School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Poolesville Elementary School
Address:	19565 Fisher Ave.
	Poolesville, MD 20837
Reason for Testing:	Scheduled Re-Testing - ☒ 2-year or ☐ 5-year schedule ☐ Clearance Testing (Post-Mitigation) ☐ Building Envelope or HVAC Upgrades ☐ New Construction – Addition or Facility
Current Radon Status:	☒ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule) ☐ Not Previously Tested (New Facility)
Round of Testing:	☒ Initial Testing **-or-** ☐ 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 ☐ Required (≥4.0-pCi/L) Rooms:	☒ No Change in Status ☐ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	52	Lowest Value (pCi/L)	<0.3
Number of Rooms (≥4.0-pCi/L)	0	Highest Value (pCi/L)	1.5

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.

MCPS DEM SUSTAINABILITY & COMPLIANCE

School / Facility Radon Testing Report Form

Detector and Deployment

Detector/Device Type:	☒ Passive ☐ Continuous	☒ Charcoal Absorption (CAD) ☐ Alpha Track (ATD) ☐ Other ☐ Electret ion Chamber (EIC) ☐ Electronic Integration (EID)
	Other–Specify here:	
Detector/Device Name:	Air Chek – Radon Test Kits	
Manufacturer:	Radon Labs	

Person(s) Deploying or Retrieving Test Devices and certification number	Organization/Company
Tyler McCleaf, CSP Cert. # 111004-RMP	KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -	

Testing

☒ Short-Term ☐ Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	3/4/2025 3/7/2025
Does the test period include weekends, school breaks or holidays?				☐ Yes ☒ No
*If "**Yes**" please explain/detail in the space below:*				
Was HVAC operating under occupied conditions?				☒ Yes ☐ No
*If "**No**" please explain/detail in the space below:*				

Testing (continued)

	Detectors Deployed				
	Ground-Contact		Upper-Level(s)		Total
Round of Testing	Initial	Follow-Up	Initial	Follow-Up	
Test Locations[1]	52	0	0	0	52
Duplicates[2]	5	0	0	0	5
Field Blanks[3]	2	0	0	0	2
				Grand Total	59

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.

	QA/QC Samples		Total
Round of Testing	Initial	Follow-Up	
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 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 ± 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?	☒ Yes ☐ No	
Round of Testing	**Initial**	**Follow-Up**
All Field, Trip and Office Blanks are **≤** (less than or equal to) to the Method Detection Limit?	☒ Yes ☐ No	☐ Yes ☒ No
For all Duplicate Samples[1], the higher value is **≤ 2x** the lower value?	☒ Yes ☐ No	☐ Yes ☒ No
For all Duplicate Samples[1], Relative Percent Difference(s) (RPD)[2] are less than the Warning Level[3]?	☒ Yes ☐ No	☐ Yes ☒ No
For all Duplicate Samples[1], Relative Percent Difference(s) (RPD)[2] are less than the Control Level[3]?	☒ Yes ☐ No	☐ Yes ☒ 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

MCPS DEM SUSTAINABILITY & COMPLIANCE

School / Facility Radon Testing Report Form

Summary of Test Results[1] and Determination of Valid Measurements[2]

	Ground-Contact		Upper-Level(s)		Total
Round of Testing	**Initial**	**Follow-Up**	**Initial**	**Follow-Up**	
Number of test locations:	52	0	0	0	52
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

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 ≥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;

5 – 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.

Summary of Test Results[1] and Determination of Valid Measurements[2] (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?	☒ Yes ☐ No	☐ Yes ☒ 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?	☒ Yes ☐ No	☐ Yes ☒ 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** were sufficient valid measurements obtained?[1,2] ***If Yes,** then - '**No Further Testing Needed**' complete Conclusion section on first page.* ***If No**, then - '**Follow-up Testing Required**' continue below.*	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ 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 ≥ 4.0-pCi/L	Deploy two Short-term follow-up tests and required blanks and duplicates; Average the results of the two tests	≥4.0	Mitigation Required
Failed QC checks		≥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		
Poolesville Elementary School		
Test Period: 3/3/2025 - 3/6/2025		
Kit Number	Room / Area	Result
11927070	1	< 0.3
11927075	2	< 0.3
11927076	3	< 0.3
11927077	4	0.5
11931179	5	< 0.3
11931193	5	< 0.3
11931198	6	< 0.3
11926795	7	< 0.3
11926796	8	< 0.3
11931184	10	0.7
11931186	11	0.6
11931185	12	0.5
11927049	13	0.7
11927064	14	0.6
11927062	15	0.5
11927050	16	0.6
11927057	16	0.7
11927058	17	0.9
11927063	18	< 0.3
11926788	19	< 0.3
11931190	19	0.6
11926794	20	< 0.3
11931199	20	< 0.3
11931195	21	< 0.3
11926797	22	< 0.3
11931196	23	< 0.3
11926799	24	0.5
11926798	25	< 0.3
11931169	26	< 0.3
11931175	ADMIN SECRETARY	< 0.3
11931197	APR	< 0.3
11931200	APR	< 0.3
11931099	ART	< 0.3
11931188	ART	< 0.3
11931164	BSO	< 0.3
11931192	COLLINS	< 0.3
11926793	CONFERENCE	< 0.3
11927072	COUNSELOR	< 0.3

