

School / Facility Radon Testing Report Form

School Year: 24-25

Facility:	Stone Mill Elementary School			
Address	14323 S	tonebridge View Dr.		
Address:	North P	North Potomac, MD 20878		
		Scheduled Re-Testing - 🛛 2-year or 🛛 5-year schedule		
Reason for Testing:		Clearance Testing (Post-Mitigation)		
		Building Envelope or HVAC Upgrades		
		New Construction – Addition or Facility		
		Active Mitigation (2-year regular schedule)		
Current Radon Status:		No Active Mitigation (5-year regular schedule)		
		Not Previously Tested (New Facility)		
Round of Testing:		Initial Testing -or- D Follow-up Testing		
Testing Status:		☑ No Further Testing Needed - or - □ Follow-Up Testing Required		

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

Mitigation -	Facility Radon Status:			
🛛 Not Required	🛛 No Change in Status			
□ Required (≥4.0-pCi/L)	□ Active Mitigation (2-year regular schedule)			
Rooms:	□ No Active Mitigation (5-year regular schedule)			
Number of Rooms Tested	45	Lowest Value (pCi/L)	<0.3	
Number of Rooms (≥4.0-pCi/L)	0	Highest Value (pCi/L)	1.0	

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 ≥2.0-pCi/L; ≥2.7-pCi/L; ≥4.0-pCi/L; and ≥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

🛛 Passive 🔤 Charcoal Absorpti		ion (CAD) 🛛 Alpha Track (ATD) 🗌 Other		
□ Continuous □ Electret ion Chamber (EIC) □ Electronic Integration (EID)				
Other–Specify here:				
Air Chek – Radon T	est Kits			
Radon Labs				
ng or Retrieving Te ber	est Devices and	Organization/Company		
Tyler McCleaf, CSP Cert. # 111004-RMP		KCI Technologies, Inc.		
If noncertified individuals, the qualified measurement professional providing oversight -				
	 Passive Continuous Other–Specify here: Air Chek – Radon T Radon Labs ng or Retrieving Te ber Cert. # 111004-RMF 	☑ Passive ☑ Charcoal Absorpti ☑ Continuous ☑ Electret ion Cham Other-Specify here: ☑ Air Chek – Radon Test Kits ☑ Radon Labs ☑ ng or Retrieving Test Devices and ber ☑ Cert. # 111004-RMP ☑		

Testing

Short-Term	Length of	Date of Deployment and 2/3/20		/3/2025		
□ Long-Term	Test (days):	5	Retrieval (mm/dd/yy):	2	/6/2025	
Does the test pe	🖾 No					
If " Yes " please explain/detail in the space below:						
Was HVAC operating under occupied conditions?						
If " No " please explain/detail in the space below:						



Testing (continued)

	Detectors Deployed				
	Ground-Contact		Upper-Level(s)		Tatal
Round of Testing	Initial	Follow-Up	Initial	Follow-Up	Iotal
Test Locations ¹	43	0	2	0	45
Duplicates ²	4	0	0	0	4
Field Blanks ³	2	0	0	0	2
Grand Total			51		

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 <u>per floor</u> (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.

	QA/QC	Total	
Round of Testing	Initial Follow-Up		Total
Spikes ¹	Not applicable		10
Trip Blanks ²	1	0	1
Office Blanks ^{3, 4}	1	0	1
			12

1 - 3% of EIC detectors; and 3% from <u>each LOT</u> of CAD and ATD detectors; a <u>maximum of 6-spiked</u> <u>measurements</u> per month for both EIC detectors and <u>each LOT</u> 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, <u>analyzed prior to deployment</u>, 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 ± 25% of the chamber's reference value?	🛛 Yes	No
Quality Control measurements comply with QA/QC requirements in the submitted testing organization's/company's QA plan?		No
Round of Testing	Initial	Follow-Up
All Field, Trip and Office Blanks are ≤ (less than or equal to)	🛛 Yes	🛛 Yes
to the Method Detection Limit?	🗆 No	🛛 No
For all Duplicate Samples ¹ , the higher value is $\leq 2x$ the lower value?	🛛 Yes	🗆 Yes
For all Duplicate samples, the figher value is 2 2x the lower value?	🗌 No	🛛 No
For all Duplicate Samples ¹ , Relative Percent Difference(s) (RPD) ² are	🛛 Yes	🗌 Yes
less than the Warning Level ³ ?	🗆 No	🛛 No
For all Duplicate Samples ¹ , Relative Percent Difference(s) (RPD) ² are	🛛 Yes	🗌 Yes
less than the Control Level ³ ?	🗆 No	🛛 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	
≥ 4.0-pCi/L	28% RPD	36% RPD	





	Ground-Contact		Upper-Level(s)		Total
Round of Testing	Initial	Follow-Up	Initial	Follow-Up	Total
Number of test locations:	43	0	3	0	45
Number of locations ≥8.0-pCi/L:	0	0	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	0	0	0	0	0
Number of locations ≥2.7 and <4-pCi/L:	0	0	0	0	0
Number of locations ≥2.0 and <2.7-pCi/L:	0	0	0	0	0
Number of missing required test locations ³ :	0	0	0	0	0
Number of failed duplicate control locations:	0	0	0	0	0
Percentage of missing test locations for the facility ^{4,5} :	0	0	0	0	0

Summary of Test Results¹ and Determination of Valid Measurements²

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 Results¹ and Determination of Valid Measurements² (continued)

Round of Testing	Initial	Follow-Up
Were test devices deployed in all occupied and intended to be occupied rooms in	🛛 Yes	🗆 Yes
contact with the ground, and, if applicable, 10% of upper floor rooms?	🗆 No	🛛 No
Were valid measurements obtained in all occupied and intended to be occupied	🛛 Yes	🗌 Yes
rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?		🛛 No
If Yes to both above – then Testing Status – 'No Further Testing Needed' mark 'NA' below and complete Conclusions section		
If No to either above, were all results obtained under 4.0-pCi/L and	🗆 Yes	🗆 Yes
were sufficient valid measurements obtained? ^{1,2}	🗆 No	🗆 No
If No, then - 'Follow-up Testing Required' continue below.	🛛 NA	🛛 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 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 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 \geq 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	Follow same procedures as Initial	Not	Follow Initial Testing
Measurements	Testing	Applicable	procedures
Results ≥ 4.0-pCi/L	Deploy two Short-term follow-up	≥4.0	Mitigation Required
	tests and required blanks and	≥2.0 and <4.0	Consider Mitigation
Failed QC checks	duplicates; Average the results of the	<2.0	Mitigation Not
	two tests	<2.0	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						
Stone Mill Elementary School						
	Test Period: 2/3/2025 - 2/6/2025					
Kit Number	Room / Area	Result				
11951715	1	< 0.3				
11951710	2	0.5				
11951711	2	0.9				
11951712	3	< 0.3				
11951709	4	< 0.3				
11951707	5	< 0.3				
11951708	6	< 0.3				
11951705	7	< 0.3				
11951757	8	< 0.3				
11951747	9	< 0.3				
11951755	9	< 0.3				
11951748	10	< 0.3				
11951750	10	< 0.3				
11951739	11	< 0.3				
11951731	12	< 0.3				
11951732	13	< 0.3				
11951729	15	< 0.3				
11951736	15	< 0.3				
11951742	16	0.7				
11951741	17	< 0.3				
11951734	18	< 0.3				
11951735	19	< 0.3				
11951733	21	< 0.3				
11951751	22	< 0.3				
11951728	23	< 0.3				
11951713	26	< 0.3				
11951726	34	< 0.3				
11951716	ASSISTANT PRINCIPAL	< 0.3				
11951730	BSO	< 0.3				
11951744	BSO	< 0.3				
11951717	CONFERENCE	< 0.3				
11951719	COUNSELOR	< 0.3				
11951738	GE	< 0.3				
11951714	GYM	< 0.3				
11951721	GYM	< 0.3				
11951720	GYM OFFICE	< 0.3				
11951722	GYM OFFICE	< 0.3				

