

Instructions: Submit one testing report form per-facility per-round of testing. Include the following as attachments: Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- Testing Results lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results list of rooms by test result ≥2.0-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)

Attacnment 3 – Sa	mpiing Loc	ition iviap(s) – ina	icating approximate location of samples, auplicates and blanks.				
			School Year: 23-24				
Facility:	Bayard	Rustin Element	Rustin Elementary School				
0 dd	51 Univ	ersity Boulevar	d East				
Address:	Silver Sp	oring, MD 2090	1				
		☐ Scheduled	Re-Testing (2 or 5-year schedule)				
Reason for T	esting:	□ Clearance Testing (Post-Mitigation)					
icason for i	csting.	☐ System(s) Performance Testing (Post-Mitigation)					
		☐ New Cons	truction/Facility				
F 11: 0		🛮 Active Mi	tigation (2-year regular schedule)				
Facility Curren Status		☐ No Active	Mitigation (5-year regular schedule)				
Status	•	☐ Not Previo	ously Tested				
Round of Te	esting:	☑ Initial Tes	ting -or- Follow-up Testing				
Testing Sta	atus:	☑ No Furthe	er Testing Needed -or- Follow-Up Testing Required				
Conclusion (Wh	nen Testin	g Status is - No	Further Testing Needed)				
Mitigation -		-	Facility Radon Status:				
☑ Not Required or Considered		Considered	No Change in Status				
☐ Required (>8.0-pCi/L)		O-pCi/L)	<u> </u>				
☐ Requ	uired (≥4.	O-pCi/L)	Active Mitigation (2-year regular schedule)				
☐ Consider (≥2.0 & <4.0-pCi/L)		<4.0-pCi/L)	☐ No Active Mitigation (5-year regular schedule)				



	□ Passive	□ Charc	oal Absorptio	on (CAD) 🗌 A	Alpha Track (ATD) 🗌 Other			
Detector/Device	☐ Continuous							
Type:	Other–Specify here	?:						
,,								
Detector/Device	Air Chek – Radon	Air Chek – Radon Test Kits						
Name:								
Manufacturer:	Radon Lab							
Person(s) Deploying	-	t Devices and		Or	ganization/Company			
certification number	er							
Tyler McCleaf				KCI Technolo	gies, Inc.			
If noncertified individ	uals, the qualified m	neasurement pi	rofessional pro	ı viding oversight	;-			
				KCI Technolo				
Tyler McCleaf, CSP	- Cert. #111004-K	IVIP		KCI Technolo	gies, inc.			
Testing								
			T					
	Length of	2	Date of Dep	oloyment and	02/05/2024			
☐ Long-Term	Test (days):	3	Retrieval	(mm/dd/yy): 02/08/2024				
_			1 1 1	1:1 2				
Does the test pe	eriod include week	cenas, school	breaks or no	ııdays?	☐ Yes ☒ No			
If " Yes " please ex	plain/detail in the sp	pace below:						
Was HVAC operating under occupied conditions? ☐ Yes ☐ No								
If " No " please exp	olain/detail in the sp	ace below:						

Testing (continued)



	Dete	Detectors Deployed				
	Ground-Contact Upper-Level(s)		Total			
Test Locations ¹	38	3	41			
Duplicates ²	4	0	4			
Field Blanks ³	2	0	2			
		Grand Total	47			

- 1 include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space \leq 2,000-square feet; large spaces \geq 2,000-square feet 1 detector per 2,000-square feet or part thereof); and upper floors 10% of all occupied or intended to be occupied rooms per floor (these are in addition to ground contact locations)
- 2 10% of all locations tested, per floor
- 3 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

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

Spike Samples ¹ 6	Trip Blank(s) ²	1	Office Blank(s) ^{3,4}	1
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- 1 3% of EIC detectors; and 3% from <u>each LOT</u> of CAD and ATD detectors; a <u>maximum of 6-spiked</u> <u>measurements</u> per month for both EIC detectors and <u>each LOT</u> of CAD and ATD detectors.
- 2 One per shipping container from start of detector deployment
- 3 One per facility tested as devices are removed/allocated from the storage location for deployment;
- 4 One additional blank, <u>analyzed prior to deployment</u>, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 25% of the chamber's reference value.	⊠ Yes	□ No
Quality Control measurements comply with QA/QC requirements in the QA plan previously submitted?	⊠ Yes	□ No

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



If " No " to either, please describe any QC measurements that were missing or outside of control toleran	ices
established in the QAP here:	

Summary of Test Results¹ and Determination of Valid Measurements²

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	38	3	41
Number of locations ≥8.0-pCi/L:	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	0	0	0
Number of locations ≥2.7 and ≤4-pCi/L:	0	0	0
Number of locations ≥2.0 and ≤4-pCi/L:	0	0	0
Number of missing required test locations ³ :	0	0	0
Percentage of missing test locations for the facility ^{4,5} :	0	0	0

- 1 for locations with multiple test results, report consistent with Section 7.2(When Two Test Results Disagree) and 8.1.2 (Averaging) of ANSI/AARST MA-MFLB 2023 Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings;
- 2 the allowance is to be calculated individually for Ground-Contact and Upper-Level(s) Test Locations;
- 3 includes missed or inaccessible locations upon deployment or retrieval, damaged (not able to analyze) and missing detectors upon retrieval;
- 4 if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of ≤33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;
- 5 if any valid measurements are ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023.