Table 1- Radon Testing Results		
Poolesville Elementary School		
Test Period: 3/3/2025 - 3/6/2025		
11927065	ESOL	< 0.3
11927042	GYM	0.8
11927060	GYM	0.6
11927041	GYM OFFICE	1.5
11931194	GYM OFFICE	1.0
11931177	HEALTH	< 0.3
11927069	HEALTH 2	< 0.3
11931189	KITCHEN OFFICE	< 0.3
11926786	LOUNGE	< 0.3
11926785	MAIN OFFICE	< 0.3
11927073	MEDIA	0.6
11931183	MEDIA OFFICE	< 0.3
11931178	MUSIC	< 0.3
11927067	PARAS	0.5
11927068	READING	< 0.3
11926792	READING 9	0.8
11927066	READING 9	< 0.3
11931191	ROBBINS	< 0.3
11931187	SDT	< 0.3
11927074	SP	< 0.3
11931170	WORK ROOM	< 0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Poolesville Elementary School							
Test Period: 3/3/2025 - 3/6/2025							
≥2.0 and <2.7 pCi/L		≥2.7 and <4.0 pCi/L		≥4.0 and <8.0 pCi/l		≥8.0 pCi/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			
Poolesville Elementary School			
Test Period: 3/3/2025 - 3/6/2025			
Kit Number	**QC Type**	**Room / Area**	**Result**
11931193	D	5	< 0.3
11927057	D	16	0.7
11931190	D	19	0.6
11926794	FB	20	< 0.3
11931188	D	Art	< 0.3
11931194	D	Gym Office	1.0
11927066	FB	Reading 9	< 0.3
11886966	OB	OFFICE BLANK	< 0.3
11886999	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Poolesville Elementary School										
Test Period: 3/3/2025 - 3/6/2025										
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
11931193	11931179	5	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11927057	11927050	16	0.7	0.6	✓	1.2	PASS	0.7	<1-pCi/L	✓
11931190	11926788	19	0.6	0.3	✓	0.6	PASS	0.5	<1-pCi/L	✓
11927041	11931194	Gym Office	1.5	1.0	✓	2.0	PASS	1.3	<1-pCi/L	✓
11931188	11931099	Art	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓

NOTES:

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

Table 4 - Summary of Invalid Measurement Locations		
Poolesville Elementary School		
Test Period: 3/3/25 - 3/6/25		
Kit Number	**Room/Area**	**Reason**
N/A	N/A	N/A

Attachment 2:

Laboratory Reports

March 11, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
POOLESVILLE ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11927070	1	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931184	10	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11931186	11	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11931185	12	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11927049	13	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11927064	14	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11927062	15	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11927057	16	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11927050	16	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11927058	17	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.9 ± 0.3	2025-03-11
11927063	18	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926788	19	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931190	19	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11927075	2	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926794	20	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931199	20	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931195	21	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926797	22	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931196	23	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926799	24	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11926798	25	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931169	26	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927076	3	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927077	4	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11931193	5	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931179	5	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931198	6	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926795	7	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926796	8	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931175	ADMIN SECRETARY	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931197	APR	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931200	APR	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931099	ART	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931188	ART	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931164	BSO	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931192	COLLINS	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926793	CONFERENCE	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11