Table 1- Radon Testing Results					
	Stone Mill Elementary School				
	Test Period: 2/3/2025 - 2/6/2025				
Kit Number	Room / Area	Result			
11951724	HEALTH	< 0.3			
11951723	HEALTH OFFICE	< 0.3			
11951725	MAIN OFFICE	< 0.3			
11951740	MEDIA	0.7			
11951749	MEDIA	< 0.3			
11951756	MEDIA OFFICE	1.0			
11951702	MP	0.6			
11951737	MPR	< 0.3			
11951745	MPR	< 0.3			
11951718	PRINCIPAL	< 0.3			
11951704	SR	< 0.3			
11951703	SR WORKROOM	0.6			
11951727	TEACHER LOUNGE	< 0.3			
11951706	WORKROOM	< 0.3			

		Table 2 - S	ummary Tes	ting Results ≥2.	0 pCi/L		
		Sto	one Mill Eler	mentary School			
		Tes	t Period: 2/3	8/2025 - 2/6/2025			
≥2.0 and <2	2.7 pCi/L	≥2.7 and <4	.0 pCi/L	≥4.0 and <8	3.0 pCi/l	≥8.0 p0	Ci/L
Room / Area	Result	Room / Area	Result	Room / Area	Result	Room / Area	Result
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3 - QC Radon Testing Results						
	Stone Mill Elementary School					
Т	est Period:	2/3/2025 - 2/6/2025				
Kit Number	QC Type	Room / Area	Result			
11951711	D	2	0.9			
11951747	FB	9	< 0.3			
11951750	D	10	< 0.3			
11951729	D	15	< 0.3			
11951730	D	BSO	< 0.3			
11951722	FB	Gym Office	< 0.3			
11931691	OB	OFFICE BLANK	< 0.3			
11931692	TB	TRAVEL BLANK	< 0.3			

Table 3a - Duplicate Worksheet / Data Validation Stone Mill Elementary School Test Period: 2/3/2025 - 2/6/2025 Duplicate Concentrations (pCi/L) and OC Checks Sample ID 2x the **Relative Percent** Check #1 Check #2 Kit Numbers Room / Area Higher Average Check #3 Lower (Pass/Fail) Lower (Pass/Fail) Difference (RPD) 11951710 11951711 2 0.9 0.5 \checkmark 1.0 PASS 0.7 <1-pCi/L \checkmark 11951736 11951729 15 0.3 0.3 \checkmark 0.6 PASS 0.3 <1-pCi/L \checkmark PASS 11951744 BSO 0.3 0.6 0.3 <1-pCi/L 11951730 0.3 \checkmark \checkmark 11951748 10 PASS

 \checkmark

0.6

0.3

Average (pCi/L)

< 2.0

Between 2.0 and 3.9

≥ 4.0

<1-pCi/L

Warning Level

1-pCi/L

50% RPD

28% RPD

 \checkmark

Control Level

NA

67% RPD

36% RPD

NOTES:

QC Check #1 - Data Entry

11951750

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

0.3

- enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2

0.3

- enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2

Table 4 - Summary of Invalid Measurement Locations			
Ston	e Mill Elementar	y School	
Tes	t Period: 2/3/25	- 2/6/25	
Kit Number	Room/Area	Reason	
N/A	N/A	N/A	
		l	

Attachment 2: Laboratory Reports

Radon test result report for: STONE MILL ES MAIN

Kit #	Room Id	Started		Ended	pCi/L	Analyzed
11951715	1	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951748	10	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951750	10	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951739	11	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951731	12	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951732	13	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951736	15	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951729	15	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951742	16	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	0.7 ± 0.3	2025-02-10
11951741	17	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951734	18	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951735	19	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951710	2	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	0.5 ± 0.3	2025-02-10
11951711	2	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	0.9 ± 0.3	2025-02-10
11951733	21	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951751	22	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951728	23	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951713	26	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951712	3	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951726	34	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951709	4	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951707	5	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951708	6	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951705	7	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951757	8	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951747	9	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951755	9	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951716	ASSISTANT PRINCIPAL	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951730	BSO	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951744	BSO	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951717	CONFERENCE	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951719	COUNSELOR	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951738	GE	2025-02-03 @ 1:0	00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951721	GYM	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951714	GYM	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951720	GYM OFFICE	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951722	GYM OFFICE	2025-02-03 @ 12:	:00 pm	2025-02-06 @ 1:00 pm	< 0.3	2025-02-10

Radon test result report for: STONE MILL ES MAIN

11951724HEALTH2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11951723HEALTH OFFICE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951725MAIN OFFICE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951724	HEALTH	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951725MAIN OFFICE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951740MEDIA2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.7 ± 0.32025-02-1011951749MEDIA2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951723	HEALTH OFFICE	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951740MEDIA2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.7 ± 0.32025-02-1011951749MEDIA2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951725	MAIN OFFICE	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951749MEDIA2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951756MEDIA OFFICE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm1.0 ± 0.32025-02-1011951702MP2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.6 ± 0.32025-02-1011951737MPR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951740	MEDIA	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	0.7 ± 0.3	2025-02-10
11951756MEDIA OFFICE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm1.0 ± 0.32025-02-1011951702MP2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.6 ± 0.32025-02-1011951737MPR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951749	MEDIA	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951702MP2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.6 ± 0.32025-02-1011951737MPR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951756	MEDIA OFFICE	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	1.0 ± 0.3	2025-02-10
11951737MPR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951745MPR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951702	MP	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	0.6 ± 0.3	2025-02-10
11951745MPR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951718PRINCIPAL2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951737	MPR	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951718PRINCIPAL2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951704SR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951745	MPR	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951704SR2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.32025-02-1011951703SR WORKROOM2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.6 ± 0.32025-02-1011951727TEACHER LOUNGE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951718	PRINCIPAL	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951703SR WORKROOM2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm0.6 ± 0.32025-02-1011951727TEACHER LOUNGE2025-02-03 @ 12:00 pm2025-02-06 @ 1:00 pm< 0.3	11951704	SR	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951727 TEACHER LOUNGE 2025-02-03 @ 12:00 pm 2025-02-06 @ 1:00 pm < 0.3 2025-02-10	11951703	SR WORKROOM	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	0.6 ± 0.3	2025-02-10
	11951727	TEACHER LOUNGE	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10
11951706 WORKROOM 2025-02-03 @ 12:00 pm 2025-02-06 @ 1:00 pm <0.3 2025-02-10	11951706	WORKROOM	2025-02-03 @ 12:00 pt	m 2025-02-06 @ 1:00 pm	< 0.3	2025-02-10

