

School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Briggs Chaney Middle School		
Address:	1901 Rainbow Drive		
	Silver Spring, MD		
Reason for Testing:	Scheduled Re-Testing - <input type="checkbox"/> 2-year or <input checked="" type="checkbox"/> 5-year schedule <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> Building Envelope or HVAC Upgrades <input type="checkbox"/> New Construction – Addition or Facility		
Current Radon Status:	<input type="checkbox"/> Active Mitigation (2-year regular schedule) <input checked="" type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested (New Facility)		
Round of Testing:	<input checked="" type="checkbox"/> Initial Testing -or- <input type="checkbox"/> Follow-up Testing		
Testing Status:	<input checked="" type="checkbox"/> No Further Testing Needed -or- <input type="checkbox"/> Follow-Up Testing Required		

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

Mitigation -	Facility Radon Status:		
<input checked="" type="checkbox"/> Not Required <input type="checkbox"/> Required (≥ 4.0 -pCi/L) Rooms:	<input checked="" type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	75	Lowest Value (pCi/L)	< 0.3
Number of Rooms (≥ 4.0 -pCi/L)	0	Highest Value (pCi/L)	1.4

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

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

- Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results – list of rooms by test result ≥ 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

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

Testing

<input checked="" type="checkbox"/> Short-Term <input type="checkbox"/> Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	12/02/2024 12/05/2024
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If “Yes” please explain/detail in the space below:				
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If “No” please explain/detail in the space below:				

Testing (continued)

Round of Testing	Detectors Deployed				
	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Test Locations ¹	72	0	3	0	75
Duplicates ²	8	0	0	0	8
Field Blanks ³	4	0	0	0	4
Grand Total					87

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

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

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

Round of Testing	QA/QC Samples		Total
	Initial	Follow-Up	
Spikes ¹	Not applicable		3
Trip Blanks ²	1	0	1
Office Blanks ^{3, 4}	1	0	1
			5

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

2 – One per shipping container from start of detector deployment

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

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

Quality Assurance / Quality Control (continued)

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

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

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

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

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

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

Summary of Test Results¹ and Determination of Valid Measurements²

Round of Testing	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Number of test locations:	72	0	3	0	75
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 :	1	0	0	0	1
Number of failed duplicate control locations:	0	0	0	0	0
Percentage of missing test locations for the facility ^{4,5} :	1.39%	0%	0%	0%	1.33%

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 $\leq 33\%$. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;

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

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

Follow-Up Testing

Required –

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

Reason for Follow-Up Testing	Testing Procedure	Follow-up Result	Conclusion
Insufficient Number of Measurements	Follow same procedures as Initial Testing	Not Applicable	Follow Initial Testing procedures
Results ≥ 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		
Briggs Chaney Middle School		
Test Period: 12/02/2024 - 12/05/2024		
Kit Number	Room / Area	Result
11893029	1	< 0.3
11893034	1	0.6
11893032	2	< 0.3
11893081	3	0.5
11893046	4	< 0.3
11893039	5	< 0.3
11893073	6	< 0.3
11893076	7	0.9
11893075	8	< 0.3
11893069	9	< 0.3
11893070	10	< 0.3
11893068	11	< 0.3
11893065	12	< 0.3
11893049	13	< 0.3
11893050	13	< 0.3
11893061	13	< 0.3
11893040	16	< 0.3
11893047	17	1.0
11893055	18	0.6
11893056	19	< 0.3
11893085	21	< 0.3
11893078	31	< 0.3
11893074	11B	0.7
11893060	14 OFFICE	< 0.3
11893062	14 OFFICE 2	0.7
11893042	14A	1.1
11893041	14B	1.4
11893051	14B OFFICE	0.8
11893052	14B WORK ROOM	0.8
11893053	15 OFFICE	< 0.3
11893058	15 SIDE ROOM	1.2
11893057	15A	1.0
11893048	15A OFFICE	1.2
11893054	15B	0.8
11893059	15B	0.9
11893023	6A	0.9
11893045	6A	1.1
11893063	6B	0.7
11893012	ADMIN OFFICE	0.6
11893024	APR	< 0.3
11893031	APR	< 0.3

Table 1- Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 12/02/2024 - 12/05/2024		
Kit Number	Room / Area	Result
11893017	ASSISTANT PRINCIPAL 1	< 0.3
11893018	ASSISTANT PRINCIPAL 2	< 0.3
11893014	ASSISTANT PRINCIPAL 3	< 0.3
11893008	BLR	1.1
11893028	BLR OFFICE	0.6
11893092	BSM OFFICE	< 0.3
11893071	BUILDING SERVICE OFFICE	< 0.3
11893064	COMM 6	< 0.3
11893066	COMM 6	< 0.3
11893067	COMM 6	< 0.3
11893035	COMMUNICATIONS LAB	< 0.3
11893001	CONFERENCE	0.6
11893002	CONFERENCE	< 0.3
11893086	DANCE ROOM	< 0.3
11893007	GLR	< 0.3
11893022	GLR	0.6
11893021	GLR OFFICE	1.3
11893009	GUIDANCE CONFERENCE ROOM	< 0.3
11893006	GYM	< 0.3
11893015	GYM	< 0.3
11893016	GYM	< 0.3
11893020	HEALTH ROOM OFFICE	< 0.3
11893072	KITCHEN OFFICE	< 0.3
11893082	KITCHEN OFFICE	< 0.3
11893077	KITCHEN. OFFICE	< 0.3
11893011	MAIN OFFICE	< 0.3
11893037	MEDIA CENTER	0.6
11893038	MEDIA CENTER	< 0.3
11893043	MEDIA CENTER OFFICE	< 0.3
11893044	MEDIA CENTER WORK ROOM	0.9
11893030	MUSIC OFFICE	< 0.3
11893019	NURSE'S OFFICE	< 0.3
11893013	OFFICE WORK ROOM	< 0.3
11893005	PRINCIPAL	0.7
11893025	ROOM F	0.6
11893026	ROOM G	0.6
11893003	ROOM H	0.7
11893004	ROOM I	< 0.3
11893027	ROOM J	< 0.3
11893010	SPECIAL SERVICES ROOM	0.7
11893083	SPEECH OFFICE	0.6

Table 1- Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 12/02/2024 - 12/05/2024		
Kit Number	Room / Area	Result
11893036	STAFF LOUNGE	< 0.3
11893033	STAGE	< 0.3
11893084	TEAM ROOM B	< 0.3
11893090	TV STUDIO OFFICE	1.1
11893091	WEIGHT ROOM	< 0.3

[illegible]

Table 3 - QC Radon Testing Results			
Briggs Chaney Middle School			
Test Period: 12/02/2024 - 12/05/2024			
Kit Number	QC Type	Room / Area	Result
11893050	D	13	< 0.3
11893061	FB	13	< 0.3
11893059	D	15B	0.9
11893066	D	COMM 6	< 0.3
11893067	FB	COMM 6	< 0.3
11893002	D	CONFERENCE	< 0.3
11893022	D	GLR	0.6
11893015	D	GYM	< 0.3
11893016	FB	GYM	< 0.3
11893082	D	KITCHEN OFFICE	< 0.3
11893077	FB	KITCHEN OFFICE	< 0.3
11893034	D	RM 1	0.6
11893045	D	TEAM ROOM 6A	1.1
11892899	OB	OFFICE BLANK	< 0.3
11892900	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Briggs Chaney Middle School										
Test Period: 12/02/2024 - 12/05/2024										
Sample ID			Duplicate Concentrations (pCi/L) and OC Checks							
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3
11893001	11893002	Conference	0.6	0.3	✓	0.6	PASS	0.5	<1-pCi/L	✓
11893016	11893015	Gym	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11893034	11893029	1	0.6	0.3	✓	0.6	PASS	0.5	<1-pCi/L	✓
11893061	11893049	13	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11893054	11893059	15B	0.9	0.8	✓	1.6	PASS	0.9	<1-pCi/L	✓
11893064	11893066	Comm 6	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11893923	11893045	6A	1.1	0.9	✓	1.8	PASS	1.0	<1-pCi/L	✓
11893082	11893077	Kitchen Office	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

Attachment 2:

Laboratory Reports

Radon test result report for:
BRIGGS CHANEY MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11893070	10	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893068	11	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893074	11B	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09
11893065	12	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893050	13	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893049	13	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893061	13	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893060	14 OFFICE	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893062	14 OFFICE 2	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.7 ± 0.4	2024-12-09
11893042	14A	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	1.1 ± 0.4	2024-12-09
11893041	14B	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	1.4 ± 0.4	2024-12-09
11893051	14B OFFICE	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.8 ± 0.4	2024-12-09
11893052	14B WORK ROOM	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.8 ± 0.4	2024-12-09
11893053	15 OFFICE	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893058	15 SIDE ROOM	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	1.2 ± 0.4	2024-12-09
11893057	15A	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	1.0 ± 0.4	2024-12-09
11893048	15A OFFICE	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	1.2 ± 0.4	2024-12-09
11893054	15B	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.8 ± 0.4	2024-12-09
11893059	15B	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.9 ± 0.4	2024-12-09
11893040	16	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893047	17	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	1.0 ± 0.4	2024-12-09
11893055	18	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.6 ± 0.4	2024-12-09
11893056	19	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893085	21	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893081	3	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.5 ± 0.4	2024-12-09
11893078	31	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893046	4	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893039	5	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893073	6	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893076	7	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.9 ± 0.4	2024-12-09
11893075	8	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893069	9	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893012	ADMIN OFFICE	2024-12-02 @ 7:00 am	2024-12-05 @ 9:00 am	0.6 ± 0.4	2024-12-09
11893031	APR	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893024	APR	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893017	ASSISTANT PRINCIPAL 1	2024-12-02 @ 7:00 am	2024-12-05 @ 7:00 am	< 0.3	2024-12-09
11893018	ASSISTANT PRINCIPAL 2	2024-12-02 @ 7:00 am	2024-12-05 @ 7:00 am	< 0.3	2024-12-09