Summary of Test Results¹ and Determination of Valid Measurements² (continued)



Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	⊠ Yes □ No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	Yes □ No
If Yes to both above – then Testing Status – 'No Further Testing Needed' mark 'NA' below and comple	te Conclusions section
If No to either above, were all results obtained under 4.0-pCi/L and were there sufficient valid measurements obtained? ^{1,2} If Yes – then Testing Status - 'No Further Testing Needed' complete Conclusion section If No, then Testing Status - 'Follow-up Testing Required' continue below	☐ Yes ☐ No ☑ NA

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

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

Follow-Up Testing (if required)

Required if -

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

Follow-up Testing:

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

Initial Result(s)	Procedure	Follow-up Result	Conclusion
		≥4.0	Mitigation Required
≥ 4.0-pCi/L	1- Short-term follow-up test2- Average the results of the two tests	<4.0 but >2.0	Consider Mitigation
	2- Average the results of the two tests	<2.0	Not Required or Considered

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

Attachment 1: Summary Data Tables

	- Radon Testing Re				
	Rustin Elementary S				
Test Period: 02/05/2024 - 02/08/2024					
Kit Number	Room / Area	Result			
11287198	102	< 0.3			
11469441	103	1.7			
11469442	103	1.6			
11469411	106	< 0.3			
11469408	119	< 0.3			
11469409	119	< 0.3			
11469405	121	0.6			
11469412	125	< 0.3			
11469433	126	0.7			
11469419	127	< 0.3			
11469420	127	< 0.3			
11469431	129	< 0.3			
11469432	133	0.6			
11469434	134	< 0.3			
11469423	135	0.5			
11469417	137	< 0.3			
11469418	137	< 0.3			
11469424	141	< 0.3			
11469425	143	< 0.3			
11469422	149	< 0.3			
11469427	149	< 0.3			
11469421	153	< 0.3			
11469413	155	< 0.3			
11469439	159	< 0.3			
11469428	165	< 0.3			
11469426	169	< 0.3			
11469414	173	0.7			
11469406	175	< 0.3			
11469402	179	< 0.3			
11469416	181	< 0.3			
11469415	183	< 0.3			
11469407	187	< 0.3			
11469440	207	< 0.3			
11469447	230	< 0.3			
11469448	318	< 0.3			
		+			

100B

100D

100G

0.8

0.7

< 0.3

11287194

11287199

11287200

11287196	102C	< 0.3
11469429	120A	0.9
11469435	120A	< 0.3
11469436	APR	< 0.3
11469437	APR	0.8
11469403	GYM	0.7
11469404	GYM	0.9
11469410	GYM OFFICE	1.0
11287195	MAIN	< 0.3

	Table 2 - Summary Testing Results ≥2.0 pCi/L							
	Bayard Rustin Elementary School							
	Test Period: 02/5/2024 - 02/8/2024							
≥2.0 and <2	2.7 pCi/L	≥2.7 and <4	.0 pCi/L	≥4.0 and <	3.0 pCi/l	≥8.0 pCi/L		
Room / Area	Result	Room / Area	Result	Room / Area	Result	Room / Area	Result	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Table 3 - QC Radon Testing Results Sequoyah Elementary School Test Period: 02/05/2024 - 02/08/2024						
Kit Number	Kit Number QC Type Room / Area Result					
11469455	FB	4	<0.3			
11469302	D	5	<0.3			
11469445	D	11	<0.3			
11469472	D	Art	<0.3			
11469468	FB	Eld1	<0.3			
11469464	D	Media office	<0.3			
11469466	D	Resource	<0.3			
11470089	OB	OFFICE BLANK	< 0.3			
11470096	TB	TRAVEL BLANK	< 0.3			

	Table 4 - Summary of Invalid Measurement Locations Bayard Rustin Elementary School				
Test Period: 02/5/24 - 02/8/24					
Kit Number	Room/Area	Result			
N/A	N/A	N/A			
IN/A	IN/A	IN/A			