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: OFFICE MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11931691	0	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11931691	0	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-0

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: TRAVEL MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11931692	Т	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10

EM OSORE IN DOWSER-IN	IUNITER RADUN CHAMBER
CLIENT KCI TECHNOLOGIES	Jwc Job Number 2000 1560
NOMINAL Conditions: Radon Conc 50.6	pCi/L Rel. Hum <u>50.6</u> % Temp. <u>70.8</u>
Date Start: 12/14/24 Date Stop: 13/17/24	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	
By 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:

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

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

**** 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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIC	5. INC Job Number 2000 2919
NOMINAL Conditions: Radon Conc 7.0	pCi/L Rel. Hum 51.4 % Temp. 79.7 F
Date Start: 3/1/23 Date Stop: 3/10/2	Date Start: Date Stop:
Time Start: 0833 Time Stop: 0833	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 μR/h Elevation = 820 ft

**** 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



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Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing February 3rd – February 6th, 2025

Name of Schools:

- 1. A. Mario Loiederman MS
- 2. Parkland MS
- 3. Rockville HS
- 4. Stone Mill ES
- 5. Wyngate ES

	Date	Initials
Radon Test Kits Deployed	2/3/2025	an
Radon Test Kits Collected	2/6/2025	M
Radon Test Kits Shipped to Lab*	2/6/2025	an
Radon Test Kits Received by Lab*	2/8/2025	M

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



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Site Name	Stone Mill Elementary School		
Date of Report	2/28/2020		
Round of Testing	Initial		
	Follow-up		
	Post Remediation		
	2 year testing		
	5 year testing		
	HVAC Upgrade		
	Window Replacement		
	New Addition		
	New Facility		
# of Rooms Tested	3		
# Rooms ≥4.0 pCi/L	0		
Lowest Value	<0.3 pCi/L		
Highest Value	<0.3 pCi/L		

MCPS RADON TESTING - EXECUTIVE SUMMARY

Project Status

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



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2/28/2020

Mr. Richard Cox, MS Team Leader Montgomery County Public Schools Division of Maintenance Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #1214634188

Location: Stone Mill Elementary School 14323 Stonebridge View Drive North Potomac, Maryland 20878

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Stone Mill Elementary School, located at 14323 Stonebridge View Drive in North Potomac, Maryland 20878 (subject site).

SCOPE OF SERVICES

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

KCI visited the site on 2/4/2020 and deployed seven (7) 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.

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

1. Rooms with missing test kits from the December 2019 testing period (i.e. test kit was deployed but not recovered),

- 2. Rooms with invalidated test kits from the December 2019 testing period (e.g. an open window in the room or disturbed test kit),
- 3. Rooms which were locked/inaccessible during the December 2019 testing period,
- 4. Rooms with elevated December 2019 results (i.e. \geq 3.5 piC/L),
- 5. Rooms previously tested for radon but not tested in December 2019, and
- 6. Additional rooms that require testing (if applicable.)

A floor plan map of the building with the test locations is included as Appendix 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, Inc. prior to being returned to the laboratory for analysis.

KCI returned to the site on 2/7/2020 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a NRSB certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

• Follow-up to initial testing.

These tests were conducted to:

• Evaluate radon concentrations at the facility.

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

KCI recorded observations of the following conditions in each room 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.

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 ranged from the mid-30s to the low-50s; and high temperatures ranged from the upper-40s to the mid-60s. Maximum sustained winds ranged from 13-21 miles per hour. Average humidity was approximately 76%. A total of 1.09 Inches of rain were recorded during the testing period. The weather conditions during the testing period may have resulted in atypical radon test results for this facility.

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	None	N/A
≤4.0 piC/L	See Attachment 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 410-316-7800.

Sincerely,

Mr. Tyler P. McCleaf Radon Measurement Provider KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

<u>Floor Plan Legend</u> X-Sample Location (in red) X- Previous Sample Location 1- Not Samled; No Ground Contact 2- Not Samled: Uncorpusied (or g. Store

2- Not Samled; Unoccupied (e.g. Storage, Mechanical)

3- Not Samled; High Humidity/Moisture

4- Not Samled; Bathroom/Hallway

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

Table 1- Radon Testing Results				
	Stone Mill Elementary School			
	Test Period: 02/04/20-02/07/20			
Kit Number	Room / Area	Result		
9339941	15	<0.3		
9339945	ASSISTANT PRINCIPAL'S OFFICE	<0.3		
9339947	9339947 ASSISTANT PRINCIPAL'S OFFICE			
9339944	ASSISTANT PRINCIPAL'S OFFICE	<0.3		
9339942	COUNSELORS OFFICE	<0.3		
9334909	OFFICE BLANK	<0.3		
9334910	OFFICE BLANK	<0.3		

Table 2- Radon Testing Results					
Stone Mill Elementary School					
	Test Period: 02/04/20-02/07/20				
Kit Number	QC Type	QC Type Room / Area			
9339944 D ASSISTANT PRINCIPAL'S OFFICE		<0.3			
9339947	FB	ASSISTANT PRINCIPAL'S OFFICE	<0.3		
9334902	TRANSIT BLANK	NA	<0.3		

ATTACHMENT C

Laboratory Analytical Results

February 11, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9339941	15	2020-02-04 @ 9:00 a	m 2020-02-07 @ 8:00 am	< 0.3	2020-02-11
9339945	ASSISTANT PRINCIPAL'S OFFICE	2020-02-04 @ 9:00 a	m 2020-02-07 @ 8:00 am	< 0.3	2020-02-11
9339947	ASSISTANT PRINCIPAL'S OFFICE	2020-02-04 @ 9:00 a	m 2020-02-07 @ 8:00 am	< 0.3	2020-02-11
9339944	ASSISTANT PRINCIPAL'S OFFICE	2020-02-04 @ 9:00 a	m 2020-02-07 @ 8:00 am	< 0.3	2020-02-11
9339942	COUNSELOR'S OFFICE	2020-02-04 @ 9:00 a	m 2020-02-07 @ 8:00 am	< 0.3	2020-02-11

EXPOSURE IN BOWSER-MORNER RADON CHAMBER				
ies Inc. Job Number 194523				
_pCi/L Rel. Hum <u>49.8</u> % Temp. <u>70.2</u> F				
O Date Start: Date Stop:				
Time Start: Time Stop:				
Device No.'s:				
Date Start: Date Stop:				
Time Start: Time Stop:				
Device No.'s:				
Date Start: Date Stop:				
Time Start: Time Stop:				
Device No.'s:				

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

February 28, 2020

**** 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
9341725	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 ± 1.6	2020-02-26
9341730	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.1 ± 1.6	2020-02-26
9341728	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 ± 1.6	2020-02-26
9341726	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.8 ± 1.5	2020-02-26
9341731	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.1 ± 1.5	2020-02-26
9341729	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.2 ± 1.6	2020-02-26
9341727	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.2 ± 1.6	2020-02-26
9341732	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.3 ± 1.6	2020-02-26


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Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 1 Retesting

Name of Schools:

- 1. Belmont E.S.
- 2. Clarksburg H.S.
- 3. Damascus E.S.
- 4. Damascus H.S.
- 5. DuFief E.S.
- 6. Fields Road E.S.
- 7. Gaithersburg E.S.
- 8. McAuliffe E.S.
- 9. Quince Orchard H.S.
- 10. Snowden Farms E.S.
- 11. South Lake E.S.
- 12. Stone Mill E.S.
- 13. Travilah ES
- 14. Watkins Mill ES
- 15. Whitman H.S.