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

March 11, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
POOLESVILLE ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11927072	COUNSELOR	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927065	ESOL	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927042	GYM	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.8 ± 0.3	2025-03-11
11927060	GYM	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11931194	GYM OFFICE	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	1.0 ± 0.4	2025-03-11
11927041	GYM OFFICE	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	1.5 ± 0.4	2025-03-11
11931177	HEALTH	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927069	HEALTH 2	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931189	KITCHEN OFFICE	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926786	LOUNGE	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926785	MAIN OFFICE	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927073	MEDIA	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11931183	MEDIA OFFICE	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931178	MUSIC	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927067	PARAS	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11927068	READING	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11926792	READING 9	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	0.8 ± 0.3	2025-03-11
11927066	READING 9	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931191	ROBBINS	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931187	SDT	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11927074	SP	2025-03-04 @ 10:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11931170	WORK ROOM	2025-03-04 @ 9:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11

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

March 11, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11887000	OB	2025-03-04 @ 11:00 am	2025-03-07 @ 11:00 am	< 0.3	2025-03-11

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

March 11, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRAVEL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886974	TB	2025-03-04 @ 11:00 am	2025-03-07 @ 11:00 am	< 0.3	2025-03-11

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 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 µR/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

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 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 µR/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

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KCI TECHNOLOGIES

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 March 4th – March 7th, 2025

Name of Schools:

1. Poolesville HS
2. Quince Orchard HS
3. Redland MS
4. Ridgeview MS
5. Rocky Hill MS
6. Rosemont ES
7. Poolesville ES

	Date	Initials
Radon Test Kits Deployed	3/4/2025	
Radon Test Kits Collected	3/7/2025	
Radon Test Kits Shipped to Lab*	3/7/2025	
Radon Test Kits Received by Lab*	3/10/2025	

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

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Poolesville Elementary School
Date of Test Report	2/17/2023
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	1
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.7 pCi/L

Project Status:

1. Post mitigation testing completed.

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February 17, 2023

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

Re: **Radon Testing Services**
KCI Job # 122210551

Location: Poolesville Elementary School
19565 Fisher Avenue
Poolesville, MD 20937

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 Poolesville Elementary School, located at 19565 Fisher Ave. Poolesville, MD 20937 (subject site).

Scope of Services:

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

KCI visited the site on January 24, 2023 and deployed three (3) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on January 27, 2023 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Accustar Labs - MA. for analysis by gamma-ray spectroscopy.

Accustar Labs - MA is a NRSB certified analytical laboratory for radon analysis (certification #ARL0017) located at 2 Saber Way, Ward Hill, MA 01835.

Evaluation of Testing Conditions:

These tests represent:

- Follow up to biennial post mitigation 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 temperatures ranged from the 31°F to 52°F. Maximum sustained winds ranged from 5-25 miles per hour. Average humidity was around 60% with .32 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Poolesville ES		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11634901	STAFF LOUNGE	< 0.3
11634902	STAFF LOUNGE	0.7
11634918	STAFF LOUNGE	< 0.3

Table 2- Radon Testing Results			
Poolesville ES			
Test Period: 01/24/23 - 01/27/23			
Kit Number	QC Type	Room / Area	Result
11634901	FB	Staff Lounge	< 0.3
11634902	D	Staff Lounge	0.7
11633975	OB	OFFICE BLANK	< 0.3
11633983	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Poolesville ES		
Test Period: 01/24/23 - 01/27/23		
Kit Number	Room/Area	Result
	N/A	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Poolesville ES		
Test Period: 01/24/23 - 01/27/23		
Kit Number	Room/Area	Result
	N/A	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 1, 2023 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
POOLESVILLE ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11634901	STAFF LOUNGE	2023-01-24 @ 8:00 am	2023-01-27 @ 8:00 am	< 0.3	2023-01-31
11634902	STAFF LOUNGE	2023-01-24 @ 8:00 am	2023-01-27 @ 8:00 am	0.7 ± 0.4	2023-01-31
11634918	STAFF LOUNGE	2023-01-24 @ 8:00 am	2023-01-27 @ 8:00 am	< 0.3	2023-01-31

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 KC I TECHNOLOGIES, INC Job Number 208343

NOMINAL Conditions: Radon Conc 34.7 pCi/L Rel. Hum 49.4 % Temp. 69.6 F

Date Start: 12/24/22 Date Stop: 12/27/22	Date Start: _____ Date Stop: _____
Time Start: 0810 Time Stop: 0810	Time Start: _____ Time Stop: _____
Device No.'s: (5) CHAR BAGS -	Device No.'s: _____
11285109, 11285110, 11285101	_____
THRU 11285103	_____
BY CRF	_____
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

December 29, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285110	SK1	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	31.7 ± 2.5	2022-12-29
11285101	SK2	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.1 ± 2.4	2022-12-29
11285103	SK3	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	34.0 ± 2.7	2022-12-29
11285102	SK4	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.9 ± 2.5	2022-12-29
11285109	SK5	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	32.0 ± 2.6	2022-12-29