Attachment 2: Laboratory Reports

Radon test result report for: BAYARD RUSTIN ES MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11287194	100B	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.8 ± 0.4	2024-02-12
11287199	100D	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.7 ± 0.3	2024-02-12
11287200	100G	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11287198	102	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11287196	102C	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469441	103	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	1.7 ± 0.4	2024-02-12
11469442	103	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	1.6 ± 0.4	2024-02-12
11469411	106	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469409	119	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469408	119	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469429	120A	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	0.9 ± 0.4	2024-02-12
11469435	120A	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469405	121	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.6 ± 0.4	2024-02-12
11469412	125	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469433	126	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	0.7 ± 0.4	2024-02-12
11469420	127	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469419	127	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469431	129	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469432	133	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.6 ± 0.3	2024-02-12
11469434	134	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469423	135	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.5 ± 0.3	2024-02-12
11469417	137	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469418	137	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469424	141	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469425	143	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469427	149	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469422	149	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469421	153	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469413	155	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469439	159	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469428	165	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469426	169	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469414	173	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.7 ± 0.4	2024-02-12
11469406	175	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469402	179	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469416	181	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469415	183	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12

Radon test result report for: BAYARD RUSTIN ES MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11469407	187	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469440	207	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469447	230	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469448	318	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469437	APR	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	0.8 ± 0.4	2024-02-12
11469436	APR	2024-02-05 @ 10:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12
11469404	GYM	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.9 ± 0.4	2024-02-12
11469403	GYM	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	0.7 ± 0.4	2024-02-12
11469410	GYM OFFICE	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	1.0 ± 0.4	2024-02-12
11287195	MAIN	2024-02-05 @ 9:00 am	2024-02-08 @ 10:00 am	< 0.3	2024-02-12

February 13, 2024

** LABORATORY ANALYSIS REPORT **

Radon test result report for: KCI
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11470089	OB	2024-02-05 @ 8:00 am	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11478304	OB	2024-02-06 @ 8:00 am	2024-02-09 @ 12:00 pm	< 0.3	2024-02-12
11470096	TB	2024-02-05 @ 8:00 am	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11478309	TB	2024-02-06 @ 8:00 am	2024-02-09 @ 12:00 pm	< 0.3	2024-02-12

January 29, 2024

** LABORATORY ANALYSIS REPORT **

Radon test result report for: STORAGE

KCI

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOG	IES /Ne Job Number 213819	
NOMINAL Conditions: Radon Conc_5Q.Q	pCi/L Rel. Hum 38.9 % Temp. 69.1 F	
Date Start: <u>Ala3/a</u> 4 Date Stop: <u>alada</u>	Date Start: Date Stop:	
Time Start: O812 Time Stop: 0812	Time Start: Time Stop:	
Device No.'s: (6) CHAR BA65	Device No.'s:	
11478400, 11477842, 11477845,		
11477 852 11477 996, 11477 999		
Date Start: Date Stop:		
Time Start: Time Stop:	Time Start: Time Stop:	
Device No.'s:	Device No.'s:	
Date Start: Date Stop:	Date Start: Date Stop:	
Time Start: Time Stop:	Time Start: Time Stop:	
Device No.'s:	Device No.'s:	
	`,	

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

** LABORATORY ANALYSIS REPORT **

Radon test result report for: **FEB SK**

MAIN

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



Engineers • Planners • Scientists • Construction Managers

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing February 5th to February 8th 2024

Name of Schools:

- 1. Cedar Grove ES
- 2. College Gardens ES
- 3. Lois P. Rockwell ES
- 4. Clarksburg HS

- 5. Bayard Rustin ES
- 6. Sequoyah ES
- 7. Sherwood ES
- 8. Carver Educational Center

	Date	Initials
Radon Test Kits Deployed	02/05/2024	Dy
Radon Test Kits Collected	02/08/2024	om
Radon Test Kits Shipped to Lab*	02/08/2024	on
Radon Test Kits Received by Lab*	02/12/2024	m

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

Attachment 3: Sampling Location Map



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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Bayard Rustin
	Elementary School
Date of Test Report	1/12/2023
Round of Testing	(Initial)
	Follow-up
	Post Remediation
	2 Year Testing
	5 Year Testing
	HVAC Upgrade
	Window Replacement
	New Addition
	New Facility
# Rooms Tested	43
# Rooms \geq 4.0 pCi/L	6
Lowest Value	<0.3 pCi/L
Highest Value	6.7 pCi/L

Project Status:

- 1. Initial testing completed;
- 2. Missing or compromised samples need re-test.
- 3. Mitigate Rooms 103, 119, 129, 133, 187, & 100D

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January 12, 2023

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

Re: Radon Testing Services

KCI Job # 122210551

Location: Bayard Rustin Elementary School

332 West Edmonston Drive Rockville, MD 20852

Dear Mr. Croyle:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools (MCPS) pursuant to completing a "short-term" 3 day radon test for the Bayard Rustin Elementary School, located at 332 West Edmonston Dr. Rockville, MD 20852 (subject site).