Radon test result report for:
BRIGGS CHANEY MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11893014	ASSISTANT PRINCIPAL 3	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893008	BLR	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	1.1 ± 0.4	2024-12-09
11893028	BLR OFFICE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11893092	BUILDING SERVICE MANAGER OFFICE	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893071	BUILDING SERVICE OFFICE	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893064	COMM 6	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893067	COMM 6	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893066	COMM 6	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893035	COMMUNICATIONS LAB	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893002	CONFERENCE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893001	CONFERENCE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11893086	DANCE ROOM	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893007	GLR	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893022	GLR	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11893021	GLR OFFICE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	1.3 ± 0.4	2024-12-09
11893009	GUIDANCE CONFERENCE ROOM	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893016	GYM	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893006	GYM	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893015	GYM	2024-12-02 @ 8:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893020	HEALTH ROOM OFFICE	2024-12-02 @ 7:00 am	2024-12-05 @ 7:00 am	< 0.3	2024-12-09
11893072	KITCHEN OFFICE	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893082	KITCHEN OFFICE	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893077	KITCHEN. OFFICE	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893011	MAIN OFFICE	2024-12-02 @ 7:00 am	2024-12-05 @ 7:00 am	< 0.3	2024-12-09
11893037	MEDIA CENTER	2024-12-02 @ 8:00 am	2024-12-05 @ 9:00 am	0.6 ± 0.4	2024-12-09
11893038	MEDIA CENTER	2024-12-02 @ 8:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893043	MEDIA CENTER OFFICE	2024-12-02 @ 8:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893044	MEDIA CENTER WORK ROOM	2024-12-02 @ 9:00 am	2024-12-05 @ 9:00 am	0.9 ± 0.4	2024-12-09
11893030	MUSIC OFFICE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893019	NURSE'S OFFICE	2024-12-02 @ 7:00 am	2024-12-05 @ 7:00 am	< 0.3	2024-12-09
11893013	OFFICE WORK ROOM	2024-12-02 @ 7:00 am	2024-12-05 @ 7:00 am	< 0.3	2024-12-09
11893005	PRINCIPAL	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09
11893029	RM 1	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893034	RM 1	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11893032	RM 2	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893025	ROOM F	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11893026	ROOM G	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09

December 9, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
BRIGGS CHANEY MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11893003	ROOM H	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09
11893004	ROOM I	2024-12-02 @ 8:00 am	2024-12-05 @ 9:00 am	< 0.3	2024-12-09
11893027	ROOM J	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893010	SPECIAL SERVICES ROOM	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09
11893083	SPEECH OFFICE	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11893036	STAFF LOUNGE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893033	STAGE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893045	TEAM ROOM 6A	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	1.1 ± 0.4	2024-12-09
11893023	TEAM ROOM 6A	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.9 ± 0.4	2024-12-09
11893063	TEAM ROOM 6B	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09
11893084	TEAM ROOM B	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11893090	TV STUDIO OFFICE	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	1.1 ± 0.4	2024-12-09
11893091	WEIGHT ROOM	2024-12-02 @ 10:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09

P4792 / TYLER MCCLEAF

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
11892899	2024-12-02	11:00 am	2024-12-05	11:00 am	70	OFFICE	MAIN	O		1	< 0.3
11892900	2024-12-02	11:00 am	2024-12-05	11:00 am	70	TRAVEL	MAIN	T		1	< 0.3
11904003	2024-12-02	10:00 am	2024-12-05	11:00 am	70	JAMES HUBERT BLAKE HS	MAIN	SMALL GYM		1	1.4
11904272	2024-12-03	11:00 am	2024-12-06	11:00 am	70	TRAVEL	MAIN	T		1	< 0.3
11904291	2024-12-03	11:00 am	2024-12-06	11:00 am	70	OFFICE	MAIN	O		1	< 0.3

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 μ R/h Elevation = 820 ft

December 23, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**SK
MAIN**

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



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Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing December 2nd – December 5th, 2024

Name of Schools:

- | | |
|-------------------------|--------------------------|
| 1. Argyle MS | 4. James Hubert Blake HS |
| 2. Benjamin Banneker MS | 5. Briggs Chaney MS |
| 3. Belmont ES | 6. Burtonsville ES |

	Date	Initials
Radon Test Kits Deployed	12/02/2024	BMM
Radon Test Kits Collected	12/05/2024	BMM
Radon Test Kits Shipped to Lab*	12/05/2024	BMM
Radon Test Kits Received by Lab*	12/09/2024	BMM

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

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Briggs Chaney Middle 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	1
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	<0.3 pCi/L

Project Status

Current Project Status at this time: 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 #12146341.126

Location: Briggs Chaney Middle School

1901 Rainbow Drive
Silver Spring, Maryland 20905

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 Briggs Chaney Middle School, located at 1901 Rainbow Drive in Silver Spring, Maryland 20905 (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 2/11/2020 and deployed 1 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. ≥ 3.5 pCi/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 2/14/2020 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 were in the mid-20s to the upper-40s; and high temperatures ranged from the lower-40s to the upper-50s. Maximum sustained winds ranged from 14-24 miles per hour. Average humidity was approximately 74%. A total of 1.32 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 pCi/L	None	N/A
≤ 4.0 pCi/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

Floor Plan Legend

X-Sample Location (in red)

X- Previous Sample Location

1- Not Samled; No Ground Contact

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		
Briggs Chaney Middle School		
Test Period: 02/11/20-02/14/20		
Kit Number	Room / Area	Result
9346963	17A	< 0.3
9348502	OFFICE BLANK	< 0.3

Table 2- Radon Testing Results			
Briggs Chaney Middle School			
Test Period: 02/11/20-02/14/20			
Kit Number	QC Type	Room / Area	Result
9348522	TRANSIT BLANK	NA	0.7
9341735	TRANSIT BLANK	NA	<0.3

ATTACHMENT C

Laboratory Analytical Results

February 19, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**BRIGGS CHANEY MS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346963	17A	2020-02-11 @ 9:00 am	2020-02-14 @ 12:00 pm	< 0.3	2020-02-19

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 194523

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 49.8 % Temp. 70.2 F

Date Start: 2/21/20 Date Stop: 2/24/20 Date Start: _____ Date Stop: _____

Time Start: 0745 Time Stop: 0745 Time Start: _____ Time Stop: _____

Device No.'s: (9) Char Bags - Device No.'s: _____

9341725 thru 9341733

52 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 μ R/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 \pm 1.6	2020-02-26
9341730	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.1 \pm 1.6	2020-02-26
9341728	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 \pm 1.6	2020-02-26
9341726	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.8 \pm 1.5	2020-02-26
9341731	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.1 \pm 1.5	2020-02-26
9341729	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.2 \pm 1.6	2020-02-26
9341727	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.2 \pm 1.6	2020-02-26
9341732	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.3 \pm 1.6	2020-02-26

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



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Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 2

Name of Schools:

- | | |
|-----------------------|-------------------|
| 1. Argyle M.S. | 6. Fallsmead E.S. |
| 2. Banneker M.S. | 7. Farquhar M.S. |
| 3. Bel Pre E.S. | 8. Kennedy H.S. |
| 4. Blake H.S. | 9. Magruder H.S. |
| 5. Briggs Chaney M.S. | 10. Wheaton H.S. |

	Date	Initials
Radon Test Kits Deployed	2/11/20	DM
Radon Test Kits Collected	2/14/20	DM
Radon Test Kits Shipped to Lab*	2/14/20	DM
Radon Test Kits Received by Lab*	2/17/20	DM

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

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Briggs Chaney Middle School
Date of Report	2/3/2020
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	65
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	3.2 pCi/L

Project Status

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



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2/3/2020

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: Briggs Chaney Middle School

1901 Rainbow Drive
Silver Spring, Maryland 20905

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 Briggs Chaney Middle School, located at 1901 Rainbow Drive in Silver Spring, Maryland 20905 (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 Provider (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 12/16/2019 and deployed seventy-six (76) 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 12/19/2019 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 National Radon Safety Board (NRSB) radon measurement provider and is a 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:

- HVAC upgrade testing

These tests were conducted to:

- Evaluate radon concentrations following the installation of a new HVAC system.

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 lower-20s and high temperatures were in the lower-40s. Maximum sustained winds ranged from 12-26 miles per hour. Average humidity was around 67%. 0.54 inches of precipitation (rain and snow) 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 pCi/L	None	N/A
≤ 4.0 pCi/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
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		
Briggs Chaney Middle School		
Test Period: 12/16/2019-12/19/2019		
Kit Number	Room / Area	Result
9339323	BLDG SERVICES	0.7
9339326	30	0.6
9339327	20	0.8
9339328	35	< 0.3
9339329	IMC WORK RM	< 0.3
9339330	40	< 0.3
9339331	IMC WORK ROOM	0.5
9339332	IMC	< 0.3
9339333	IMC	< 0.3
9339334	APR	< 0.3
9339335	COMM. LAB	< 0.3
9339336	STUDENT SERVICES	1
9339337	APR	0.6
9339338	BACK GYM	< 0.3
9339339	AUX GYM	< 0.3
9339340	AUX GYM	< 0.3
9339341	AUX GYM	< 0.3
9339342	PE OFFICE 2	0.6
9339343	PE OFFICE 1	< 0.3
9339344	GYM	0.6
9339345	GYM	0.6
9339346	LAB 6	< 0.3
9339347	11B	< 0.3
9339348	3A	1
9339349	4	< 0.3
9339350	3	< 0.3
9339351	4	0.9
9339352	5	0.6
9339353	6	0.5
9339354	7	1.6
9339355	TEAM RM A	0.6
9339356	MAIN ROOM 6B	0.5
9339357	44	0.7
9339358	9	< 0.3
9339359	42	0.6
9339360	10	< 0.3
9339361	10	< 0.3
9339362	11	< 0.3
9339363	12	< 0.3
9339364	13	0.6
9339365	14B	1.2
9339366	BACK OFFICE	< 0.3
9339367	14A	3.2
9339368	BACK OFFICE C	< 0.3
9339369	BACK OFFICE B	0.7
9339370	ACTIVITY ROOM	< 0.3
9339371	ACTIVITY ROOM	0.7
9339372	15B	< 0.3
9339373	15A	1.3
9339374	16	0.9