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

KCI TECHNOLOGIES

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Week 2 January Schools

Name of Schools:

1. Springbrook HS
2. White Oak MS
3. Cloverly ES
4. Georgian Forest ES
5. Harmony Hills ES
6. Poolesville ES
7. Montrose Center
8. Kingsley Wilderness
9. Poolesville HS
10. Carl Sandburg Learning Center

	Date	Initials
Radon Test Kits Deployed	01/24/2023	BMM
Radon Test Kits Collected	01/27/2023	BMM
Radon Test Kits Shipped to Lab*	01/27/2023	BMM
Radon Test Kits Received by Lab*	01/31/2023	BMM

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

KCI TECHNOLOGIES

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Poolesville Elementary School
Date of Test Report	6/1/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	1
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	0.6 pCi/L
Highest Value	2.0 pCi/L

Project Status

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

KCI TECHNOLOGIES

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

June 1, 2022

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

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

Location: Poolesville Elementary School
19565 Fisher Ave.
Poolesville, MD 20837

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 Poolesville Elementary School, 19565 Fisher Ave. Poolesville, MD 20837 (subject site).

Scope of Services:

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

KCI visited the site on April 19, 2022 and deployed three (3) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

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

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

KCI returned to the site on April 22, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the low 40°Fs and high temperatures ranged from the low 60°Fs to the mid 80°Fs. Maximum sustained winds ranged from 0-30 miles per hour. Average humidity was around 49% with 0.03 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Poolesville ES RT		
Test Period: 04/19/2022 - 04/22/2022		
Kit Number	Room / Area	Result
11132033	CAFETERIA OFFICE	0.6
11139395	CAFETERIA OFFICE	1.7
11139397	CAFETERIA OFFICE	2.0

Table 2- Radon Testing Results			
Poolesville ES RT			
Test Period: 04/19/2022 - 04/22/2022			
Kit Number	QC Type	Room / Area	Result
11139395	D	Cafeteria Office	1.7
11132033	FB	Cafeteria Office	0.6
11139882	OB	OFFICE BLANK	< 0.3
11139881	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Poolesville ES RT		
Test Period: 04/19/22 - 04/22/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Poolesville ES RT		
Test Period: 04/19/22 - 04/22/22		
Kit Number	Room/Area	Result
	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

April 25, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11132033	CAFETERIA OFFICE	2022-04-19 @ 11:00 am	2022-04-22 @ 8:00 am	0.6 ± 0.3	2022-04-25

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

April 25, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139395	CAFETERIA OFFICE	2022-04-19 @ 11:00 am	2022-04-22 @ 8:00 am	1.7 ± 0.3	2022-04-25
11139397	CAFETERIA OFFICE	2022-04-19 @ 11:00 am	2022-04-22 @ 8:00 am	2.0 ± 0.3	2022-04-25

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 Eight	_____
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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 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 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

KCI TECHNOLOGIES

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – April 2022 Schools – Retesting

Name of Schools:

1. Pine Crest ES
2. Montgomery Knolls ES
3. Poolesville ES
4. Cloverly ES

	Date	Initials
Radon Test Kits Deployed	04/19/2022	BMM
Radon Test Kits Collected	04/22/2022	BMM
Radon Test Kits Shipped to Lab*	04/22/2022	BMM
Radon Test Kits Received by Lab*	04/25/2022	BMM

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Poolesville Elementary School
Date of Test Report	05/27/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	1
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.0 pCi/L

Project Status

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

KCI TECHNOLOGIES

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May 27, 2022

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

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

Location: Poolesville Elementary School
19565 Fisher Ave.
Poolesville, MD 20837

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 Poolesville Elementary School, located at 19565 Fisher Ave. Poolesville, MD 20837 (subject site).