	Date	Initials
Radon Test Kits Deployed	02/03/20 to 02/04/20	m
Radon Test Kits Collected	02/06/20 to 02/07/20	M
Radon Test Kits Shipped to Lab*	02/07/20	Low
Radon Test Kits Received by Lab*	02/10/20	Xm

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



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Site Name	Stone Mill Elementary School
Date of Report	1/28/2020
Round of Testing	Initial Follow-up Post Remediation 2 year testing 5 year testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested	45
# Rooms ≥4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.7 pCi/L

MCPS RADON TESTING - EXECUTIVE SUMMARY

Project Status

Current Project Status at this time: Testing Complete; missing/compromised tests to be sampled.



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1/28/2020

Mr. Richard Cox, MS Environmental Team Leader Montgomery County Public Schools Division of Maintenance Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #12146341126

Location: Stone Mill Elementary School 14323 Stonebridge View Drive North Potomac, Maryland 20878

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Stone Mill Elementary School, located at 14323 Stonebridge View Drive in North Potomac, Maryland 20878 (subject site).

SCOPE OF SERVICES

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Proficiency Program (NRPP) Radon Measurement Specialist (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from https://www.montgomeryschoolsmd.org/departments/facilities/maintenance/default.aspx?id=458858 or www.epa.gov/radon.

KCI visited the site on 12/10/2019 and deployed sixty-one (61) 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 Appendix 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 sixty (60) 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.

KCI returned to the site on 12/13/2019 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a NRSB certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

• Follow-up to initial testing.

These tests were conducted to:

• Evaluate radon concentrations at the facility.

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

KCI recorded observations of the following conditions in each room 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.

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 upper-30s and high temperatures ranged from the upper-30s to the mid-50s. Maximum sustained winds ranged from 7-21 miles per hour. Average humidity was around 75%. 0.52 inches of precipitation (rain) was recorded during the testing period.

RESULTS

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	None	N/A
≤4.0 piC/L	See Attachment 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 measurement precision was achieved.		
Spike Sample Analysis: The Spike sample analysis results indicate the laboratory is operating with 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 410-316-7800.

Sincerely,

Mr. Tyler P. McCleaf Radon Measurement Provider 111004 RT

KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 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 Chek, Inc.
- D- Duplicate
- FB- Field Blank
- KCI- KCI Technologies, Inc.
- **OB- Office Blank**
- PM- Project Manager
- QC- Quality Control

Table 1- Radon Testing Results			
Stone Mill Elementary School			
	Test Period: 12/9/2019-12/12/2019		
Kit Number	Room / Area	Result	
9334414	CONFERENCE ROOM	< 0.3	
9334421	PRINCIPALS OFFICE	< 0.3	
9334423	CLASSROOM 2	0.6	
9334428		< 0.3	
9334429	WORK ROOM	< 0.3	
9334438	CLASSROOM 4	< 0.3	
9334439	TELEPHONE	< 0.3	
9334440	MAIN OFFICE	< 0.3	
9334441	HEALTH SUITE	< 0.3	
9334442	MAIN OFFICE WAITING	< 0.3	
9334443	CLASSBOOM 7	< 0.3	
033////		< 0.3	
0224444		< 0.3	
9334443		< 0.3	
9334440		< 0.3	
9334447		< 0.3	
9334449		< 0.3	
9334450	CLASSROUM	< 0.3	
9334451	CLASSROOM 23	< 0.3	
9334452	CLASSROOM 23	< 0.3	
9334453	OFFICE	< 0.3	
9334454	COMPUTER OFFICE	< 0.3	
9334455	MEDIA CENTER	< 0.3	
9334456	MEDIA CENTER	< 0.3	
9334457	OFFICE	0.7	
9334458	OFFICE	< 0.3	
9334459	CLASSROOM 11	< 0.3	
9334460	CLASSROOM 21	< 0.3	
9334461	CLASSROOM 10	< 0.3	
9334462	CLASSROOM 13	< 0.3	
9334463	MATERIAL PREP	< 0.3	
9334464	MATH LAB	< 0.3	
9334465	CLASSROOM 18	< 0.3	
9334466	CLASSROOM 19	< 0.3	
9334467	CLASSROOM 17	< 0.3	
9334468	CLASSROOM 15 COMMUNICATION	< 0.3	
9334469	ROOM 20 TEACHERS LOUNGE	< 0.3	
9334470	CLASSROOM 8	< 0.3	
9334471	CLASSROOM 12	< 0.3	
9334472	CLASSROOM 12	< 0.3	
9334473	CLASSROOM 9	< 0.3	
9334474	CLASSROOM 16	< 0.3	
9334475	GYM	< 0.3	
9334476	GYM OFFICE	< 0.3	
9334478	GYM	< 0.3	
9334479	INSTRUMENTAL MUSIC	< 0.3	
9334480	MULTIPURPOSE ROOM	< 0.3	
9334481	CLASSROOM 24	0.6	
9334482	GYM	< 0.3	
9334483		< 0.3	
9334484	BUILDING SERVICES OFFICE	< 0.3	
0004404		- 0.0	

9334485	CLASSROOM 34	< 0.3
9334486	CLASSROOM 29	< 0.3
9334487	MULTIPURPOSE ROOM	< 0.3
9334488	MULTIPURPOSE ROOM	< 0.3
9334489	MULTIPURPOSE ROOM	< 0.3
9334490	MULTIPURPOSE ROOM	< 0.3
9334492	CLASSROOM 24	< 0.3
9334493	CLASSROOM 24	0.7
9334494	COUNSELORS OFFICE	< 0.3
9334994	OFFICE BLANK	< 0.3
9334448	CLASSROOM 15	MISSING

Table 2- Radon Testing Results				
	Stone Mill Elementary School			
	Test Period: 12/9	/2019-12/12/2019		
Kit Number	QC Type	Room / Area	Result	
9334450	D	CLASSROOM 1	<0.3	
9334458	D	OFFICE	<0.3	
9334453	FB	OFFICE	<0.3	
9334471	D	CLASSROOM 12	<0.3	
9334452	D	CLASSROOM 23	<0.3	
9334451	FB	CLASSROOM 23	<0.3	
9334480	D	MULTIPURPOSE ROOM	<0.3	
9334493	D	CLASSROOM 24	0.7	
9334492	FB	CLASSROOM 24	<0.3	
9334850	TRANSIT BLANK	NA	< 0.3	
9334914	TRANSIT BLANK	NA	< 0.3	
9334916	TRANSIT BLANK	NA	< 0.3	
9334963	TRANSIT BLANK	NA	< 0.3	