9339375	17B	0.7
9339376	17A	MISSING
9339377	RM 17	0.8
9339378	RM 18	0.7
9339379	RM 18	< 0.3
9339380	RM 18	0.7
9339381	RM 19	< 0.3
9339382	MAIN K	< 0.3
9339383	MAIN SSS	0.8
9339384	MAIN WORK ROOM	< 0.3
9339385	MAIN O	0.7
9339386	MAIN H	0.5
9339387	MAIN I	< 0.3
9339388	MAIN G	0.9
9339389	MAIN F	< 0.3
9339390	MAIN F	0.6
9339391	MAIN E	1
9339392	MAIN IDA	0.8
9339393	MAIN D CONFERENCE	0.7
9339394	MAIN C	0.6
9339395	MAIN B	0.7
9339396	MAIN D	0.7
9339397	MAIN A	0.9
9339398	RM 2	1.3
9339399	RM 1 OFFICE	0.9
9339400	1	0.6
9341370	OFFICE BLANK	0.9

Table 2- Radon Testing Results			
Briggs Chaney Middle School			
Test Period: 12/16/2019-12/19/2019			
Kit Number	QC Type	Room / Area	Result
9339390	D	MAIN F	0.6
9339380	D	RM 18	0.7
9339379	FB	RM 18	<0.3
9339371	D	ACTIVITY ROOM	0.7
9339361	D	10	<0.3
9339360	FB	10	<0.3
9339351	D	4	0.9
9339339	D	AUX GYM	<0.3
9339341	FB	AUX GYM	<0.3
9339331	D	IMC WORK ROOM	0.5
9341377	TRANSIT BLANK	NA	0.5
9341379	TRANSIT BLANK	NA	< 0.3
9341380	TRANSIT BLANK	NA	< 0.3
9341398	TRANSIT BLANK	NA	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
BRIGGS CHANEY MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9339341		2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339400	1	2019-12-16 @ 12:00 pm	2019-12-19 @ 1:00 pm	0.6 ± 0.3	2019-12-23
9339360	10	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339361	10	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339362	11	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339347	11B	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339363	12	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339364	13	2019-12-16 @ 2:00 pm	2019-12-19 @ 1:00 pm	0.6 ± 0.3	2019-12-23
9339367	14A	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	3.2 ± 0.4	2019-12-23
9339365	14B	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	1.2 ± 0.3	2019-12-23
9339373	15A	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	1.3 ± 0.3	2019-12-23
9339372	15B	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339374	16	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.9 ± 0.4	2019-12-23
9339375	17B	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.3	2019-12-23
9339327	20	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	0.8 ± 0.4	2019-12-23
9339350	3	2019-12-16 @ 3:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339326	30	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	0.6 ± 0.3	2019-12-23
9339328	35	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339348	3A	2019-12-16 @ 3:00 pm	2019-12-19 @ 1:00 pm	1.0 ± 0.4	2019-12-23
9339351	4	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.9 ± 0.4	2019-12-23
9339349	4	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339330	40	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339359	42	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.3	2019-12-23
9339357	44	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.3	2019-12-23
9339352	5	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.3	2019-12-23
9339353	6	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.5 ± 0.4	2019-12-23
9339354	7	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	1.6 ± 0.4	2019-12-23
9339358	9	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339370	ACTIVITY ROOM	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339371	ACTIVITY ROOM	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.4	2019-12-23
9339337	APR	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.4	2019-12-23
9339334	APR	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339340	AUX GYM	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339339	AUX GYM	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339338	BACK GYM	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339366	BACK OFFICE	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339369	BACK OFFICE B	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.4	2019-12-23

Radon test result report for:
BRIGGS CHANEY MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9339368	BACK OFFICE C	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339323	BLDG SERVICES	2019-12-16 @ 4:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.3	2019-12-23
9339335	COMM. LAB	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339345	GYM	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.3	2019-12-23
9339344	GYM	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.4	2019-12-23
9339333	IMC	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339332	IMC	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339329	IMC WORK RM	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339331	IMC WORK ROOM	2019-12-16 @ 4:00 pm	2019-12-19 @ 1:00 pm	0.5 ± 0.3	2019-12-23
9339346	LAB 6	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339397	MAIN A	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.9 ± 0.4	2019-12-23
9339395	MAIN B	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.7 ± 0.3	2019-12-23
9339394	MAIN C	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.3	2019-12-23
9339396	MAIN D	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.7 ± 0.4	2019-12-23
9339393	MAIN D CONFERENCE	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.7 ± 0.4	2019-12-23
9339391	MAIN E	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	1.0 ± 0.4	2019-12-23
9339390	MAIN F	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.3	2019-12-23
9339389	MAIN F	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9339388	MAIN G	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.9 ± 0.4	2019-12-23
9339386	MAIN H	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.5 ± 0.4	2019-12-23
9339387	MAIN I	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9339392	MAIN IDA	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.8 ± 0.3	2019-12-23
9339382	MAIN K	2019-12-16 @ 1:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339385	MAIN O	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.7 ± 0.4	2019-12-23
9339356	MAIN ROOM 6B	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.5 ± 0.3	2019-12-23
9339383	MAIN SSS	2019-12-16 @ 1:00 pm	2019-12-19 @ 12:00 pm	0.8 ± 0.4	2019-12-23
9339384	MAIN WORK ROOM	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9339343	PE OFFICE 1	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339342	PE OFFICE 2	2019-12-16 @ 3:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.4	2019-12-23
9339399	RM 1 OFFICE	2019-12-16 @ 12:00 pm	2019-12-19 @ 12:00 pm	0.9 ± 0.3	2019-12-23
9339377	RM 17	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.8 ± 0.3	2019-12-23
9339380	RM 18	2019-12-16 @ 1:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.4	2019-12-23
9339378	RM 18	2019-12-16 @ 1:00 pm	2019-12-19 @ 12:00 pm	0.7 ± 0.3	2019-12-23
9339379	RM 18	2019-12-16 @ 1:00 pm	2019-12-19 @ 12:00 pm	< 0.3	2019-12-23
9339381	RM 19	2019-12-16 @ 1:00 pm	2019-12-19 @ 1:00 pm	< 0.3	2019-12-23
9339398	RM 2	2019-12-16 @ 1:00 pm	2019-12-19 @ 1:00 pm	1.3 ± 0.3	2019-12-23
9339336	STUDENT SERVICES	2019-12-16 @ 4:00 pm	2019-12-19 @ 12:00 pm	1.0 ± 0.3	2019-12-23

December 23, 2019

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
BRIGGS CHANEY MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9339355	TEAM RM A	2019-12-16 @ 2:00 pm	2019-12-19 @ 12:00 pm	0.6 ± 0.3	2019-12-23

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 193598

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

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0815 Time Stop: 0815

(Group 1)

Device No.'s: (20) Char. Bags-

9340001 thru 9340020

55

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0829 Time Stop: 0820

(Group 2)

Device No.'s: (20) Char. Bags-

9340021 thru 9340040

54

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0825 Time Stop: 0825

(Group 3)

Device No.'s: (20) Char. Bags-

9340041 thru 9340060

53

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

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
9340067	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 \pm 2.4 D	2020-01-03
9340035	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	22.5 \pm 2.3 D	2020-01-03
9340003	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.2 \pm 2.4 D	2020-01-03
9340089	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	23.3 \pm 2.3 D	2020-01-03
9340072	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	18.3 \pm 2.0 D	2020-01-03
9340040	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 \pm 2.6 D	2020-01-03
9340008	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.8 \pm 2.5 D	2020-01-03
9340094	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.7 \pm 2.5 D	2020-01-03
9340099	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.5 \pm 2.6 D	2020-01-03
9340077	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.2 \pm 2.5 D	2020-01-03
9340045	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.7 \pm 2.4 D	2020-01-03
9340013	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.9 \pm 2.6 D	2020-01-03
9340018	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	29.1 \pm 2.8 D	2020-01-03
9341704	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 \pm 2.4 D	2020-01-03
9340050	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.2 \pm 2.6 D	2020-01-03
9340023	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.2 \pm 2.7 D	2020-01-03
9341709	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.5 \pm 2.4 D	2020-01-03
9340055	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.8 \pm 2.6 D	2020-01-03
9340060	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 \pm 2.5 D	2020-01-03
9340028	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.9 \pm 2.3 D	2020-01-03
9341714	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.3 \pm 2.7 D	2020-01-03
9340082	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.4 \pm 2.6 D	2020-01-03
9340065	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.2 \pm 2.4 D	2020-01-03
9340033	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.2 \pm 2.5 D	2020-01-03
9341719	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.7 \pm 2.5 D	2020-01-03
9340001	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.3 \pm 2.5 D	2020-01-03
9340087	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.8 \pm 2.4 D	2020-01-03
9340070	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	19.5 \pm 2.4 D	2020-01-03
9340038	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.7 \pm 2.3 D	2020-01-03
9340006	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.2 \pm 2.4 D	2020-01-03
9340092	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	31.4 \pm 2.8 D	2020-01-03
9340097	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.7 \pm 2.5 D	2020-01-03
9340075	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	29.6 \pm 2.6 D	2020-01-03
9340043	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.1 \pm 2.6 D	2020-01-03
9340011	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.8 \pm 2.5 D	2020-01-03
9340016	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.2 \pm 2.4 D	2020-01-03
9341702	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 \pm 2.5 D	2020-01-03

