1
108	<0.3 (Open Window)	<0.3	<0.3
109	<0.3 (Open Window)	<0.3	<0.3
115	1.0 (Tampered)	0.6	0.8
116	1.0 (Tampered)	<0.3	0.7
136	<0.3 (Tampered)	<0.3	<0.3
136B	1.2 (Fan On)	1.0	1.1
214C	0.8 (Fan On)	0.6	0.7
214-GYM	1.2 (Fan On)	1.0	1.1
214-GYM	1.4 (Fan On)	1.2 (Tampered)	1.3
Assistant Principal	0.6 (Fan On)	0.8	0.7

Testing Complete at this time. 1 Elevated result in unoccupied storage room.



## MCPS RADON TESTING

### Executive Summary: Jackson Road Elementary School

Date of Test Report:	3/7/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	10
# Rooms $\geq$ 4.0 pCi/L:	1
Low Value:	< 0.3
High Value:	4.5

Rooms with results  $\geq$  4.0 pCi/L:  
Room 200 (4.5 pCi/L)

#### Project Status:

Retesting completed; use the average of the initial and re-test results in a room to determine if remediation is necessary. Testing Complete at this time. 1 Elevated result in unoccupied storage room.



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

March 7, 2016

Mr. Richard Cox  
Indoor Air Quality Team Leader  
Montgomery County Public Schools  
850 Hungerford Drive  
Rockville, MD 20850

Re: **Radon Testing Services**  
KCI Job # 12146341.28

Location: Jackson Road Elementary School  
900 Jackson Road  
Silver Spring, MD 20904

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) pursuant to completing a “short-term” 3 day radon test for the Jackson Road Elementary School, located at 900 Jackson Road in Silver Spring, Maryland 20904 (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 Safety Board (NRSB) Radon Measurement Specialist (certification #14SS056) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from [www.montgomerycountymd.gov/dep/air/radon](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on February 8, 2016 and deployed thirteen (13) activated charcoal (AC) radon test kits. KCI deployed radon test kits in 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 included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted six (6) 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 11, 2016 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:**

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages  $\leq 65^{\circ}$  F.

KCI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.

KCI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. KCI recorded observations of the following conditions in each room at 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.

### **Results:**

The results of the radon test analysis indicated the following:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
<b><math>\geq 4.0</math> pCi/L</b>	200	4.5
<b><math>&lt; 4.0</math> pCi/L</b>	See Attachment B	

Notes:

D- Duplicate sample

The field blank, office blanks, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

The sampling locations, field observations, and analytical results are listed on Table 1 (Attachment B). The laboratory analytical results are also attached (Attachment C). Laboratory results and exposure data for the spike samples are also included in Attachment C.

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) 316-7800.

Sincerely,



James M. Moulds  
Radon Measurement Specialist  
KCI Technologies, Inc.

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

# ATTACHMENT A

## Floor Plan With Test Locations

## ATTACHMENT B

### Radon Test Summary Spreadsheet

**Table Notes:**

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank\*

PM- Project Manager

QC- Quality Control

\*Office blanks were submitted at a rate of 1% for all samples deployed in Phase 8 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Jackson Road Elementary School		
Test Period: 02/08/16-02/11/16		
Kit Number	Room / Area	Result
7730176	108	< 0.3
7730175	109	< 0.3
7730173	115	0.6
7730174	116	< 0.3
7730177	136	< 0.3
7730181	200	4.5
7730179	214	1.0
7730182	136B	1.0
7730178	* 214 (tampered)	1.2
7730180	214C	0.6
7730170	ASST PRINC	0.8

Table Note:

\* Missing or Compromised Sample

Radon Testing Results		
Jackson Road Elementary School		
Test Period: 02/08/16-02/11/16		
Kit Number	QC Type	Result
7730171	D (ASST PRIN)	1.1
7730172	FB (ASST PRIN)	< 0.3

Table Note:

\* Missing or Compromised Sample

## ATTACHMENT C

### Laboratory Analytical Results



---

February 25, 2016

**LABORATORY ANALYSIS  
REPORT \*\***

---

Radon test result report for:

**JACKSON ROAD ELEMENTARY SCHOOL  
MAIN**

---

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730176	108	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	< 0.3	2016-02-15
7730175	109	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	< 0.3	2016-02-15
7730173	115	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	0.6 ± 0.3	2016-02-15
7730174	116	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	< 0.3	2016-02-15
7730177	136	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	< 0.3	2016-02-15
7730182	136B	2016-02-08 @ 1:00 pm	2016-02-11 @ 1:00 pm	1.0 ± 0.3	2016-02-15
7730181	200	2016-02-08 @ 1:00 pm	2016-02-11 @ 1:00 pm	4.5 ± 0.5	2016-02-15
7730178	214	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	1.2 ± 0.3	2016-02-15
7730179	214	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	1.0 ± 0.3	2016-02-15
7730180	214C	2016-02-08 @ 1:00 pm	2016-02-11 @ 1:00 pm	0.6 ± 0.3	2016-02-15
7730171	ASST PRIN	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	1.1 ± 0.3	2016-02-15
7730172	ASST PRIN	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	< 0.3	2016-02-15
7730170	ASST PRINC	2016-02-08 @ 12:00 pm	2016-02-11 @ 1:00 pm	0.8 ± 0.3	2016-02-15

---

---

February 25, 2016

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

---

Radon test result report for:

**MCPS RADON  
PHASE 8  
OFFICE BLANKS**

---

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7729754	0	2016-02-08 @ 4:00 pm	2016-02-11 @ 5:00 pm	< 0.3	2016-02-15
7729757	0	2016-02-08 @ 4:00 pm	2016-02-11 @ 5:00 pm	< 0.3	2016-02-15
7729758	0	2016-02-08 @ 4:00 pm	2016-02-11 @ 5:00 pm	< 0.3	2016-02-15

---

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

Radon test result report for:  
**TRANSIT- PHASE 7, 8, 9**  
**NONE**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7734937	1	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734946	10	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734955	11	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734956	12	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734959	13	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734930	14	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734953	15	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734954	16	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734940	17	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734949	18	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734948	19	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734939	2	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734942	20	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734929	21	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734933	22	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734934	23	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734936	24	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734943	25	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734944	26	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734935	27	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734928	28	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734952	29	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734947	3	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734931	30	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734932	31	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718520	32	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718523	33	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718522	34	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718521	35	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734945	4	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734960	5	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734958	6	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734951	7	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734957	8	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734938	9	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23

February  
15,  
2016

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

Spike Sample Laboratory Results

Radon test result report for:  
**MCPS**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7718273	101A	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.5 ± 0.6	2016-02-04
7718281	102B	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.4 ± 0.6	2016-02-04
7718282	103C	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.3 ± 0.6	2016-02-04
7718288	104D	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.7 ± 0.6	2016-02-04
7718289	105E	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.6 ± 0.6	2016-02-04
7718291	106F	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.5 ± 0.6	2016-02-04

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

Note: Spike samples are test canisters that are deliberately exposed to a controlled high level of radon in a laboratory. They provide a quality control measure in the testing process and do NOT reflect radon levels in the building being tested.

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCF Technologies Inc. Job Number 173704

NOMINAL Conditions: Radon Conc 5.9 pCi/L Rel. Hum 45.9 % Temp. 79.0 F

Date Start: 11/30/16 Date Stop: 2/1/16

Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0926 Time Stop: 0926

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

Device No.'s: (6) Char. Bags -

Device No.'s: \_\_\_\_\_

7718281, 7718282, 7718291,

7718288, 7718289, 7718273

3 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



---

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 Phase 8

Name of Schools:

- |                          |                          |
|--------------------------|--------------------------|
| 1. Blair G. Ewing Center | 12. Jackson Road ES      |
| 2. Cedar Grove ES        | 13. Jones Lane ES        |
| 3. Clarksburg ES         | 14. Lake Seneca ES       |
| 4. Cloverly ES           | 15. Laytonsville ES      |
| 5. Cold Spring ES        | 16. Montgomery Knolls ES |
| 6. Damascus ES           | 17. North Chevy Chase ES |
| 7. Dufief ES             | 18. Oakview ES           |
| 8. East Silver Spring    | 19. Randolph Maint       |
| 9. Georgian Forest ES    | 20. Robert Frost MS      |
| 10. Germantown ES        | 21. Shady Grove Maint    |
| 11. Glenallen ES         | 22. Viers Mill ES        |