Summary of Missed Locations		
Stor	ne Mill Elementary School	
Test Period: 12/10/2019 - 12/13/2019		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests			
Stone Mill Elementary School			
Te	st Period: 12/10/2019-12/13/2019		
Kit Number	Room/Area	Result	
9334448	*15	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: STONE MILL ES MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9334484	BUILDING SERVICES OFFICE	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334450	CLASSROOM 1	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334446	CLASSROOM 1	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334461	CLASSROOM 10	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334459	CLASSROOM 11	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334472	CLASSROOM 12	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334471	CLASSROOM 12	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334462	CLASSROOM 13	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334448	CLASSROOM 15	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	???? UI	2019-12-16
9334468	CLASSROOM 15 COMMUNICATION	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334474	CLASSROOM 16	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334467	CLASSROOM 17	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334465	CLASSROOM 18	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334466	CLASSROOM 19	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334423	CLASSROOM 2	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	0.6 ± 0.3	2019-12-17
9334460	CLASSROOM 21	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334447	CLASSROOM 23	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334451	CLASSROOM 23	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334452	CLASSROOM 23	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334481	CLASSROOM 24	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	0.6 ± 0.3	2019-12-17
9334492	CLASSROOM 24	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334493	CLASSROOM 24	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	0.7 ± 0.3	2019-12-17
9334486	CLASSROOM 29	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334449	CLASSROOM 3	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334485	CLASSROOM 34	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334438	CLASSROOM 4	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334444	CLASSROOM 5	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334445	CLASSROOM 6	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334470	CLASSROOM 8	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334454	COMPUTER OFFICE	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334414	CONFERENCE ROOM	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334494	COUNSELORS OFFICE	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334475	GYM	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334482	GYM	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334478	GYM	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334476	GYM OFFICE	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334428	HEALTH OFFICE	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17

Radon test result report for: STONE MILL ES MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9334441	HEALTH SUITE	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334479	INSTRUMENTAL MUSIC	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334440	MAIN OFFICE	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334442	MAIN OFFICE WAITING	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334463	MATERIAL PREP	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334464	MATH LAB	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334455	MEDIA CENTER	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334456	MEDIA CENTER	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334489	MULTIPURPOSE ROOM	2019-12-10 @ 11:00 am	2019-12-13 @ 12:00 pm	< 0.3	2019-12-16
9334487	MULTIPURPOSE ROOM	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334480	MULTIPURPOSE ROOM	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334490	MULTIPURPOSE ROOM	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334488	MULTIPURPOSE ROOM	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334457	OFFICE	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	0.7 ± 0.3	2019-12-17
9334453	OFFICE	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334458	OFFICE	2019-12-10 @ 9:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334421	PRINCIPALS OFFICE	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334469	ROOM 20 TEACHERS LOUNGE	2019-12-10 @ 10:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334483	SPEECH OFFICE	2019-12-10 @ 11:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-16
9334439	TELEPHONE	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17
9334429	WORK ROOM	2019-12-10 @ 8:00 am	2019-12-13 @ 11:00 am	< 0.3	2019-12-17

EXPOSURE IN BOWSER-N	10RNER RADON CHAMBER
CLIENT KCI Technologi	es Inc. Job Number 193475
NOMINAL Conditions: Radon Conc 25.7	pCi/L Rel. Hum 74.6 % Temp. 69.9 F
Date Start: 12/13/19 Date Stop: 12/16/19	Date Start: Date Stop:
Time Start: 0806 Time Stop: 0806 (Group 1) Device No.'s: (20) Chan. Bags-	Time Start: Time Stop: Device No.'s:
9334502 thro 9334510, 9334314, 9334316, 9334517, 19334519, 9334519 9334522 thro 9334528 By	
Date Start: $12 13 19$ Date Stop: $12 16 19$ 0811 Time Start: 080 acmTime Stop: 0811	Date Start: Date Stop: Time Start: Time Stop:
(Group 2) Device No.'s: (20) Char. Bays-	Device No.'s:
9334529 thro 9334538, 9334549, 9334542 thro 9334550	
8 3	
Date Start: 12/13/19 Date Stop: 12/16/19	Date Start: Date Stop:
Time Start: 0816 Time Stop: 0816	Time Start: Time Stop:
(Gray 3) Device No.'s: (20) Char. Bags. 9334551, 9334552, 9334562,	Device No.'s:
<u>9334335 4hno 9334559</u> 9334369, 9334576, 9334579	
9334580, 9334583, 9334584 9334591, 9334593, 9334594	۲
<u>9334397, 9334598, 9334599</u> BA	

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

December 18, 2019

**** 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
9334583	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.3 ± 1.4	2019-12-18
9334529	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.3 ± 1.5	2019-12-18
9334597	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.8 ± 1.4	2019-12-18
9334534	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.3 ± 1.4	2019-12-18
9334540	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.9 ± 1.4	2019-12-18
9334546	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.9 ± 1.5	2019-12-18
9334551	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.3 ± 1.4	2019-12-18
9334558	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.6 ± 1.4	2019-12-18
9334579	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.6 ± 1.4	2019-12-18
9334593	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.3 ± 1.4	2019-12-18
9334532	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.6 ± 1.4	2019-12-18
9334537	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.8 ± 1.4	2019-12-18
9334544	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.5 ± 1.4	2019-12-18
9334549	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.4 ± 1.5	2019-12-18
9334556	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.1 ± 1.4	2019-12-18
9334569	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.7 ± 1.4	2019-12-18
9334584	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.4 ± 1.5	2019-12-18
9334530	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.6 ± 1.4	2019-12-18
9334598	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.7 ± 1.4	2019-12-18
9334535	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.0 ± 1.4	2019-12-18
9334542	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.7 ± 1.4	2019-12-18
9334547	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	25.2 ± 1.5	2019-12-18
9334552	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.2 ± 1.4	2019-12-18
9334559	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.1 ± 1.4	2019-12-18
9334580	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.1 ± 1.4	2019-12-18
9334594	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.1 ± 1.4	2019-12-18
9334533	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.3 ± 1.5	2019-12-18
9334538	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.6 ± 1.5	2019-12-18
9334545	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.0 ± 1.4	2019-12-18
9334550	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.1 ± 1.4	2019-12-18
9334557	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.6 ± 1.5	2019-12-18
9334576	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.3 ± 1.4	2019-12-18
9334591	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.7 ± 1.4	2019-12-18
9334531	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.3 ± 1.5	2019-12-18
9334599	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.8 ± 1.4	2019-12-18
9334536	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.4 ± 1.5	2019-12-18
9334543	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.4 ± 1.5	2019-12-18

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

N/A

Kit # J	Room Id	Started	Ended	pCi/L	Analyzed
9334548	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.0 ± 1.4	2019-12-18
9334555	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.4 ± 1.4	2019-12-18
9334562	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.5 ± 1.4	2019-12-18