Radon test result report for:**S****N/A**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340048	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.5 ± 2.4 D	2020-01-03
9340021	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.7 ± 2.6 D	2020-01-03
9341707	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.8 ± 2.4 D	2020-01-03
9340053	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.8 ± 2.5 D	2020-01-03
9340058	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.5 ± 2.7 D	2020-01-03
9340026	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.9 ± 2.4 D	2020-01-03
9341712	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.3 ± 2.4 D	2020-01-03
9340080	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340063	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.8 ± 2.5 D	2020-01-03
9340031	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.9 ± 2.4 D	2020-01-03
9341717	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.7 ± 2.4 D	2020-01-03
9340085	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.5 D	2020-01-03
9340068	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.2 ± 2.5 D	2020-01-03
9340036	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.6 ± 2.3 D	2020-01-03
9340004	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.6 D	2020-01-03
9340090	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.3 ± 2.5 D	2020-01-03
9340073	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 ± 2.5 D	2020-01-03
9340041	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.6 ± 2.4 D	2020-01-03
9340009	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.1 ± 2.4 D	2020-01-03
9340095	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.2 ± 2.5 D	2020-01-03
9340100	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.5 ± 2.4 D	2020-01-03
9340078	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.0 ± 2.4 D	2020-01-03
9340046	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.0 ± 2.6 D	2020-01-03
9340014	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	21.8 ± 2.8 D	2020-01-03
9340019	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.0 ± 2.5 D	2020-01-03
9341705	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.8 ± 2.6 D	2020-01-03
9340051	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.5 ± 2.4 D	2020-01-03
9340056	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.7 ± 2.6 D	2020-01-03
9340024	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.3 ± 2.5 D	2020-01-03
9341710	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.2 ± 2.3 D	2020-01-03
9340061	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.9 ± 2.6 D	2020-01-03
9340029	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.0 ± 2.3 D	2020-01-03
9341715	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.0 ± 2.5 D	2020-01-03
9340083	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.9 ± 2.4 D	2020-01-03
9340066	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340034	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.4 ± 2.5 D	2020-01-03
9341720	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.3 ± 2.5 D	2020-01-03

Radon test result report for:**S****N/A**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340002	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.7 ± 2.5 D	2020-01-03
9340088	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.4 ± 2.5 D	2020-01-03
9340071	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.9 ± 2.4 D	2020-01-03
9340039	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.5 D	2020-01-03
9340007	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.4 D	2020-01-03
9340093	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.5 D	2020-01-03
9340098	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 ± 2.5 D	2020-01-03
9340076	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.5 D	2020-01-03
9340044	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.2 ± 2.5 D	2020-01-03
9340012	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	22.5 ± 2.2 D	2020-01-03
9340017	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.3 ± 2.5 D	2020-01-03
9341703	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.0 ± 2.5 D	2020-01-03
9340049	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.0 ± 2.5 D	2020-01-03
9340022	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.6 ± 2.6 D	2020-01-03
9341708	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.8 ± 2.8 D	2020-01-03
9340054	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.8 ± 2.5 D	2020-01-03
9340059	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.5 ± 2.6 D	2020-01-03
9340027	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.6 ± 2.5 D	2020-01-03
9341713	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.5 ± 2.5 D	2020-01-03
9340081	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	18.4 ± 2.1 D	2020-01-03
9340064	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.5 ± 2.5 D	2020-01-03
9340032	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.1 ± 2.4 D	2020-01-03
9341718	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	23.7 ± 2.4 D	2020-01-03
9340086	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.6 D	2020-01-03
9340069	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.6 ± 2.5 D	2020-01-03
9340037	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.4 ± 2.6 D	2020-01-03
9340005	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	???? DIF1	2020-01-03
9340091	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.5 ± 2.5 D	2020-01-03
9340096	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.2 ± 2.5 D	2020-01-03
9340074	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.7 ± 2.5 D	2020-01-03
9340042	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.6 ± 2.5 D	2020-01-03
9340010	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.5 ± 2.5 D	2020-01-03
9341701	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	22.9 ± 2.3 D	2020-01-03
9340047	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.7 ± 2.5 D	2020-01-03
9340015	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.4 ± 2.5 D	2020-01-03
9340020	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.1 ± 2.4 D	2020-01-03
9341706	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	31.0 ± 2.7 D	2020-01-03

January 3, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

S

N/A

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340052	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.4 ± 2.6 D	2020-01-03
9340057	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 ± 2.5 D	2020-01-03
9340025	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.1 ± 2.4 D	2020-01-03
9341711	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	22.5 ± 2.2 D	2020-01-03
9340079	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.5 D	2020-01-03
9340062	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.6 ± 2.5 D	2020-01-03
9340030	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.0 ± 2.4 D	2020-01-03
9341716	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340084	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.5 ± 2.3 D	2020-01-03

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






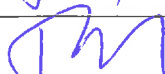
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 2

Name of Schools:

- | | |
|-------------------------------|---------------------|
| 1. Argyle M.S. | 13. Candelwood E.S. |
| 2. Banneker M.S. | 14. Drew E.S. |
| 3. Bel Pre E.S. | 15. Fallsmead E.S. |
| 4. Bells Mill E.S. | 16. Farquhar M.S. |
| 5. Bethesda Maintenance Depot | 17. Kennedy H.S. |
| 6. Beverly Farms E.S. | 18. Luxmanor E.S. |
| 7. Blake H.S. | 19. Magruder H.S. |
| 8. Dufief E.S. | 20. Redland M.S. |
| 9. Briggs Chaney M.S. | 21. Shriver E.S. |
| 10. Brookhaven E.S. | 22. Smith Center |
| 11. Burtonsville E.S. | 23. Viers Mill E.S. |
| 12. Cabin John M.S. | 24. Wheaton H.S. |

	Date	Initials
Radon Test Kits Deployed	12/16/19 to 12/17/19	
Radon Test Kits Collected	12/19/19 to 12/20/19	
Radon Test Kits Shipped to Lab*	12/20/19	
Radon Test Kits Received by Lab*	12/23/19	

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

RADON SCREENING SURVEY – FOLLOW-UP BRIGGS CHANEY MIDDLE SCHOOL

1901 Rainbow Drive,
Silver Spring, Maryland 20905

EXECUTIVE SUMMARY

Date of Test Report:	3/20/19
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	2
# Rooms \geq 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	1.4
Confirmed Rooms \geq 4.0 pCi/L US EPA Action Level	0

Summary of Sampling Events \geq 4.0 pCi/L

Room	Result (pCi/L) 2/21/19	Result (pCi/L) 3/20/19	Average Result (pCi/L)
14A	4.7	1.4	3.1
Special Service 42	---	<0.4	<0.4



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary:
Briggs Chaney Middle School
1901 Rainbow Drive,
Silver Spring, MD 20905

Date of Test Report:	3/20/2019
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:	2
# of Rooms ≥ 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	1.4

Project Status

Retesting completed: No further action at this time.



March 20, 2019

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

Re: Radon Testing Services

Location: Briggs Chaney Middle School
1901 Rainbow Drive,
Silver Spring, MD 20905

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a “short-term” 3-day radon test for Briggs Chaney Middle School, located 1901 Rainbow Drive, Silver Spring, MD 20905 (subject site).

Scope of Services:

PSI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. PSI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings. A National Radon Safety Board (NRSB) Radon Measurement Specialist (certification #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

PSI visited the site on February 25, 2019 and deployed two (2) activated charcoal (AC) radon test kit. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on February 28, 2019 to retrieve the radon sampling test kit. A floor plan map of the building with the test location is included as Attachment A of this report.

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

Evaluation of Testing Conditions:

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

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



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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 pCi/L	None	NA
≤ 4.0 pCi/L	See Attachment B	

Notes:

D -Duplicate Sample

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

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

Laboratory results and exposure data for the spike samples are also included in Attachment C. Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (703) 698-9300.

Respectfully Submitted,

INTERTEK-PSI

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

Nand Kaushik, P.E.

Department Manager, Environmental Services

Nand.Kaushik@intertek.com

Attachments:

A – Floor Plan with Test Locations

B – Table 1 – Radon Test Summary Spreadsheet

C – Laboratory Analytical Results

ATTACHMENT B

Radon Test Summary Spreadsheet

Radon Testing Results		
Briggs Chaney Middle School		
Testing period: 2/25/19 - 2/28/19		
Kit Number	Room / Area	Result (pCi/L)
3923458	Room 14A	1.4
3923454	Special Services (42)	<0.4

Table Notes:

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

ATTACHMENT C

Laboratory Analytical Results

NRPP 105011 AL
NRSB ARL0007

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

Laboratory Report for:

Property Tested: Project # 04481387-1

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

MCPS Radon Survey Briggs Chaney
1901 Rainbow Drive
Silver Spring MD 20905

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
3220608	3923458	02/25/2019 11:50 am 02/28/2019 11:41 am	Floor Main Room 14A	1.4
3220609	3923454	02/25/2019 11:50 am 02/28/2019 11:41 am	Floor Main Room Special Services (42)	< 0.4

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

Distributed by: Intertek-PSI (VA)

Date Received: 03/04/2019 Date Logged: 03/04/2019 Date Analyzed: 03/04/2019 Date Reported: 03/05/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

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

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary: Briggs Chaney Middle School

1901 Rainbow Drive,
Silver Spring, MD 20905

Date of Test Report:	02/21/2019
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:	79
# of Rooms ≥ 4.0 pCi/L:	1
Low Value:	< 0.4
High Value:	4.7
Rooms with Results ≥ 4.0 pCi/L:	14A

Project Status

Initial testing complete: Re-test needed for results ≥ 4.0 pCi/L.
Missing or compromised samples need re-test.



February 21, 2019

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

Re: Radon Testing Services

Location: Briggs Chaney Middle School
1901 Rainbow Drive,
Silver Spring, MD 20905

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a "short-term" 3-day radon test for Briggs Chaney Middle School, located 1901 Rainbow Drive, Silver Spring, MD 20905 (subject site).

Scope of Services:

PSI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. PSI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings. A National Radon Safety Board (NRSB) Radon Measurement Specialist (certification #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

PSI visited the site on November 13, 2018 and deployed ninety-nine (99) activated charcoal (AC) radon test kits. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on November 16, 2018 to retrieve the radon sampling test kits. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

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



Evaluation of Testing Conditions:

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

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

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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 pCi/L	14A	4.7
≤ 4.0 pCi/L	See Attachment B	

Notes:

D -Duplicate Sample

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

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

Laboratory results and exposure data for the spike samples are also included in Attachment C. Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (703) 698-9300.