---

	Date	Initials
Radon Test Kits Deployed	2/8/16	JM
Radon Test Kits Collected	2/11/16	JM
Radon Test Kits Shipped to Lab*	12/11/16	JM
Radon Test Kits Received by Lab*	12/15/16	JM

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



## MCPS RADON TESTING

### Executive Summary: Jackson Road Elementary School

Date of Test Report:	2/29/2016 (Rev 2)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	62
# Rooms $\geq 4.0$ pCi/L:	1
Low Value:	< 0.3
High Value:	7.6

Rooms with results  $\geq 4.0$  pCi/L:  
Room: 200 (7.6 pCi/L)

#### Project Status:

Initial testing completed; re-test needed for results  $\geq 4.0$  pCi/L.  
Initial testing completed; missing or compromised samples need re-test.



February 29, 2016 (Rev 2)

Mr. Richard Cox  
Indoor Air Quality Team Leader  
Montgomery County Public Schools  
850 Hungerford Drive  
Rockville, MD 20850

Re: **Radon Testing Services**  
KCI Job # 12146341.19

Location: Jackson Road Elementary School  
900 Jackson Road  
Silver Spring, MD 20904

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) pursuant to completing a “short-term” 3 day radon test for the Jackson Road Elementary School, located at 900 Jackson Road in Silver Spring, Maryland 20904 (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 Safety Board (NRSB) Radon Measurement Specialist (certification #14SS056) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from [www.montgomerycountymd.gov/dep/air/radon](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on December 15, 2016 and deployed seventy-five (75) activated charcoal (AC) radon test kits. KCI deployed radon test kits in 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 included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted six (6) 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 18, 2016 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:**

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages  $\leq 65^{\circ}\text{F}$ .

KCI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.

KCI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. KCI recorded observations of the following conditions in each room at 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.

### **Results:**

The results of the radon test analysis indicated the following:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
<b><math>\geq 4.0</math> pCi/L</b>	200	7.6
<b><math>&lt; 4.0</math> pCi/L</b>	See Attachment B	

Notes:

D- Duplicate sample

All field blanks, office blank, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

The sampling locations, field observations, and analytical results are listed on Table 1 (Attachment B). The laboratory analytical results are also attached (Attachment C). Laboratory results and exposure data for the spike samples are also included in Attachment C.

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) 316-7800.

Sincerely,



James M. Moulds  
Radon Measurement Specialist  
KCI Technologies, Inc.

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

# ATTACHMENT A

## Floor Plan With Test Locations

## ATTACHMENT B

### Radon Test Summary Spreadsheet

**Table Notes:**

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Jackson Road E.S		
Test Period: 12/15/15-12/18/15		
Kit Number	Room / Area	Result
7706282	100	2.1
7706290	104	1.6
7704516	105	1.1
7704522	106	0.8
7706267	107	0.6
7706286	113	0.6
7706289	114	0.8
7706300	121	1.1
7706268	124	0.8
7706265	126	1.3
7706264	135	0.7
7704518	136	< 0.3
7706263	139	0.7
7706261	141	0.6
7706259	143	0.9
7706257	147	0.8
7706258	154	0.6
7706254	155	0.6
7706356	163	1.0
7706357	164	1.4
7706358	166	0.8
7706359	168	< 0.3
7706360	169	0.6
7706361	171	0.9
7706363	172	0.8
7706364	174	0.9
7704512	180	0.8
7704513	181	0.6
7706253	200	7.6
7706255	201	1.6
7706281	202	0.7
7706252	204	< 0.3
7706279	206	1.1
7706277	209	< 0.3
7706276	211	0.9
7706353	360	< 0.3
7706348	374	0.7
7706297	100 OFFICE	2.5
7706287	103A	1.7
7706299	103B	1.8
7706288	103C	1.4
7706291	103D	2.3
7706292	103E	1.8
7706298	* 108 (Open Window/Exterior Door)	< 0.3
7706294	* 109 (Open Window/Exterior Door)	< 0.3
7706293	* 115 (Tampered)	1.0

Table Note:

\* Missing or Compromised Sample

Radon Testing Results		
Jackson Road E.S		
Test Period: 12/15/15-12/18/15		
Kit Number	Room / Area	Result
7706295	* 116 (Tampered)	1.0
7706285	118A	1.7
7704521	* 136 (Tampered)	< 0.3
7706272	* 136B (Fan On)	1.2
7706262	141A	0.5
7706275	209B	0.7
7706251	209C	< 0.3
7706274	214A	1.6
7706271	* 214C (Fan On)	0.8
7706270	* 214-GYM (Fan On)	1.2
7706273	* 214-GYM (Fan On)	1.4
7704552	* ASSISTANT PRINCI (Fan On)	0.6
7704520	FRONT OFFICE	1.1
7706284	MEDIA CENTER	1.8
7706296	MEDIA CENTER	1.2
7706269	MEDIA CENTER OFF	3.1
7706283	NURSES OFFICE	0.6
7704556	* PRINCIPLE (Fan On)	0.9
7706266	RECORDS	0.9

Table Note:

\* Missing or Compromised Sample

Radon Testing Results		
Jackson Road E.S		
Test Period: 12/15/15-12/18/15		
Kit Number	QC Type	Result
7704517	D (105)	1.1
7706260	D (143)	< 0.3
7706365	D (174)	1.3
7706256	D (201)	2.1
7706278	D (211)	1.3
7706354	D (360)	0.9
7704515	FB (182A)	< 0.3
7706280	FB (209)	< 0.3
7706355	FB (360)	< 0.3
7708209	OB (OFFICE BLANK)	< 0.3

Table Note:

\* Missing or Compromised Sample



## ATTACHMENT C

### Laboratory Analytical Results

Radon test result report for:  
**JACKSON ROAD E.S  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706282	100	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.1 ± 0.4	2015-12-22
7706297	100 OFFICE	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.5 ± 0.4	2015-12-22
7706287	103A	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.7 ± 0.4	2015-12-22
7706299	103B	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.8 ± 0.4	2015-12-22
7706288	103C	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22
7706291	103D	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	2.3 ± 0.4	2015-12-22
7706292	103E	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.8 ± 0.4	2015-12-22
7706290	104	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.6 ± 0.4	2015-12-22
7704516	105	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7704517	105	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7704522	106	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7706267	107	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706298	108	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706294	109	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706286	113	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706289	114	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7706293	115	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.0 ± 0.3	2015-12-22
7706295	116	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.0 ± 0.3	2015-12-22
7706285	118A	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.7 ± 0.3	2015-12-22
7706300	121	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7706268	124	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	0.8 ± 0.3	2015-12-22
7706265	126	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	1.3 ± 0.3	2015-12-22
7706264	135	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7704518	136	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704521	136	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706272	136B	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7706263	139	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.7 ± 0.3	2015-12-22
7706261	141	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706262	141A	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.5 ± 0.3	2015-12-22
7706259	143	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.9 ± 0.3	2015-12-22
7706260	143	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706257	147	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7706258	154	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706254	155	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706356	163	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.0 ± 0.3	2015-12-22
7706357	164	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.4	2015-12-22
7706358	166	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22

December 30, 2015

# LABORATORY ANALYSIS REPORT \*\*

Radon test result report for:  
**JACKSON ROAD E.S**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706359	168	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	< 0.3	2015-12-22
7706360	169	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	0.6 ± 0.3	2015-12-22
7706361	171	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	0.9 ± 0.3	2015-12-22
7706363	172	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	0.8 ± 0.3	2015-12-22
7706364	174	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	0.9 ± 0.3	2015-12-22
7706365	174	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	1.3 ± 0.3	2015-12-22
7704512	180	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.8 ± 0.3	2015-12-22
7704513	181	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	0.6 ± 0.3	2015-12-22
7704515	182A	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	< 0.3	2015-12-22
7706255	201	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.6 ± 0.3	2015-12-22
7706256	201	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	2.1 ± 0.3	2015-12-22
7706253	200	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	7.6 ± 0.5	2015-12-22
7706281	202	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7706252	204	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706279	206	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7706280	209	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706275	209B	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7706251	209C	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706276	211	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.9 ± 0.3	2015-12-22
7706278	211	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.3 ± 0.3	2015-12-22
7706270	214-GYM	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7706273	214-GYM	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22
7706274	214A	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.6 ± 0.3	2015-12-22
7706271	214C	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7706353	360	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	< 0.3	2015-12-22
7706354	360	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	0.9 ± 0.4	2015-12-22
7706355	360	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	< 0.3	2015-12-22
7706348	374	2015-12-15 @ 5:00 pm	2015-12-18 @ 12:00 pm	0.7 ± 0.3	2015-12-22
7706277	209	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704552	ASSISTANT PRINCI	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	0.6 ± 0.3	2015-12-22
7704520	FRONT OFFICE	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	1.1 ± 0.3	2015-12-22
7706296	MEDIA CENTER	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7706269	MEDIA CENTER OFF	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	3.1 ± 0.4	2015-12-22
7706284	MIDEA CENTER	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.8 ± 0.3	2015-12-22
7706283	NURSES OFFICE	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	0.6 ± 0.3	2015-12-22
7704556	PRINCIPPLE	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	0.9 ± 0.3	2015-12-22
7706266	RECORDS	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.9 ± 0.3	2015-12-22