 $\frac{\text{Radon test result report for:}}{S}$

N/A

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9334505	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.5 ± 1.5	2019-12-18
9334510	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.4 ± 1.5	2019-12-18
9334522	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.9 ± 1.4	2019-12-18
9334527	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	22.6 ± 1.4	2019-12-18
9334503	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.6 ± 1.4	2019-12-18
9334508	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.7 ± 1.5	2019-12-18
9334517	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.5 ± 1.4	2019-12-18
9334525	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.8 ± 1.4	2019-12-18
9334506	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.3 ± 1.5	2019-12-18
9334514	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.5 ± 1.5	2019-12-18
9334523	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.6 ± 1.4	2019-12-18
9334528	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.8 ± 1.4	2019-12-18
9334504	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.8 ± 1.4	2019-12-18
9334509	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.5 ± 1.4	2019-12-18
9334519	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.1 ± 1.4	2019-12-18
9334526	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.3 ± 1.4	2019-12-18
9334502	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	23.7 ± 1.4	2019-12-18
9334507	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.7 ± 1.5	2019-12-18
9334516	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	22.2 ± 1.3	2019-12-18
9334524	N/A	2019-12-13 @ 8:00 am	2019-12-16 @ 8:00 am	24.6 ± 1.5	2019-12-18



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 2019 Week 1

Name of Schools:

- 1. Baker M.S.
- 2. Belmont E.S.
- 3. Clarksburg E.S.
- 4. Clarksburg H.S.
- 5. Clearspring E.S.
- 6. Damascus E.S.
- 7. Damascus H.S.
- 8. Dufief E.S.
- 9. Fields Road E.S.
- 10. Gaithersburg E.S.
- 11. Germantown E.S.
- 12. Great Seneca Creek E.S.

- 13. Jones Lane E.S.
- 14. Lake Seneca E.S.
- 15. McAuliffe E.S.
- 16. Quince Orchard H.S.
- 17. Rosa Parks M.S.
- 18. Snowden Farm E.S.
- 19. South Lake E.S.
- 20. Stone Mill E.S.
- 21. Travilah E.S.
- 22. Watkins Mill E.S.
- 23. Watkins Mill H.S.
- 24. Whitman H.S.

	Date	Initials
Radon Test Kits Deployed	12/09/19 to 12/10/19	TM
Radon Test Kits Collected	12/12/19 to 12/13/19	m
Radon Test Kits Shipped to Lab*	12/13/19	Th
Radon Test Kits Received by Lab*	12/16/19	im

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

14323 Stonebridge View Drive, North Potomac, Maryland 20878

Date of Test Report:	4/1/16 Follow-Up	
Round of Testing:	Initial	
	Follow-up	
	Post Remediation	
# Rooms Tested	2	
# Rooms <u>≥</u> 4.0 pCi/L:	0	
Low Value:	<0.4	
High Value:	<0.4	
Confirmed Rooms ≥ 4.0 pCi/L US EPA	0	
Action Level		

EXECUTIVE SUMMARY

Summary of Sampling Events ≥ 4.0 pCi/L

Room	Result (pCi/L) 2/29/16 Initial	Result (pCi/L) 4/1/16 Follow-Up	Average Result (pCi/L)
CR10	Missing	<0.4	<0.4
TL	Missing	<0.4	<0.4



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

MCPS RADON TESTING

Executive Summary: Stone Mill Elementary School

Date of Test Report:	4/1/2016
Round of Testing:	Initial
(Follow-up
	Post Remediation
# Rooms Tested:	2
# 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.



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April 1, 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 # 12146341.31
Location:	Stone Mill Elementary School
	14323 Stonebridge View Drive
	North Potomac, MD 20878

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 Stone Mill Elementary School, located at 14323 Stonebridge View Drive in North Potomac, Maryland 20878 (subject site).

Scope of Services:

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon 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 or www.epa.gov/radon.

KCI visited the site on March 8, 2016 and deployed two (2) 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 March 11, 2016 to retrieve the radon sampling test kits. KCI 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 (certification # ARL0007) located at 929 Mount

Zion Road, Lebanon, Pennsylvania.

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:

Radon Concentration	Room	Result
≥4.0 piC/L	none	n/a
<4.0 piC/L	See Attachn	nent 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 (410) 316-7800.

Mr. Richard Cox April 1, 2016 Page 4

Sincerely,

James Makler

James M. Moulsdale 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 11 testing. Office blanks were not submitted under each school individually.

Radon Testing Results					
ES					
/16-03/11/16					
Kit Number Room / Area Result					
3029012 CR-10 <0.4					
3029013 TL <0.4					
/					

ATTACHMENT C

Laboratory Analytical Results



NRPP 10511AL

NRSB ARL0007

Radon in Air

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

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies	Stone Mill ES		
936 Ridgebrook Rd	14323 Stonebridge View Dr		
Sparks MD 21152	North Potomac MD 20878		

Log Number	Device Number	Test Exposu	re Duration:	Area Tested	Result (pCi/L)
3016784	3029013	03/08/2016 1:59 pm	03/11/2016 11:29 a	m Unit TL Teachers Lounge	<0.4
3016785	3029012	03/08/2016 2:04 pm	03/11/2016 11:31 a	m Unit CR-10	<0.4

Comment: A copy of this report was emailed to tehsin@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 03/15/2016 Date Logged:

.ogged: 03/15/2016

Date Analyzed: 03/16/2016 Date F

Date Reported: 03/16/2016

Disclaimer:

Report Reviewed By: ____

Ang Kartin Report Approved By: Curly A hohe Carolyn D. Koke, President, 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.

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AccuStar Labs	11 Awl Street	Medway MA 02053
Acro Ctor	しつつうううく	Profossional Radon Laboratory Services Since 1984

Radon Device Type Open Face Canister 888-480-8812 www.accustarlabs.com

Send Written Report To:

Site Tested:

Name	KCI Technologies, Inc	Site Name	Strine Mill FS
Address	936 Ridgebrook Road	Address	14333 Shacbridger New Dr
Address		Address	the second s
City / Town	Sparks	City / Town	North Potemac
State/Province	Postal Code MD 21152	State/Province	Postal Code MD
Report Countr	y Baltimore County	Test Country	Montgomery County
Email Address	s tehsin@kci.com	Project Numbe	r 12146341

Contact Information:

Contact	Tehsin Aurangabadwala
Telephone	410-891-1726
Technician	
Cert. Number	
Signature	

Lab Use Only						
Stop Time	bC;]]	[;3				
Stop Date	03/11/2016	03/11/2016				
Start Time	13:59	19:04				
Start Date	03/06/2016	03/0約/2016	7			
Name of Room	Teachers Leunar 73	5C C				
Floor		×.				
Unit Number	71	CR-10				
Building Number						
Device Number	3029013	3029012				
Lab Use Only						

Test must start before the expiration date shown on your device or test results will be invalid



Laboratory Report for:

NRPP 10511AL

NRSB ARL0007

Radon in Air

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

Property Tested: Project # 12146341

MCPS Radon Phase 11 Office Blank

KCI Technologies 936 Ridgebrook Rd Sparks MD 21152

Log Number	Device Number	Test Exposur	e Duration:		Area Tested	Resul	t (pCi/L)
3016739	3029191	03/08/2016 10:00 am	03/11/2016	10:00 am	Office Blank		<0.4

Comment: A copy of this report was emailed to tehsin@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 03/15/2016 Date Logged:

ogged: 03/15/2016

Date Analyzed: 03/15/2016 Date Reporte

Date Reported: 03/16/2016

Disclaimer:

Report Reviewed By: ___ effry Cartin

Report Approved By: ______ Report Approved By: ______ Carolyn D. Koke, President, 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.