Scope of Services:

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

KCI visited the site on March 29, 2022 and deployed three (3) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

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

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

KCI returned to the site on April 01, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

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

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Poolesville ES RT		
Test Period: 03/29/2022 - 04/01/2022		
Kit Number	Room / Area	Result
11140007	STAFF LOUNGE	1.0
11140008	STAFF LOUNGE	< 0.3
11140024	STAFF LOUNGE	0.8

Table 2- Radon Testing Results			
Poolesville ES RT			
Test Period: 03/29/2022 - 04/01/2022			
Kit Number	QC Type	Room / Area	Result
11140024	D	Staff lounge	0.8
11140008	FB	Staff lounge	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Poolesville ES RT		
Test Period: 03/29/22 - 04/01/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Poolesville RT		
Test Period: 03/29/22 - 04/01/22		
Kit Number	Room/Area	Result
	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
POOLESVILLE ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11140007	STAFF LOUNGE	2022-03-29 @ 8:00 am	2022-04-01 @ 9:00 am	1.0 ± 0.3	2022-04-04
11140008	STAFF LOUNGE	2022-03-29 @ 8:00 am	2022-04-01 @ 9:00 am	< 0.3	2022-04-04
11140024	STAFF LOUNGE	2022-03-29 @ 8:00 am	2022-04-01 @ 9:00 am	0.8 ± 0.3	2022-04-04

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

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

Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: _____ Date Stop: _____
Time Start: 0705 Time Stop: 0705	Time Start: _____ Time Stop: _____
Device No.'s: (5) Char Bags -	Device No.'s: _____
11139367, 11139368, 11139371,	_____
11139710, 11139717	_____
E3 Eight	_____
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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 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 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

KCI TECHNOLOGIES

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

1. Watkins Mill HS
2. Cresthaven ES
3. East Silver Spring ES
4. Fairland Center
5. Francis Scott Key MS
6. Greencastle ES
7. Roscoe Nix ES
8. West Farm Transportation Depot
9. Wheaton HS
10. White Oak MS
11. William Tyler Page ES
12. Bel Pre ES
13. Fairland ES
14. Highland ES
15. Rolling Terrace ES
16. Takoma Park MS
17. Viers Mill ES
18. Poolesville ES

	Date	Initials
Radon Test Kits Deployed	03/29/2022	BMM
Radon Test Kits Collected	04/01/2022	BMM
Radon Test Kits Shipped to Lab*	04/01/2022	BMM
Radon Test Kits Received by Lab*	04/04/2022	BMM

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

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Poolesville Elementary School
Date of Test Report	2/21/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	59
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.6 pCi/L

Project Status:
Initial testing completed; Missing or compromised samples need re-sampling

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

February 21, 2022

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

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

Location: Poolesville Elementary School
19565 Fisher Ave.
Poolesville, MD 20837

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 Poolesville Elementary School, located at 19565 Fisher Ave. Poolesville, MD 20837 (subject site).

Scope of Services:

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

KCI visited the site on January 18, 2022 and deployed sixty three (63) 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 January 21, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc.

is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the 30s and high temperatures ranged from the mid 30s to the mid 40s Fahrenheit. Maximum sustained winds ranged from 7-20 miles per hour. Average humidity was around 50% with .05 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Poolesville ES		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106169	1	< 0.3
11106170	2	< 0.3
11106161	3	1.0
11106163	3	1.0
11106195	4	< 0.3
11106188	5	< 0.3
11106189	6	1.0
11106164	7	< 0.3
11106162	8	< 0.3
11106197	9	0.6
11106154	10	< 0.3
11106176	10	< 0.3
11106180	11	0.9
11106166	12	< 0.3
11106182	13	< 0.3
11106179	14	< 0.3
11106186	15	< 0.3
11106156	16	1.6
11106158	17	< 0.3
11106167	17	0.7
11106183	17	< 0.3
11106187	18	< 0.3
11106184	19	1.3
11106153	20	< 0.3
11106168	21	< 0.3
11106181	22	1.0
11106160	23	< 0.3
11106178	24	< 0.3
11106095	25	< 0.3
11106192	25	< 0.3
11106185	26	0.8
11106148	ART	< 0.3
11106175	BUILDING SERVICES OFFICE	0.7
11106152	CAFE	< 0.3
11106177	CAFE	0.8
11106157	CAFE OFFICE	3.5
11106174	COLLINS	< 0.3
11106165	COMPUTER LAB	< 0.3
11106151	CONFERENCE	< 0.3
11106199	COPY/MAIL	0.7
11106091	COU	0.6
11106173	D'AIUTOLO	< 0.3