Respectfully Submitted,

INTERTEK-PSI

Nand Kaushik, P.E.
Department Manager, Environmental Services
Nand.Kaushik@intertek.com

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

ATTACHMENT B

Radon Test Summary Spreadsheet

Radon Testing Results		
Briggs Chaney Middle School		
Testing period: 11/13/18 - 11/16/18		
Kit Number	Room / Area	Result (pCi/L)
3916272	1	<0.4
3918105	2	1.7
3918063	3	<0.4
3918067	3A	<0.4
3918062	4	<0.4
3918061	5	<0.4
3918100	6	<0.4
3918098	7	0.4
3918095	8	0.5
3918094	9	<0.4
3918092	10	<0.4
3918109	11	<0.4
3918108	12	<0.4
3918102	13	<0.4
3918129	16	<0.4
3918128	17	0.5
3918127	18	0.4
3918126	19	<0.4
3918087	20	0.9
3918088	39	<0.4
3916274	1 Office	2.3
3918091	11B	0.4
3918150	14A	4.7
3918110	14A Calm Room	<0.4
3918080	14B	0.6
3918106	14B Calm Room	1.8
3918078	14B Office 1	1.8
3918073	14B Office 2	2.1
3918072	15A	0.6
3918076	15A Office 1	0.8
3918077	15A Office 2	1.9
3918149	15B	0.7
3918075	15B Office 1	1.2
3918147	15B Office 2	0.8
3918074	16 Office	0.4
3918130	17 Office	1.1
3918085	Boy's Locker Room	1.5
3918082	Boy's Locker Room	<0.4
3881212	Bridge Gym	0.4
3918104	Bridge Office 1	0.4
3918079	Bridge Office 2	1.9
3918146	Bridge Office 3	3.0
3918071	Building Services	0.6

Radon Testing Results		
Briggs Chaney Middle School		
Testing period: 11/13/18 - 11/16/18		
Kit Number	Room / Area	Result (pCi/L)
3918151	Building Services	1.8
3918144	Building Services	<0.4
3916273	Cafeteria/APR	1.0
3918086	Cafeteria/APR	1.2
3918093	Computer Lab 6	<0.4
3918081	Computer Lab 7	<0.4
3918002	Conference D	<0.4
3918064	Dance Studio	<0.4
3918069	Exercise Room	0.5
3918090	Girl's Locker Room	1.6
3918083	Girl's Locker Room	<0.4
3918065	Gym	<0.4
3918066	Gym	<0.4
3918143	Health Office	<0.4
3918134	IDA	1.5
3918152	Kitchen	<0.4
--	Media Studio (MISSED)	--
3918124	Media Center	<0.4
3918125	Media Center	<0.4
3918122	Media Center Work Room	<0.4
3918123	Media Center Work Room Office	0.9
3918003	Office A	0.6
3918103	Office B	<0.4
3918145	Office C	0.6
3918131	Office D	0.4
3918132	Office E	<0.4
3916202	Office F	1.2
3918001	Office G	0.9
3918157	Office H	0.4
3918158	Office I	0.5
3918155	Office J	1.2
3918160	Office K	0.7
3916198	Office M	1.1
3916196	Office N	1.5
3918159	Office O	0.9
3918084	PE Men's Office	1.1
3918070	PE Women's office	<0.4
3918154	Security Office	0.8
--	Special Services (MISSED)	--
3918141	SSS	0.5
3918101	Student Services	1.3
3918097	TM 6A	1.5
3918099	TM 6B	<0.4

Radon Testing Results		
Briggs Chaney Middle School		
Testing period: 11/13/18 - 11/16/18		
Kit Number	Room / Area	Result (pCi/L)
3918153	TV Studio	<0.4
3918135	Work Room	0.4

Radon Testing Results		
Briggs Chaney Middle School		
Testing period: 11/13/18 - 11/16/18		
Kit Number	QC Type	Result (pCi/L)
3916271	1 (D)	1.7
3918096	8 (D)	<0.4
3918148	14B Office 2 (D)	1.0
3918121	18 (D)	0.5
3918107	Bridge Office 3 (D)	0.6
3916276	Cafeteria/APR (D)	0.4
3918068	Gym (D)	0.8
3918156	Office K (D)	<0.4
3918142	SSS (D)	<0.4
3916034	Field Blank	<0.4
3918187	Field Blank	<0.4
3918021	Office Blank	<0.4
3916031	Trip Blank	0.6

Table Notes:

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

ATTACHMENT C

Laboratory Analytical Results

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

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

Laboratory Report for:

Property Tested: Project # 04481387-1

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


MCPS Radon Survey
Briggs Chaney Middle School
Silver Spring MD 20905

Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
2395261	3918086	11/13/2018 1:59 pm	11/16/2018 10:42 am	Briggs Chaney Middle School Flr 1 Rm Café/APR		1.2
2395262	3918071	11/13/2018 2:00 pm	11/16/2018 10:31 am	Briggs Chaney Middle School Flr 1 Rm Bldg Srvs.		0.6
2395263	3918152	11/13/2018 2:10 pm	11/16/2018 10:41 am	Briggs Chaney Middle School Flr 1 Rm Kitchen		< 0.4
2395264	3918101	11/13/2018 2:11 pm	11/16/2018 10:42 am	Briggs Chaney Middle School Flr 1 Rm Student S		1.3
2395265	3918144	11/13/2018 2:15 pm	11/16/2018 10:42 am	Briggs Chaney Middle School Flr 1 Rm Building S		< 0.4
2395266	3918151	11/13/2018 2:19 pm	11/16/2018 10:44 am	Briggs Chaney Middle School Flr 1 Rm Building S		1.8
2395267	3918105	11/13/2018 2:19 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Floor 1 Room 2		1.7
2395268	3916272	11/13/2018 2:19 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Floor 1 Room 1		< 0.4
2395269	3916271	11/13/2018 2:19 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Floor 1 Room 1		1.7
2395270	3918081	11/13/2018 2:16 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Flr 2 Rm Comp 7		< 0.4
2395271	3918087	11/13/2018 2:17 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Flr 2 Rm 20		0.9

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Report Reviewed By: 

Report Approved By: 

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NRPP 103216 AL
NRSB ARL0017

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
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Laboratory Report for:

Property Tested: Project # 04481387-1

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


MCPS Radon Survey
Briggs Chaney Middle School
Silver Spring MD 20905


Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
2395272	3918088	11/13/2018 2:18 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Flr 2 Rm 39		< 0.4
2395273	3916274	11/13/2018 2:25 pm	11/16/2018 10:45 am	Briggs Chaney Middle School Flr 1 Rm 1 Office		2.3
2395274	3916034	11/13/2018 12:09 pm	11/16/2018 10:45 am	Briggs Chaney Middle School		< 0.4
2395275	3918187	11/13/2018 12:09 pm	11/16/2018 10:45 am	Briggs Chaney Middle School		< 0.4
2395276	3918021	11/13/2018 6:00 am	11/16/2018 10:45 am	Briggs Chaney Middle School		< 0.4
2395277	3916031	11/13/2018 6:00 am	11/16/2018 10:45 am	Briggs Chaney Middle School		0.6
2395278	3916196	11/13/2018 12:10 pm	11/16/2018 9:39 am	Briggs Chaney Middle School Flr 1 Rm Office N		1.5
2395279	3916198	11/13/2018 12:11 pm	11/16/2018 9:39 am	Briggs Chaney Middle School Flr 1 Rm Office M		1.1
2395280	3918103	11/13/2018 12:12 pm	11/16/2018 9:40 am	Briggs Chaney Middle School Flr 1 Rm Office B		< 0.4
2395281	3918143	11/13/2018 12:14 pm	11/16/2018 9:42 am	Briggs Chaney Middle School Flr 1 Rm Health Off		< 0.4
2395282	3918145	11/13/2018 12:05 pm	11/16/2018 9:42 am	Briggs Chaney Middle School Flr 1 Rm Office C		0.6

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MCPS Radon Survey
Briggs Chaney Middle School
Silver Spring MD 20905


Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
2395283	3918131	11/13/2018	12:16 pm	11/16/2018	9:41 am	Briggs Chaney Middle School Flr 1 Rm Office D	0.4
2395284	3918141	11/13/2018	12:18 pm	11/16/2018	9:42 am	Briggs Chaney Middle School Flr 1 Rm SSS	0.5
2395285	3918142	11/13/2018	12:18 pm	11/16/2018	9:42 am	Briggs Chaney Middle School Flr 1 Rm SSS	< 0.4
2395286	3918002	11/13/2018	12:21 pm	11/16/2018	9:43 am	Briggs Chaney Middle School Flr 1 Rm Conf. D	< 0.4
2395287	3918134	11/13/2018	12:22 pm	11/16/2018	9:44 am	Briggs Chaney Middle School Flr 1 Rm IDA	1.5
2395288	3918132	11/13/2018	12:23 pm	11/16/2018	9:45 am	Briggs Chaney Middle School Flr 1 Rm Office E	< 0.4
2395289	3916202	11/13/2018	12:30 pm	11/16/2018	9:45 am	Briggs Chaney Middle School Flr 1 Rm Office F	1.2
2395290	3918001	11/13/2018	12:24 pm	11/16/2018	9:45 am	Briggs Chaney Middle School Flr 1 Rm Office G	0.9
2395291	3918157	11/13/2018	12:25 pm	11/16/2018	9:46 am	Briggs Chaney Middle School Flr 1 Rm Office H	0.4
2395292	3918158	11/13/2018	12:26 pm	11/16/2018	9:46 am	Briggs Chaney Middle School Flr 1 Rm Office I	0.5
2395293	3918159	11/13/2018	12:27 pm	11/16/2018	10:46 am	Briggs Chaney Middle School Flr 1 Rm Office O	0.9

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MCPS Radon Survey
Briggs Chaney Middle School
Silver Spring MD 20905