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Professional Radon Lab	Send Writte	Name	Address	Address	City / Town	State/Provin	Report Cour	Email Addre	Lab Use Only						

Test must start before the expiration date shown on your device or test results will be invalid

Rev E1512

1 of 1



Radon in Air

				EPA Method #402-R-92-004
NRPP 10	0511AL			Charcoal Canister
NRSB A	RL0007			NRPP Device Code 6048
				NRSB Device Code 10317
Labora	atory Report	for:	Property Tested:	
		!	MORO	
ł		ogies	MCP5	
ę	936 Ridgebro	ook Rd	Transit Blanks	
5	Sparks MD	21152		
Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3010588	3028053	01/10/2016 1.00 pm $01/22/2016$ 9.30	am 1	< 0.4

Turnbol	Hambol				
3010588	3028953	01/19/2016 1:00 pm	01/22/2016 9:30 am	1	<
3010589	3028955	01/19/2016 1:00 pm	01/22/2016 9:30 am	2	<
3010590	3028954	01/19/2016 1:00 pm	01/22/2016 9:30 am	3	<
3010591	3028997	01/19/2016 1:00 pm	01/22/2016 9:30 am	4	<

Comment: AMENDED REPORT for 3028953-8955, 3028997 on 2/22/16 to add all missing information from the blank datasheet. A copy of this report was emailed to james.moulsdale@kci.com.

Distributed by: KCI Technologies, Inc. Date Received: 01/27/2016 Date Logged: 01/27/2016 Date Analyzed: 01/28/2016 Date Reported: 01/28/2016 Report Reviewed By: Cruese Bates Report Approved By: Cruely D. Koke

Disclaimer:

Carolyn D. Koke, President, 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.

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6-42
TCS INDUSTRIES, INC.

(717) 657-7032

RADON GAS DETECTION

www.radondetek.com

4326 Crestview Road, Harrisburg, PA 17112

James Moulsdale KCI 936 Ridgebrook Rd. Sparks, MD 21152 April 04, 2016

Dear Mr. Moulsdale:

The spike exposure data were:

Start 04/04/16 @ 1110 hrs EDT End 04/06/16 @ 1113 hrs EDT

AC 3029218, 3029219, 3029220, 3029217, 3029214, 3029217, and 3029166

Average radon concentration was 10.6 pCi/L +/- 5%

Avg, Temp. was 71FAvg. RHwas 51%Elevationwas 490 feet above sea level

Sincerely,

Cut

Carl H. Distenfeld, CHP



NRPP 10511AL NRSB ARL0007

Laboratory Report for:

KCI Technologies

936 Ridgebrook Rd Sparks MD 21152 EPA Method #402-R-92-004 Charcoal Canister NRPP Device Code 6048 NRSB Device Code 10317

Property Tested:

MCPS Radon Spike Sample Laboratory Results

Log Number	Number	Test Exposur	e Duration:	Area Tested	Result (pCi/L)
3020102	3029166	04/04/2016 11:10 am	04/06/2016 11:1	3 am Not Indicated	11.9
3020103	3029214	04/04/2016 11:10 am	04/06/2016 11:1	3 am Not Indicated	11.5
3020104	3029217	04/04/2016 11:10 am	04/06/2016 11:1	3 am Not Indicated	10.7
3020105	3029218	04/04/2016 11:10 am	04/06/2016 11:1	3 am Not Indicated	11.3
3020106	3029219	04/04/2016 11:10 am	04/06/2016 11:1	3 am Not Indicated	11.0
3020107	3029220	04/04/2016 11:10 am	04/06/2016 11:1	3 am Not Indicated	10.5

Comment: A copy of this report was emailed to james.moulsdale@kci.com.

Distributed by: KCI Technolo	gies, Inc.					
Date Received: 04/07/2016	Date Logged:	04/07/2016	Date Analyzed:	04/07/2016	Date Reported:	04/08/2016
Note: Spike samples are test canisters t They provide a quality control measur tested.	hat are deliberately exp e in the testing process	osed to a controlled h and do NOT reflect ra	igh level of radon in a lat Idon levels in the buildin	boratory. g being		
Report Review Disclaimer: The uncertainty of this radon measu concentrations, sample collection ter	red By:	Factors contributing	Report Approv	ed By: Carolyn statistical variatio ditions may influ	D. Koke, President, Ad ns, daily and seasonal ence the test results.	ccuStar Labs variations in radon

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PO BOX 990 Jonestown PA 17038 717-274-8310

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Test must start before the expiration date shown on your device or test results will be invalid

1 of 1

Rev E1512



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

MCPS RADON TESTING

Executive Summary: Stone Mill Elementary School

Date of Test Report:	2/29/2016
Round of Testing:	Initial
-	Follow-up
	Post Remediation
# Rooms Tested:	45
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.2

Project Status: Initial testing completed; missing or compromised samples need re-test.



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

February 29, 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 # 12146341.26				
Location:	Stone Mill Elementary School				
	14323 Stonebridge View Drive				
	North Potomac, MD 20878				

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 Stone Mill Elementary School, located at 14323 Stonebridge View Drive in North Potomac, Maryland 20878 (subject site).

Scope of Services:

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon 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 or www.epa.gov/radon.

KCI visited the site on February 1, 2016 and deployed fifty-nine (59) 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 4, 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:

Radon Concentration	Room	Result	
≥4.0 piC/L	none	n/a	
<4.0 piC/L	See Attachn	nent B	

Notes:

D- Duplicate sample

The 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.

Mr. Richard Cox February 29, 2016 Page 4

Sincerely,

James Makler

James M. Moulsdale 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						
Stone Mill Elementary School						
Test Period: 02/01/16-02/04/16						
Kit Number	Room / Area	Result				
7732675	ASSIST. PRIN. OF	0.8				
7732618	BSO	1.1				
7732660	COUNSELOR OFFICE	< 0.3				
7732677	CR1	< 0.3				
7732647 *	CR10 (Missing)	-				
7732671	CR11	< 0.3				
7732668	CR12	< 0.3				
7732630	CR13	< 0.3				
7732640	CR14	0.8				
7732633	CR15	< 0.3				
7732639	CR16	0.9				
7732636	CR17	1.2				
7732619	CR18	1.1				
7732631	CR19	0.9				
7732620	CR21	0.9				
7732627	CR23	< 0.3				
7732625	CR29	0.8				
7732676	CR3	< 0.3				
7732621	CR31	0.7				
7732655	CR32	0.6				
7732665	CR34	0.9				
7732679	CR35	0.8				
7732649	CR5	0.6				
7732645	CR6	0.8				
7732648	CR7	0.6				
7732651	CR8	< 0.3				
7732644	CR9	0.7				
7732650	DUAL PURPOSE	1.2				
7732615	GYM	< 0.3				
7732617	GYM	< 0.3				
7732628	GYM	0.8				
7732629	GYM	0.8				
7732659	GYM OFFICE	0.7				
7732682	HEALTH RM	0.6				
7732641	IMC	0.9				
7732663	IMC	0.9				
7732638		1				
7732642		0.8				
7732680		< 0.3				
7732678		0.0				
7732643		0.0 0 Q				
7732652	ΜΔΤΗ	0.9				
7732616	MPR	0.7				
7732632	MPR	0.0				
7732657		1 2				
7732661		0.5				
		0.0				