Table 1- Radon Testing Results		
Poolesville ES		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106159	ESOL	< 0.3
11106194	GYM	< 0.3
11106198	GYM	< 0.3
11106200	HARNEY	0.6
11106171	HEALTH	< 0.3
11106098	LUNCH HALLWAY	< 0.3
11106099	LUNCH HALLWAY	< 0.3
11106191	LUNCH HALLWAY	< 0.3
11106155	LUNCH HALLWAY 2	< 0.3
11106190	MATERIAL PREP	1.2
11106100	MEDIA CENTER	0.6
11106193	MEDIA CENTER BACK ROOM	0.9
11106147	MU	0.5
11106096	PE OFFICE	< 0.3
11106172	ROBBINS	< 0.3
11106097	SDT	< 0.3
11106149	STG	< 0.3
11106196	STORAGE 1	1.1
11106143	TRIAGE	0.8
11106145	TRIAGE	< 0.3
11106146	TRIAGE	< 0.3

Table 2- Radon Testing Results			
Poolesville ES			
Test Period: 01/18/22-01/21/22			
Kit Number	QC Type	Room / Area	Result
11106099	D	Lunch Hallway	< 0.3
11106098	FB	Lunch Hallway	< 0.3
11106176	D	10	< 0.3
11106167	D	17	0.7
11106192	D	25	< 0.3
11106145	D	Triage	< 0.3
11106146	FB	Triage	< 0.3
11106397	OB	OFFICE BLANK	< 0.3
11106400	FB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Poolesville ES		
Test Period: 12/14/2021 - 12/17/2021		
Kit Number	Room/Area	Result
NA	Staff Lounge	NA

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Poolesville ES		
Test Period: 12/14/2021 - 12/17/2021		
Kit Number	Room/Area	Result
	NA	

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 27, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
POOLESVILLE ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106169	1	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106154	10	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106176	10	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106180	11	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.9 ± 0.4	2022-01-26
11106166	12	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106182	13	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106179	14	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106186	15	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106156	16	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.6 ± 0.5	2022-01-26
11106167	17	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.7 ± 0.4	2022-01-26
11106183	17	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106158	17	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106187	18	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106184	19	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.3 ± 0.4	2022-01-26
11106170	2	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106153	20	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106168	21	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106181	22	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.0 ± 0.4	2022-01-26
11106160	23	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106178	24	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106192	25	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106095	25	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106185	26	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.8 ± 0.4	2022-01-26
11106163	3	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	1.0 ± 0.4	2022-01-26
11106161	3	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	1.0 ± 0.5	2022-01-26
11106195	4	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106188	5	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106189	6	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	1.0 ± 0.4	2022-01-26
11106164	7	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106162	8	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106197	9	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106148	ART	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106175	BUILDING SERVICES OFFICE	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.7 ± 0.4	2022-01-26
11106177	CAFE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.8 ± 0.4	2022-01-26
11106152	CAFE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106157	CAFE OFFICE	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	3.5 ± 0.6	2022-01-26
11106174	COLLINS	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26

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

January 27, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
POOLESVILLE ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106165	COMPUTER LAB	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106151	CONFERENCE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106199	COPY/MAIL	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	0.7 ± 0.4	2022-01-26
11106091	COU	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106173	D'AIUTOLO	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106159	ESOL	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106194	GYM	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106198	GYM	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106200	HARNEY	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106171	HEALTH	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106098	LUNCH HALLWAY	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106191	LUNCH HALLWAY	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106099	LUNCH HALLWAY	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106155	LUNCH HALLWAY 2	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106190	MATERIAL PREP	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.2 ± 0.4	2022-01-26
11106100	MEDIA CENTER	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106193	MEDIA CENTER BACK ROOM	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.9 ± 0.4	2022-01-26
11106147	MU	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.5 ± 0.4	2022-01-26
11106096	PE OFFICE	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106172	ROBBINS	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106097	SDT	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106149	STG	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106196	STORAGE 1	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	1.1 ± 0.5	2022-01-26
11106143	TRIAGE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.8 ± 0.4	2022-01-26
11106146	TRIAGE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106145	TRIAGE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 203404

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

Date Start: 12/24/21 Date Stop: 12/27/21	Date Start: _____ Date Stop: _____
Time Start: 0809 Time Stop: 0809	Time Start: _____ Time Stop: _____
Device No.'s: (2) Char Bags - 9341721, 9341722	Device No.'s: _____
G4 Left	
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____

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

December 31, 2021 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

SK MA

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

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

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

KCI TECHNOLOGIES

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 – January 2022 Schools

Name of Schools:

1. Poolesville ES
2. Rosa Parks MS
3. Seven Locks ES
4. Somerset ES
5. Thomas Pyle MS
6. Walt Whitman HS
7. Walter Johnson HS
8. Westland MS
9. Wyngate ES

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

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING

Executive Summary: Poolesville Elementary School

Date of Test Report:	3/14/2016 (Rev 1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	42
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.4

Project Status:
Initial testing completed; no further action at this time.