---

December  
30,  
2015

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

---

Radon test result report for:  
**JACKSON ROAD E.S  
OFFICE BLANK**

---

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7708209	OFFICE BLANK	2015-12-15 @ 5:00 pm	2015-12-18 @ 5:00 pm	< 0.3	2015-12-22

---

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

December  
29,  
2015

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

Radon test result report for:  
**TRANSIT DEC 14 2015**  
**NONE**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704395	TRANSIT 1	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706508	TRANSIT 10	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706510	TRANSIT 11	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706511	TRANSIT 12	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706505	TRANSIT 13	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704371	TRANSIT 14	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706506	TRANSIT 15	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704381	TRANSIT 16	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704399	TRANSIT 17	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704390	TRANSIT 18	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704396	TRANSIT 2	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704364	TRANSIT 3	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704370	TRANSIT 4	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704368	TRANSIT 5	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706524	TRANSIT 6	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706526	TRANSIT 7	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706518	TRANSIT 8	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706516	TRANSIT 9	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16

December  
23,  
2015

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

Spike Sample Laboratory Results

Radon test result report for:  
**MCPS**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706380	101	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	25.2	2015-12-23
7706381	102	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.5	2015-12-23
7706208	103	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	27.7	2015-12-23
7705132	104	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	28.6	2015-12-23
7706366	105	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.5	2015-12-23
7706211	106	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.1	2015-12-23

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

**Note: Spike samples are test canisters that are deliberately exposed to a controlled high level of radon in a laboratory. They provide a quality control measure in the testing process and do NOT reflect radon levels in the building being tested.**

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 173224

NOMINAL Conditions: Radon Conc 26.9 pCi/L Rel. Hum 49.6 % Temp. 69.9 F

Date Start: 12/18/15 Date Stop: 12/21/15 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0929 Time Stop: 0929 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: 7705132, 7706208, Device No.'s: \_\_\_\_\_

7706211, 7706366, \_\_\_\_\_

7706380, 7706381 \_\_\_\_\_

F3 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



---

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 Phase I

Name of Schools:

- |                            |                        |                        |                       |
|----------------------------|------------------------|------------------------|-----------------------|
| 1. Westland M.S.           | 6. South Lake E.S.     | 11. Highland View E.S. | 16. Ridgeview M.S.    |
| 2. East Silver Spring E.S. | 7. Jones Lane E.S.     | 12. Cresthaven E.S.    | 17. Rockwell E.S.     |
| 3. Oakland Terrace E.S.    | 8. Quince Orchard H.S. | 13. Viers Mill E.S.    | 18. Oak View E.S.     |
| 4. Rocking Horse Road E.S. | 9. Damascus E.S.       | 14. Smith Center       | 19. Jackson Road E.S. |
| 5. Beall E.S.              | 10. Westbrooke E.S.    | 15. Rosemont E.S.      | 20. Highland E.S.     |
|                            |                        |                        | 21. Watkins Mill E.S. |

---

	Date	Initials
Radon Test Kits Deployed	12/15/15	KM
Radon Test Kits Collected	12/18/15	KM
Radon Test Kits Shipped to Lab*	12/18/15	KM
Radon Test Kits Received by Lab*	12/22/15	KM

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