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
2395294	3918155	11/13/2018	12:28 pm	11/16/2018	9:46 am	Briggs Chaney Middle School Flr 1 Rm Office J	1.2
2395295	3918156	11/13/2018	12:29 pm	11/16/2018	9:50 am	Briggs Chaney Middle School Flr 1 Rm Office K	< 0.4
2395296	3918160	11/13/2018	12:29 pm	11/16/2018	9:51 am	Briggs Chaney Middle School Flr 1 Rm Office K	0.7
2395297	3918153	11/13/2018	12:30 pm	11/16/2018	9:51 am	Briggs Chaney Middle School Flr 1 Rm Comm TV	< 0.4
2395298	3918154	11/13/2018	12:33 pm	11/16/2018	9:56 am	Briggs Chaney Middle School Flr 1 Rm Q Security	0.8
2395299	3918124	11/13/2018	12:34 pm	11/16/2018	9:55 am	Briggs Chaney Middle School Flr 1 Media Center	< 0.4
2395300	3918125	11/13/2018	12:34 pm	11/16/2018	9:55 am	Briggs Chaney Middle School Flr 1 Media Center	< 0.4
2395301	3918123	11/13/2018	12:35 pm	11/16/2018	9:57 am	Briggs Chaney Middle School Flr 1 Media Center	0.9
2395302	3918122	11/13/2018	12:37 pm	11/16/2018	9:58 am	Briggs Chaney Middle School Flr 1 Media MW	< 0.4
2395303	3918126	11/13/2018	12:44 pm	11/16/2018	9:59 am	Briggs Chaney Middle School Flr 1 Rm 19	< 0.4
2395304	3918127	11/13/2018	12:45 pm	11/16/2018	10:00 am	Briggs Chaney Middle School Flr 1 Rm 18	0.4

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MCPS Radon Survey
Briggs Chaney Middle School
Silver Spring MD 20905

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
2395305	3918121	11/13/2018	12:46 pm	11/16/2018	10:00 am	Briggs Chaney Middle School Flr 1 Rm 18	0.5
2395306	3918128	11/13/2018	12:46 pm	11/16/2018	10:04 am	Briggs Chaney Middle School Flr 1 Rm 17	< 0.4
2395307	3918129	11/13/2018	12:47 pm	11/16/2018	10:04 am	Briggs Chaney Middle School Flr 1 Rm 16	< 0.4
2395308	3918130	11/13/2018	12:08 pm	11/16/2018	10:05 am	Briggs Chaney Middle School Flr 1 Rm 17 Office	1.1
2395309	3918074	11/13/2018	12:09 pm	11/16/2018	10:05 am	Briggs Chaney Middle School Flr 1 Rm 16 Office	0.4
2395310	3918072	11/13/2018	12:52 pm	11/16/2018	10:06 am	Briggs Chaney Middle School Flr 1 Rm 15A	0.6
2395311	3918149	11/13/2018	12:53 pm	11/16/2018	10:06 am	Briggs Chaney Middle School Flr 1 Rm 15B	0.7
2395312	3918150	11/13/2018	12:53 pm	11/16/2018	10:09 am	Briggs Chaney Middle School Flr 1 Rm 14A	4.7
2395313	3918080	11/13/2018	12:54 pm	11/16/2018	10:09 am	Briggs Chaney Middle School Flr 1 Rm 14B	0.6
2395314	3918076	11/13/2018	12:55 pm	11/16/2018	10:05 am	Briggs Chaney Middle School Flr 1 Rm 15A Office	0.8
2395315	3918077	11/13/2018	12:55 pm	11/16/2018	10:05 am	Briggs Chaney Middle School Flr 1 Rm 15A Office	1.9

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MCPS Radon Survey
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Silver Spring MD 20905

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
2395316	3918075	11/13/2018	12:56 pm	11/16/2018	10:06 am	Briggs Chaney Middle School Flr 1 Rm 15B Office	1.2
2395317	3918078	11/13/2018	12:58 pm	11/16/2018	10:11 am	Briggs Chaney Middle School Flr 1 Rm 14B Office	1.8
2395318	3918073	11/13/2018	12:58 pm	11/16/2018	10:11 am	Briggs Chaney Middle School Flr 1 Rm 14B Office	2.1
2395319	3918148	11/13/2018	12:58 pm	11/16/2018	10:05 am	Briggs Chaney Middle School Flr 1 Rm 14B Office	1.0
2395320	3918104	11/13/2018	1:05 pm	11/16/2018	10:04 am	Briggs Chaney Middle School Flr 1 Rm Bridge Off	0.4
2395321	3918110	11/13/2018	1:06 pm	11/16/2018	10:13 am	Briggs Chaney Middle School Flr 1 Rm 14A Calm	< 0.4
2395322	3918106	11/13/2018	1:07 pm	11/16/2018	10:13 am	Briggs Chaney Middle School Flr 1 Rm 14B Calm	1.8
2395323	3918079	11/13/2018	1:08 pm	11/16/2018	10:04 am	Briggs Chaney Middle School Flr 1 Bridge Office 2	1.9
2395324	3918107	11/13/2018	1:09 pm	11/16/2018	10:05 am	Briggs Chaney Middle School Flr 1 Bridge Office 3	0.6
2395325	3918146	11/13/2018	1:09 pm	11/16/2018	10:00 am	Briggs Chaney Middle School Flr 1 Bridge Office 3	3.0
2395326	3918102	11/13/2018	1:14 pm	11/16/2018	9:59 am	Briggs Chaney Middle School Flr 1 Rm 13	< 0.4

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2395327	3918108	11/13/2018 1:19 pm	11/16/2018 10:15 am	Briggs Chaney Middle School Flr 1 Rm 12		< 0.4
2395328	3918109	11/13/2018 1:20 pm	11/16/2018 10:17 am	Briggs Chaney Middle School Flr 1 Rm 11		< 0.4
2395329	3918091	11/13/2018 1:20 pm	11/16/2018 10:15 am	Briggs Chaney Middle School Flr 1 Rm 11B		0.4
2395330	3918092	11/13/2018 1:21 pm	11/16/2018 10:18 am	Briggs Chaney Middle School Flr 1 Rm 10		< 0.4
2395331	3918093	11/13/2018 1:22 pm	11/16/2018 10:19 am	Briggs Chaney Middle School Flr 1 Rm Comp 6		< 0.4
2395332	3918094	11/13/2018 1:23 pm	11/16/2018 10:20 am	Briggs Chaney Middle School Floor 1 Room 9		< 0.4
2395333	3918095	11/13/2018 1:24 pm	11/16/2018 10:21 am	Briggs Chaney Middle School Floor 1 Room 8		0.5
2395334	3918096	11/13/2018 1:24 pm	11/16/2018 10:22 am	Briggs Chaney Middle School Floor 1 Room 8		< 0.4
2395335	3918099	11/13/2018 1:25 pm	11/16/2018 10:22 am	Briggs Chaney Middle School Flr 1 Rm 6B		< 0.4
2395336	3918097	11/13/2018 1:28 pm	11/16/2018 10:22 am	Briggs Chaney Middle School Flr 1 Rm 6A		1.5
2395337	3918098	11/13/2018 1:29 pm	11/16/2018 10:22 am	Briggs Chaney Middle School Floor 1 Room 7		0.4

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Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
2395338	3918100	11/13/2018 1:30 pm	11/16/2018 10:22 am	Briggs Chaney Middle School Floor 1 Room 6		< 0.4
2395339	3918061	11/13/2018 1:33 pm	11/16/2018 10:24 am	Briggs Chaney Middle School Floor 1 Room 5		< 0.4
2395340	3918062	11/13/2018 1:34 pm	11/16/2018 10:24 am	Briggs Chaney Middle School Floor 1 Room 4		< 0.4
2395341	3918063	11/13/2018 1:35 pm	11/16/2018 10:25 am	Briggs Chaney Middle School Floor 1 Room 3		< 0.4
2395342	3918067	11/13/2018 1:37 pm	11/16/2018 10:27 am	Briggs Chaney Middle School Flr 1 Rm 3A		< 0.4
2395343	3918065	11/13/2018 1:42 pm	11/16/2018 10:32 am	Briggs Chaney Middle School Flr 1 Rm Gym		< 0.4
2395344	3918066	11/13/2018 1:42 pm	11/16/2018 10:35 am	Briggs Chaney Middle School Flr 1 Rm Gym		< 0.4
2395345	3918068	11/13/2018 1:43 pm	11/16/2018 10:32 am	Briggs Chaney Middle School Flr 1 Rm Gym		0.8
2395346	3918064	11/13/2018 1:44 pm	11/16/2018 10:36 am	Briggs Chaney Middle School Flr 1 Rm Aux Gym		< 0.4
2395347	3918069	11/13/2018 1:48 pm	11/16/2018 10:36 am	Briggs Chaney Middle School Flr 1 Rm Aux Gym		0.5
2395348	3918070	11/13/2018 1:50 pm	11/16/2018 10:33 am	Briggs Chaney Middle School Flr 1 Rm PE Wome		< 0.4

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Fairfax VA 22031


MCPS Radon Survey
Briggs Chaney Middle School
Silver Spring MD 20905


Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
2395349	3918084	11/13/2018 1:51 pm	11/16/2018 10:33 am	Briggs Chaney Middle School Flr 1 PE Men's Offic		1.1
2395350	3918083	11/13/2018 1:51 pm	11/16/2018 10:07 am	Briggs Chaney Middle School Flr 1 Girl's Locker R		< 0.4
2395351	3918090	11/13/2018 1:51 pm	11/16/2018 10:37 am	Briggs Chaney Middle School Flr 1 Girl's Locker R		1.6
2395352	3918082	11/13/2018 1:52 pm	11/16/2018 10:35 am	Briggs Chaney Middle School Flr 1 Boy's Locker R		< 0.4
2395353	3918085	11/13/2018 1:52 pm	11/16/2018 10:30 am	Briggs Chaney Middle School Flr 1 Boy's Locker R		1.5
2395354	3916273	11/13/2018 1:59 pm	11/16/2018 10:30 am	Briggs Chaney Middle School Flr 1 Café/APR		1.0
2395355	3916276	11/13/2018 1:59 pm	11/16/2018 10:31 am	Briggs Chaney Middle School Flr 1 Café/APR		0.4
2395356	3918135	11/13/2018 12:13 pm	11/16/2018 9:41 am	Not Indicated		0.4
2395357	3918147	11/13/2018 1:09 pm	11/16/2018 10:00 am	Briggs Chaney Middle School 15B Office 2		0.8
2395358	3918003	11/13/2018 12:09 pm	11/16/2018 9:38 am	Briggs Chaney Middle School Office A		0.6

Comment: AMENDED REPORT for 3918146, 47 and 3918003 on 2/5/2019 to include the dates and times the tests began and ended and the areas tested. To complete 3918135 please supply missing dates, times and test locations.