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

March 14, 2016 (Rev 1)

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

Re: **Radon Testing Services**
KCI Job # 12146341.22

Location: Poolesville Elementary School
19565 Fisher Avenue
Poolesville, MD 20837

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 Poolesville Elementary School, located at 19565 Fisher Avenue in Poolesville, Maryland 20837 (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 December 28, 2015 and deployed fifty-one (51) 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 31, 2015 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 ≤ 65° 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 Attachment 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.

Sincerely,

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

Legend
x- Sample Location

Poolesville Elementary

19565 Fisher Avenue, Poolesville, MD 20837

FLOOR PLAN 2015- 2016

6/1/15

Pinto-Root
G3
15

Gelfound
G3
14

13
Petropouleas
G3

Zgoda-Gillespie
G5
16

Keegin
G5
17

Sparrow
G5
19

Chiappone
G4
21

Workroom
23

Sheppard
G1
25

McClain
G1
26

LOUNGE

M

F

Freezer

B | G | Staff

Hufnagel
G2
12

Smith
G2
11

White
G2
10

Evans
Counselor
Johnston
Reading Storage Room
9

Storage

Gym
Baughman

G

MED
STG

ESOL
Souders

Showell-Davis
Long
18

Amatp
G4
20

Fry
G4
22

Sholtis
G1
24

G B

Zoellner
Anderson

Cafeteria

Media Center
Black
Fisher

COURTYARD

Building Services
Weedon, Jimenez, Comrie, , Yan, Marroquin

PTA/Volunteers

Art Room
Thomas

Music Room
Instrumental M
Lyon
Bryan

All Purpose Room

Boiler Room

Johnston/Kierce
Reading/ SDT

Book Storage

Casey
K
8

Reading Initiative
Moser
6

Sp. Ed. Paras
4

Gardiner
Norris
Special Ed
2

SUPPLY

B

G

Lee

Health Room

7
Boettner
K

5
Flexible Classroom

3
Binder/ Capozzi
Howells
Speech and IDA

1
Kent/Lefave
Special Ed

M/W

OT/PT

Conference Room

Robbins
Prescott
Harney

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		
Poolesville E.S.		
Test Period: 12/28/15-12/31/15		
Kit Number	**Room / Area**	**Result**
7711538	1	1.0
7711545	2	0.8
7711586	3	1.1
7711543	5	0.8
7711536	6	0.8
7711549	7	1.0
7711540	8	0.9
7711548	10	< 0.3
7711580	11	< 0.3
7711578	12	< 0.3
7711576	13	0.7
7711582	14	< 0.3
7711573	15	< 0.3
7711567	16	1.0
7711595	17	< 0.3
7711561	18	< 0.3
7711572	19	1.4
7711566	20	< 0.3
7711568	21	0.6
7711564	22	0.6
7711599	23	< 0.3
7711570	24	0.8
7711569	25	< 0.3
7711562	26	< 0.3
7711563	ART	0.7
7711550	BUILDING SERVICE	0.6
7711587	CAFETERIA	< 0.3
7711596	CAFETERIA	0.6
7711558	COMMUNICATION	0.9
7711577	CONSLING	0.6
7711597	ESOL	< 0.3
7711594	FO SECRITARY	0.6
7711590	FRONT OFFICE	< 0.3
7711535	GYM	< 0.3
7711575	GYM	< 0.3
7711598	HEALTH ROOM	0.6
7711591	MAIL ROOM	< 0.3
7711565	MEDIA CENTER	0.8
7711585	MEDIA CENTER	0.6
7711584	MU	0.8
7711593	PR	< 0.3
7711589	R	< 0.3
7711552	STAFF DEVELOPMEN	0.6
7711559	STAFF DINNING	1.0
7711600	WORK ROOM	0.6

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Poolesville E.S.		
Test Period: 12/28/15-12/31/15		
Kit Number	**QC Type**	**Result**
7711579	D (12)	< 0.3
7711544	D (7)	0.7
7711560	D (STAFF DINNING)	< 0.3
7711574	FB (16)	< 0.3
7711592	FB (MAIN OFFICE)	< 0.3
7710585	OB (0)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 16, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