Radon Testing Results								
	Stone Mill Elementary School							
	Test Period: 02/01/16-02/04/16							
Kit Number	Room / Area	Result						
7732666	PRINCIPAL OFFICE	< 0.3						
7732623	PV	0.7						
7732656	* TL (Missing)	-						
7732681	WORK RM	< 0.3						

Radon Testing Results Stone Mill Elementary School					
	Test Period: 02/01/16-02/04/16				
Kit Number	QC Туре	Result			
7732672	D (BSO)	0.7			
7732662	D (CR11)	< 0.3			
7732646	D (MATH)	0.8			
7732658	D (OFFICE WORK RM)	0.6			
7732634	D (TL)	< 0.3			
7732667	FB (CR12)	< 0.3			
7732653	FB (MATH)	< 0.3			
7732664	FB (TL)	< 0.3			
7732247	OB (0)	< 0.3			

ATTACHMENT C

Laboratory Analytical Results

February LABORATORY ANALYSIS 23, REPORT **

Radon test result report for: STONE MILL ELEMENTARY SCHOOL MAIN

Kit #	Room Id	Started		Ended	pCi/L	Analyzed
7732247	0	2016-02-01	@ 5:00 pm	2016-02-04 @ 12:00 pm	< 0.3	2016-02-09
7732675	ASSIST. PRIN. OF	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7732618	BSO	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	1.1 ± 0.3	2016-02-08
7732672	BSO	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7732660	COUNSELOR OFFICE	2016-02-01	@ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732677	CR1	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-08
7732647	CR10	@		@		
7732671	CR11	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-08
7732662	CR11	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732668	CR12	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-08
7732667	CR12	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732630	CR13	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-08
7732640	CR14	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7732633	CR15	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732639	CR16	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7732636	CR17	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	1.2 ± 0.4	2016-02-09
7732619	CR18	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	1.1 ± 0.3	2016-02-08
7732631	CR19	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.3	2016-02-08
7732620	CR21	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-08
7732627	CR23	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732625	CR29	2016-02-01	@ 12:00 pm	2016-02-04 @ 8:00 am	0.8 ± 0.3	2016-02-08
7732676	CR3	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7732621	CR31	2016-02-01	@ 12:00 pm	2016-02-04 @ 8:00 am	0.7 ± 0.3	2016-02-08
7732655	CR32	2016-02-01	@ 12:00 pm	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7732665	CR34	2016-02-01	@ 12:00 pm	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7732679	CR35	2016-02-01	@ 12:00 pm	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7732649	CR5	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	0.6 ± 0.4	2016-02-09
7732645	CR6	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.3	2016-02-08
7732648	CR7	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	0.6 ± 0.3	2016-02-08
7732651	CR8	2016-02-01	@ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732644	CR9	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.3	2016-02-08
7732650	DUAL PURPOSE	2016-02-01	@ 10:00 am	2016-02-04 @ 7:00 am	1.2 ± 0.4	2016-02-09
7732617	GYM	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-08
7732615	GYM	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732628	GYM	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7732629	GYM	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7732659	GYM OFFICE	2016-02-01	@ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09

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

February LABORATORY ANALYSIS 23, REPORT **

Radon test result report for: STONE MILL ELEMENTARY SCHOOL MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7732682	HEALTH RM	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.6 ± 0.4	2016-02-09
7732641	IMC	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.9 ± 0.4	2016-02-09
7732663	IMC	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.9 ± 0.4	2016-02-09
7732638	IMC COMPUTER	2016-02-01 @ 11:00 am	2016-02-04 @ 7:00 am	1.0 ± 0.4	2016-02-09
7732642	IMC OFFICE	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7732680	INSTR MUSIC	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7732678	MAIN OFFICE	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.3	2016-02-08
7732643	MATERIAL PREP	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7732646	MATH	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7732652	MATH	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.3	2016-02-09
7732653	MATH	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7732632	MPR	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7732616	MPR	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7732657	MUSIC RM	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	1.2 ± 0.4	2016-02-09
7732661	NURSES OFFICE	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.5 ± 0.4	2016-02-09
7732658	OFFICE WORK RM	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	0.6 ± 0.4	2016-02-09
7732666	PRINCIPAL OFFICE	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7732623	PV	2016-02-01 @ 12:00 pm	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7732656	TL	@	@		
7732634	TL	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-08
7732664	TL	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-08
7732681	WORK RM	2016-02-01 @ 10:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09

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February LABORATORY ANALYSIS 23, REPORT **

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

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February LABORATORY ANALYSIS 15, 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 Technologie	5 Inc. Job Number 173704
NOMINAL Conditions: Radon Conc 5.9	pCi/L Rel. Hum <u>45.9</u> % Temp. <u>79.0</u>
Date Start: 1/30/16 Date Stop: 2/1/16	Date Start: Date Stop:
Time Start: <u>9926</u> Time Stop: <u>996</u>	Time Start: Time Stop:
Device No.'s: (6) Char. Bago-	Device No.'s:
, ופבצורר, בוצבצורר אוצבצורר	
7718288, 7718289, 7718273	
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 μR/h Elevation = 820 ft



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Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 7 (2-1-2016)

Name of School/Facility:

1.	Wyngate E.S.	10. Bethesda Depot	18. Stone Mill E.S.
2.	Seven Locks E.S.	11. Bethesda Trans Depot	19. Strawberry Knoll E.S.
3.	Takoma Park M.S.	12. Sligo M.S.	20. Shady Grove M.S.
4.	Somerset E.S.	13. Stonegate E.S.	21. Washington Grove E.S.
5.	Silver Spring Int. M.S.	14. Randolph Transportation	22. Sherwood E.S.
6.	Sligo Creek E.S.	15. Earl B. Wood M.S.	23. Woodfield E.S.
7.	Tilden M.S.	16. Sargent Shriver E.S.	24. Taylor Learning Center
8.	Tilden Center	17. Thomas Wooten H.S.	25. Kingsley Wilderness

9. Bethesda Annex

	Date	Initials
Radon Test Kits Deployed	2/1/16	M
Radon Test Kits Collected	2/4/16	JM
Radon Test Kits Shipped to Lab*	2/4/16	JUM
Radon Test Kits Received by Lab*	2/8/16	JM

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



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Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 7 (2-2-2016)

Name of School/Facility:

- 1. Concord Center
- 2. Lynnbrook Center
- 3. Carver (CESC)
- 4. Spring Mill (area 1 Office)
- 5. Wheaton H.S
- 6. Montrose Center
- 7. West Farm Trans Depot

- 8. Food & Nutritional Services
- 9. Fairland Center
- 10. Redland M.S. (retest)
- 11. Clarksburg Trans Depot
- 12. Clarksburg Main Depot
- 13. Clarksburg E.S.

	Date	Initials
Radon Test Kits Deployed	2/2/16	1M
Radon Test Kits Collected	2/5/16	ÎM
Radon Test Kits Shipped to Lab*	2/5/16	Ĵμ
Radon Test Kits Received by Lab*	2/9/16	JA

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