Distributed by: Intertek-PSI (VA)

Date Received: 11/19/2018 Date Logged: 11/19/2019 Date Analyzed: 11/20/2018 Date Reported: 01/30/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

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

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

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

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

Laboratory Report for:

Property Tested: Project # 04481387-1

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


MCPS Radon Survey
Briggs Chaney Middle School
MD 20905

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2393082	3881212	11/13/2018 2:15 pm 11/16/2018 10:08 am	Bldg. Briggs Chaney Middle School Flr 1 Rm Bridg	0.4

Comment: To complete your test for device 3918135, please provide in writing, the date and time the test began and ended. A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 11/18/2018 Date Logged: 11/18/2018 Date Analyzed: 11/19/2018 Date Reported: 01/02/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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

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

NRPP 105011 AL
NRSB ARL0007
Ohio RL41

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

Laboratory Report for:

Property Tested:

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

MCPS Radon Survey
4514 Taylorsville Road
Dayton OH 45424

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

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

Test Performed By: Unknown

Distributed by: Intertek-PSI (VA)

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

Report Reviewed By: 

Report Approved By: 

Disclaimer:

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

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT Intertek - PSI

Job Number 187732

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

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

Date Start: _____ Date Stop: _____

Time Start: 0947 Time Stop: 0947

Time Start: _____ Time Stop: _____

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

Device No.'s: _____

3926831 thru 3926840

G2 Left

Date Start: _____ Date Stop: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Device No.'s: _____

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

Chain of Custody

Project Name: MCPS Radon Survey 2018

Name of Schools:

- | | | |
|---------------------|----------------------|--------------------|
| 1. Highland View ES | 6. EB Lee MS | 11. Cannon Rd ES |
| 2. Kemp Mill ES | 7. Forest Knolls ES | 12. Cloverly ES |
| 3. Sligo Creek ES | 8. Galway ES | 13. Springbrook HS |
| 4. Highland ES | 9. Wheaton HS | |
| 5. Kennedy HS | 10. Briggs Chaney MS | |

	Date	Initials
Radon Test Kits Deployed	11/13/2018	NL
Radon Test Kits Sampled	11/16/2018	NL
Radon Test Kits Shipped to Lab*	11/16/2018	NL
Radon Test Kits Received by Lab*	11/17/2018; 11/18/2018; 11/20/2018	NL

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

RADON SCREENING SURVEY – FOLLOW-UP BRIGGS CHANEY MS SCHOOL

1901 Rainbow Drive, Silver Spring, Maryland 20905

EXECUTIVE SUMMARY

Date of Test Report:	3/10/16 (Follow-Up)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	5
# Rooms \geq 4.0 pCi/L:	0
Low Value:	<0.3
High Value:	1.0
Confirmed Rooms \geq 4.0 pCi/L US EPA Action Level	0

Summary of Sampling Events \geq 4.0 pCi/L

Room	Result (pCi/L) 1/11/16 (Initial)	Result (pCi/L) 3/10/16 (Follow-Up)	Average Result (pCi/L)
13	--- Missing	<0.3	<0.3
13	--- Missing	<0.3	<0.3
Financial Office	--- Missing	0.9	0.9
Gym	--- Missing	<0.3	<0.3
Special Services	--- Missing	0.9	0.9
Staff Lounge	--- Missing	0.7	0.7



MCPS RADON TESTING

Executive Summary: Briggs Chaney Middle School

Date of Test Report:	3/10/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	5
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.0

Project Status:

Retesting completed; no further action at this time.



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

March 10, 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 # 12146341.29

Location: Briggs Chaney Middle School
1901 Rainbow Drive
Silver Spring, MD 20904

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) pursuant to completing a “short-term” 3 day radon test for the Briggs Chaney Middle School, located at 1901 Rainbow Drive in Silver Spring, Maryland 20904 (subject site).

Scope of Services:

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Safety Board (NRSB) Radon Measurement Specialist (certification #14SS056) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

KCI visited the site on February 22, 2016 and deployed nine (9) 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 25, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

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

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

KCI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. Note that strong storms and heavy rainfall were recorded during the test period. The unusual weather conditions may have resulted in atypical radon test results for this facility.

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 pCi/L	none	n/a
< 4.0 pCi/L	See Attachment B	

Notes:

D- Duplicate sample

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

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

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (410) 316-7800.

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank*

PM- Project Manager

QC- Quality Control

*Office blanks were submitted at a rate of 1% for all samples deployed in Phase 9 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 02/22/16-02/25/16		
Kit Number	Room / Area	Result
7729789	13	< 0.3
7730086	13	< 0.3
7730081	FINANCIAL OFFICE	0.9
7730079	GYM	< 0.3
7730080	* GYM (Missing)	-
7730078	SPECIAL SERVICES	0.9
7730082	STAFF LOUNGE	0.7

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 02/22/16-02/25/16		
Kit Number	QC Type	Result
7721408	D (STAFF LOUNGE)	1.0
7730077	FB (STAFF LOUNGE)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 8, 2016
**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

**BRIGGS CHANEY MIDDLE SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7729789	13	2016-02-22 @ 11:00 am	2016-02-25 @ 12:00 pm	< 0.3	2016-02-29
7730086	13	2016-02-22 @ 11:00 am	2016-02-25 @ 12:00 pm	< 0.3	2016-02-29
7730081	FINANCIAL OFFICE	2016-02-22 @ 11:00 am	2016-02-25 @ 11:00 am	0.9 ± 0.3	2016-02-29
7730080	GYM	@	@		
7730079	GYM	2016-02-22 @ 11:00 am	2016-02-25 @ 12:00 pm	< 0.3	2016-02-29
7730078	SPECIAL SERVICES	2016-02-22 @ 11:00 am	2016-02-25 @ 11:00 am	0.9 ± 0.3	2016-02-29
7721408	STAFF LOUNGE	2016-02-22 @ 11:00 am	2016-02-25 @ 12:00 pm	1.0 ± 0.3	2016-02-29
7730077	STAFF LOUNGE	2016-02-22 @ 11:00 am	2016-02-25 @ 12:00 pm	< 0.3	2016-02-29
7730082	STAFF LOUNGE	2016-02-22 @ 11:00 am	2016-02-25 @ 12:00 pm	0.7 ± 0.3	2016-02-29

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

March 9, 2016

**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

MCPS

Phase 9 Office Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7712568	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7712584	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719460	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719481	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719497	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719498	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29

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

March 9, 2016

**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

MCPS

Phase 9 Office Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7731626	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01
7731633	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01
7735204	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01

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

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

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

February
15,
2016

**** LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:
MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCF Technologies Inc. Job Number 173704

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

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

Date Start: _____ Date Stop: _____

Time Start: 0926 Time Stop: 0926

Time Start: _____ Time Stop: _____

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

Device No.'s: _____

7718281, 7718282, 7718291,

7718288, 7718289, 7718273

3 Left

Date Start: _____ Date Stop: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Device No.'s: _____

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 9

Name of Schools:

- | | | |
|--------------------------|---------------------------|------------------------|
| 1. Rocking Horse Road ES | 16. Broad Acres ES | 31. Rosa Parks MS |
| 2. Rockwell ES | 17. Belmont ES | 32. Rosemary Hills ES |
| 3. Oakland Terrace ES | 18. Emory Grove Center | 33. Sequoyah ES |
| 4. Rosemont ES | 19. Forest Knolls ES | 34. Damascus HS |
| 5. Beall ES | 20. Baker MS | 35. Einstein ES |
| 6. Cresthaven ES | 21. MLK MS | 36. Forest Oak MS |
| 7. Quince Orchard HS | 22. Richard Montgomery HS | 37. Hoover MS |
| 8. Smith Center | 23. Sherwood HS | 38. Julius West MS |
| 9. Ashburton ES | 24. Walter Johnson HS | 39. John F. Kennedy HS |
| 10. Bannockburn ES | 25. Diamond ES | 40. Travilah ES |
| 11. Bradley Hills ES | 26. Newport Mill MS | 41. Watkins Mill HS |
| 12. Cannon Road ES | 27. Drew ES | 42. Northwood HS |
| 13. Flora M. Singer ES | 28. Monocacy ES | 43. Lincoln Center |
| 14. Clarksburg HS | 29. Potomac ES | |
| 15. Briggs Chaney MS | 30. Rock Terrace School | |

	Date	Initials
Radon Test Kits Deployed	2/22/16	JM
Radon Test Kits Collected	2/25/16	JM
Radon Test Kits Shipped to Lab*	2/25/16	JM
Radon Test Kits Received by Lab*	2/29/16	JM

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



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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 9

Name of Schools:

- | | |
|----------------------------|-------------------------|
| 1. Banneker MS | 10. Maryvale ES |
| 2. Bethesda-Chevy Chase HS | 11. Montgomery Blair HS |
| 3. Burtonsville ES | 12. Poolesville HS |
| 4. Chevy Chase ES | 13. Rachel Carson ES |
| 5. Clopper Mill ES | 14. Stedwick ES |
| 6. Edison HS | 15. Watkins Mill ES |
| 7. Flower Hill ES | 16. Laytonsville ES |
| 8. Flower Valley ES | 17. Lincoln Center |
| 9. Greencastle ES | |

	Date	Initials
Radon Test Kits Deployed	2/23/16	JM
Radon Test Kits Collected	2/26/16	JM
Radon Test Kits Shipped to Lab*	2/26/16	JM
Radon Test Kits Received by Lab*	3/01/16	JM

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



MCPS RADON TESTING

Executive Summary: Briggs Chaney Middle School

Date of Test Report:	1/11/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	78
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.9

Project Status:

Initial testing completed; missing or compromised samples need re-test



January 11, 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 # 12146341.20

Location: Briggs Chaney Middle School
1901 Rainbow Drive
Silver Spring, MD 20905

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 Briggs Chaney Middle School, located at 1901 Rainbow Drive in Silver Spring, Maryland 20905 (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 21, 2015 and deployed ninety (90) 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 7 duplicate samples (10%), 4 field blanks (3%), and 1 office blank (1%). Prior to sampling, KCI returned 1% of the test batch to the laboratory for analysis as lab transit blanks. 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 24, 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 $\leq 65^{\circ}$ 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 during the deployment and collection of the radon test kits:

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 pCi/L	None	n/a
< 4.0 pCi/L	See Attachment B	

Notes:

D- Duplicate sample

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

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

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (410) 316-7800.