POOLEVILLE E.S.
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7710585	0	2015-12-28 @ 5:00 pm	2015-12-31 @ 1:00 pm	< 0.3	2016-01-05
7711538	1	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	1.0 ± 0.4	2016-01-05
7711548	10	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711580	11	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711578	12	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711579	12	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711576	13	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.7 ± 0.4	2016-01-05
7711582	14	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711573	15	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711574	16	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711567	16	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	1.0 ± 0.4	2016-01-05
7711595	17	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711561	18	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711572	19	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	1.4 ± 0.4	2016-01-05
7711545	2	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.8 ± 0.4	2016-01-05
7711566	20	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711568	21	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711564	22	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711599	23	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711570	24	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.8 ± 0.4	2016-01-05
7711569	25	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711562	26	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711586	3	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	1.1 ± 0.4	2016-01-05
7711543	5	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.8 ± 0.3	2016-01-05
7711536	6	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.8 ± 0.4	2016-01-05
7711544	7	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.7 ± 0.3	2016-01-05
7711549	7	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	1.0 ± 0.3	2016-01-05
7711540	8	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.9 ± 0.3	2016-01-05
7711563	ART	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.7 ± 0.3	2016-01-05
7711550	BUILDING SERVICE	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711587	CAFITERIA	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711596	CAFITERIA	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711558	COMMUNICATION	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.9 ± 0.3	2016-01-05
7711577	CONSLING	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711597	ESOL	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711594	FO SECRITARY	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711590	FRONT OFFICE	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05

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

January 16, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

POOLEVILLE E.S.
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7711575	GYM	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711535	GYM	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711598	HEALTH ROOM	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711591	MAIL ROOM	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711592	MAIN OFFICE	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711585	MEDIA CENTER	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.4	2016-01-05
7711565	MEDIA CENTER	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.8 ± 0.4	2016-01-05
7711584	MU	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.8 ± 0.3	2016-01-05
7711593	PR	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711589	R	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711552	STAFF DEVELOPMEN	2015-12-28 @ 3:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05
7711559	STAFF DINNING	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	1.0 ± 0.4	2016-01-05
7711560	STAFF DINNING	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7711600	WORK ROOM	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.3	2016-01-05

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

January 15, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS PHASE 3 & 4
TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7708218	TRAMSIT 4	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708200	TRANSIT 1	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708190	TRANSIT 10	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708189	TRANSIT 11	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708191	TRANSIT 12	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708188	TRANSIT 13	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708197	TRANSIT 14	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708186	TRANSIT 15	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708185	TRANSIT 16	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708184	TRANSIT 17	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708182	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708187	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708199	TRANSIT 2	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708181	TRANSIT 20	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708180	TRANSIT 21	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708183	TRANSIT 22	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708178	TRANSIT 23	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708179	TRANSIT 24	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708177	TRANSIT 25	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708176	TRANSIT 26	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708174	TRANSIT 27	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708173	TRANSIT 28	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708175	TRANSIT 29	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708198	TRANSIT 3	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708172	TRANSIT 30	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708194	TRANSIT 5	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708196	TRANSIT 6	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708193	TRANSIT 7	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708192	TRANSIT 8	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708195	TRANSIT 9	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23

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

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

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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, 7706211, 7706366, 7706380, 7706381 F3 Left	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: _____
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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Chain of Custody

Project Name: MCPS Radon Phase III

Name of Schools:

1. Burnt Mills ES
2. Burtonsville ES
3. Cedar Grove ES
4. Cloverly ES
5. Cold Spring ES
6. Damascus HS
7. Darnestown ES
8. Diamond ES
9. Charles R. Drew ES
10. DuFief ES
11. Thomas Edison HS
12. Robert Frost MS
13. Georgian Frost ES
14. Germantown ES
15. Goshen ES
16. Greencastle ES
17. Greenwood ES
18. Lake Seneca ES
19. Laytonsville ES
20. Col. E. Brooke MS
21. Luxmanor ES
22. Magruder HS
23. Thur. Marshall ES
24. Monocacy ES
25. Northlake Center
26. Olney ES
27. Rosa Parks MS
28. Poolesville ES
29. Poolesville HS
30. Potomac ES
31. Rock Terrace HS
32. Rosemary Hills ES
33. Carl Sandburg
34. Sequoyah ES
35. Stedwick ES
36. Whetstone ES

	Date	Initials
Radon Test Kits Deployed	12/28/15	JM
Radon Test Kits Sampled	12/31/15	JM
Radon Test Kits Shipped to Lab*	12/31/15	JM
Radon Test Kits Received by Lab*	1/4/16	JM

*All samples sent to Air Check, Inc., 1936 Butler Bridge Road, Mills River, NC 28758