Sincerely,



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

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

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

B- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 12/21/15-12/24/15		
Kit Number	Room / Area	Result
7712951	3	< 0.3
7712971	6	0.9
7712977	5	< 0.3
7712972	7	1.1
7712973	8	0.6
7712952	9	< 0.3
7712959	10	< 0.3
7712945	11	< 0.3
7712963	12	< 0.3
7712904	16	1.1
7712931	16	0.5
7712901	17	0.9
7712909	18	0.7
7712925	19	0.6
7712969	36	< 0.3
7712993	37	< 0.3
7712990	38	< 0.3
7712980	39	< 0.3
7712981	40	< 0.3
7712970	41	< 0.3
7712958	11 B	< 0.3
7712911	* 13 (missing)	-
7712935	* 13 (missing)	-
7712932	14 A	0.6
7712940	14 B	< 0.3
7712930	15 B	1
7712929	15 B OFF	0.7
7712905	15 OFF	< 0.3
7712936	15A	1.2
7712923	17 OFFICE	0.8
7712926	17 OFFICE	1.1
7712956	3A	0.6
7712918	A	0.6
7712906	ASST PRINCIPAL	< 0.3
7712920	ASST PRINCIPAL	0.6
7712953	BUILDING SERVICE	0.6
7712994	BUILDING SERVICE	0.6
7712995	BUILDING SERVICE	0.6
7712957	CAFATERIA	0.7
7712967	CAFATERIA	< 0.3
7712966	CAFE OFFICE	0.8
7712976	COMP LAB 6	< 0.3
7712934	CONFERENCE RM	0.8
7712938	CONFERENCE RM	0.5
7712916	COUNSELOR	1
7712917	COUNSELOR	0.7

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 12/21/15-12/24/15		
Kit Number	Room / Area	Result
7712924	COUNSELOR	0.8
7712941	COUNSELOR	0.8
7712954	DANCE STUDIO	< 0.3
7712979	DANCE STUDIO	< 0.3
7712946	EXERCISE RM	0.6
7712974	EXERCISE RM	< 0.3
7712948	* FINANCIAL OFFICE (missing)	-
7712949	GYM	< 0.3
7712968	GYM	< 0.3
7712989	GYM	< 0.3
7712947	* GYM (missing)	-
7712991	LAB ROOM 8	< 0.3
7712913	M	< 0.3
7712914	MAIN OFFICE	0.8
7712927	MEDIA CENTER	< 0.3
7712907	MEDIA CENTER OFF	< 0.3
7712933	MEDIA CENTER OFF	0.6
7712908	MEDIA STUDIO	< 0.3
7712937	MEDIA STUDIO	< 0.3
7712919	NURSES OFFICE	0.9
7712921	OFFICE WORKROOM	1
7712987	PE GIRLS	0.7
7712943	PE MEN	0.7
7712922	PRINCIPAL	0.8
7712960	SECURITY OFF	< 0.3
7712915	* SPECIAL SERVICES (missing)	-
7712910	* STAFF LOUNGE (missing)	-
7712939	STUDENT SUPPORT	< 0.3
7712942	STUDENT SUPPORT	< 0.3
7712975	TM 6 B	< 0.3
7712950	TM 6A	0.8
7712928	TV STUDIO	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Briggs Chaney Middle School		
Test Period: 12/21/15-12/24/15		
Kit Number	QC Type	Result
7712902	D (15A)	1.9
7712962	D (3A)	< 0.3
7712955	D (9)	< 0.3
7712961	D (CAFATERIA)	< 0.3
7712944	D (GYM)	< 0.3
7712964	D (PE GIRLS)	0.8
7712912	* D (SPECIAL SERVICES:missing)	-
7712903	FB (15 A)	< 0.3
7712965	FB (CAFATERIA)	< 0.3
7712978	FB (DANCE STUDIO)	< 0.3
7713000	FB (PE MEN)	< 0.3
7713910	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:

**BRIGGS CHENEY MIDDLE SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7713910	00	2015-12-21 @ 3:00 pm	2015-12-24 @ 2:00 pm	< 0.3	2015-12-28
7712959	10	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712945	11	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712958	11 B	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7712963	12	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712935	13	@	@		
7712911	13	@	@		
7712932	14 A	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.6 ± 0.3	2015-12-28
7712940	14 B	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712903	15 A	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712930	15 B	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	1.0 ± 0.3	2015-12-28
7712929	15 B OFF	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-28
7712905	15 OFF	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712936	15A	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	1.2 ± 0.3	2015-12-28
7712902	15A	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	1.9 ± 0.4	2015-12-28
7712931	16	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.5 ± 0.3	2015-12-28
7712904	16	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	1.1 ± 0.3	2015-12-29
7712901	17	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.9 ± 0.4	2015-12-29
7712923	17 OFFICE	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.8 ± 0.3	2015-12-28
7712926	17 OFFICE	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	1.1 ± 0.3	2015-12-28
7712909	18	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-29
7712925	19	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.6 ± 0.3	2015-12-28
7712951	3	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712969	36	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712993	37	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712990	38	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712980	39	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712956	3A	2015-12-21 @ 11:00 am	2015-12-24 @ 10:00 am	0.6 ± 0.3	2015-12-28
7712962	3A	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712981	40	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712970	41	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712977	5	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712971	5	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-29
7712972	7	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7712973	8	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-29
7712955	9	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712952	9	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29

Radon test result report for:

**BRIGGS CHENEY MIDDLE SCHOOL
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7712918	A	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7712906	ASST PRINCIPAL	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7712920	ASST PRINCIPAL	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-29
7712994	BUILDING SERVICE	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-28
7712995	BUILDING SERVICE	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-28
7712953	BUILDING SERVICE	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-29
7712957	CAFATERIA	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7712967	CAFATERIA	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7712961	CAFATERIA	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712965	CAFATERIA	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712966	CAFE OFFICE	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7712976	COMP LAB 6	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7712938	CONFERENCE RM	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7712934	CONFERENCE RM	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.4	2015-12-29
7712916	COUNSELOR	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7712917	COUNSELOR	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-28
7712924	COUNSELOR	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7712941	COUNSELOR	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-29
7712979	DANCE STUDIO	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712978	DANCE STUDIO	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712954	DANCE STUDIO	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712974	EXERCISE RM	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7712946	EXERCISE RM	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-29
7712948	FINANCIAL OFFICE	@	@		
7712947	GYM	@	@		
7712989	GYM	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7712944	GYM	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712949	GYM	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712968	GYM	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712991	LAB ROOM 8	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712913	M	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712914	MAIN OFFICE	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-29
7712927	MEDIA CENTER	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7712907	MEDIA CENTER OFF	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712933	MEDIA CENTER OFF	2015-12-21 @ 10:00 am	2015-12-24 @ 10:00 am	0.6 ± 0.3	2015-12-29
7712937	MEDIA STUDIO	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7712908	MEDIA STUDIO	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29

January 12, 2016
**LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

**BRIGGS CHENEY MIDDLE SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7712919	NURSES OFFICE	2015-12-21 @ 9:00 am	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7712921	OFFICE WORKROOM	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7712987	PE GIRLS	2015-12-21 @ 11:00 am	2015-12-24 @ 2:00 pm	0.7 ± 0.3	2015-12-28
7712964	PE GIRLS	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	0.8 ± 0.4	2015-12-29
7713000	PE MEN	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7712943	PE MEN	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	0.7 ± 0.4	2015-12-29
7712922	PRINCIPAL	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7712960	SECURITY OFF	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7712912	SPECIAL SERVICES	@	@		
7712915	SPECIAL SERVICES	@	@		
7712910	STAFF LOUNGE	@	@		
7712942	STUDENT SUPPORT	2015-12-21 @ 11:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7712939	STUDENT SUPPORT	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7712975	TM 6 B	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7712950	TM 6A	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-29
7712928	TV STUDIO	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29

December
29,
2015

****LABORATORY ANALYSIS
REPORT ****

Radon test result report for:
TRANSIT DEC 14 2015
NONE

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

December
23,
2015

****LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:
MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 173224

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

Date Start: 12/18/15 Date Stop: 12/21/15 Date Start: _____ Date Stop: _____

Time Start: 0929 Time Stop: 0929 Time Start: _____ Time Stop: _____

Device No.'s: 7705132, 7706208, Device No.'s: _____

7706211, 7706366, _____

7706380, 7706381 _____

F3 Left

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

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

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

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

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

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

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



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Chain of Custody

Project Name: MCPS Radon Phase II

School Names:

- | | | |
|---------------------------|-----------------------------|---------------------------|
| 1. Bannockburn ES | 11. Sherwood HS | 21. Fairland ES |
| 2. Walt Whitman HS | 12. Hadley Farms | 22. Cannon Road ES |
| 3. Walter Johnson HS | 13. S. Christa McAuliffe ES | 23. Richard Montgomery HS |
| 4. North Chevy Chase ES | 14. Ronald A. McNair ES | 24. Brooke Grove ES |
| 5. Piney Branch ES | 15. MLK MS | 25. Belmont ES |
| 6. Forest Knolls ES | 16. Ashburton ES | 26. Emory Grove |
| 7. Newport Mill MS | 17. Bradley Hills ES | 27. Clarksburg HS |
| 8. Broad Acres ES | 18. Flora M. Singer ES | 28. Clarksburg ES |
| 9. Briggs Chaney MS | 19. Woodlin ES | 29. John T. Baker MS |
| 10. Blair G. Ewing Center | 20. Montgomery Knolls ES | |

	Date	Initials
Radon Test Kits Deployed	12/21/2015	JM
Radon Test Kits Collected	12/24/2015	JM
Radon Test Kits Shipped to Lab*	12/24/2015	JM
Radon Test Kits Received by Lab*	12/28/2015	JM

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