Scope of Services:

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

KCI visited the site on December 12, 2022 and deployed forty-nine (49) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on December 15, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc.

KCI Technologies, Inc. www.kci.com

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 concentration levels at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate temperatures were between 22°F and 53°F. Maximum sustained winds ranged from 0-20 miles per hour. Average humidity was around 70% with 1.98 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
	103	3.6
	119	3.5
>4.0 -: C/I	129	4.7
≥4.0 piC/L	133	4.5
	187	3.5
	100D	6.7
<4.0 piC/L	See Attachment B	

KCI Technologies, Inc. www.kci.com

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

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

Sincerely,

Tyler P. McCleaf

Radon Measurement Provider

#111004 RT

KCI Technologies, Inc.

Tyler McCleaf

Attachments: A- Floor Plan with Test Locations

B- Table 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table 1- Radon Testing Results	
Bavard Rustin ES	

Test Period: 12/12/2022 - 12/15/2022

Kit Number	Room / Area	Result
11140192	102	1.6
11140181	103	3.6
11285476	119	3.5
11285455	121	2.4
11285470	125	1.6
11140194	126	1.2
11140200	127	1.3
11287999	129	4.7
11114399	133	4.5
11140195	134	3.4
11140198	135	2.0
11285445	137	2.2
11285453	137	1.9
11285454	137	< 0.3
11140190	141	1.3
11140188	142	0.7
11140189	143	1.2
11140130	149	1.1
11285460	149	1.6
11140197	153	1.5
11285468	155	1.5
11285462	159	1.7
11140122	165	1.7
11140121	169	1.9
11140196	173	1.0
11140199	175	1.5
11285461	179	1.5
11285469	181	1.3
11285467	183	1.3
11285465	187	3.5
11285477	187	3.0
11285478	187	< 0.3
11285485	205	1.4
11285472	226	1.4
11285475	305	2.0
11140183	100B	2.0
11140184	100D	6.7
11140185	100F	2.5
11140191	102B	1.7
11140186	102C	1.8
11140179	APR	1.5
11140180	APR	1.3

Table 1- Radon Testing Results				
	Bayard Rustin ES			
Tes	t Period: 12/12/2022 - 12/15/2022	2		
Kit Number	Room / Area	Result		
11140182	APR	1.7		
11285471	GYM	2.6		
11285479	GYM	2.4		
11285463	GYM OFFICE	1.9		
11140187	KITCHEN OFFICE	0.8		
11140193	MAIN OFFICE	1.8		
11140114	WORK ROOM	1.7		

Table 2- Radon Testing Results			
	Baya	ard Rustin ES	
	Test Period:	12/12/22 - 12/15/22	
Kit Number	QC Type	Room / Area	Result
11285453	D	137	1.9
11285454	FB	137	< 0.3
11140130	D	149	1.1
11285477	D	187	3.0
11285478	FB	187	< 0.3
11140179	D	APR	1.5
11286981	OB	OFFICE BLANK	< 0.3
11286982	ТВ	TRAVEL BLANK	< 0.3

Summary of Missed Locations			
Bayard Rustin ES			
Т	est Period: 12/12/22 - 12/15/22		
Kit Number	Room/Area	Result	
	N/A		

Summary of Missing, Compromised and >/= 4 piC/L Tests				
Test Period: 12/12/22 - 12/15/22				
Room/Area	Result			
103	3.6			
119	3.5			
129	4.7			
133	4.5			
187	3.5			
100D	6.7			
	Bayard Rustin ES Test Period: 12/12/22 - 12/15/2 Room/Area 103 119 129 133 187			

Table Note:

^{*} Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for: BAYARD RUSTIN ES 1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11140183	100B	2022-12-12 @ 11:00 am	2022-12-15 @ 10:00 am	2.0 ± 0.4	2022-12-19
11140184	100D	2022-12-12 @ 11:00 am	2022-12-15 @ 10:00 am	6.7 ± 0.5	2022-12-19
11140185	100F	2022-12-12 @ 11:00 am	2022-12-15 @ 10:00 am	2.5 ± 0.4	2022-12-19
11140192	102	2022-12-12 @ 11:00 am	2022-12-15 @ 10:00 am	1.6 ± 0.4	2022-12-19
11140191	102B	2022-12-12 @ 11:00 am	2022-12-15 @ 10:00 am	1.7 ± 0.4	2022-12-19
11140186	102C	2022-12-12 @ 11:00 am	2022-12-15 @ 10:00 am	1.8 ± 0.4	2022-12-19
11140181	103	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	3.6 ± 0.4	2022-12-19
11285476	119	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	3.5 ± 0.4	2022-12-19
11285455	121	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	2.4 ± 0.4	2022-12-19
11285470	125	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	1.6 ± 0.4	2022-12-19
11140194	126	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.2 ± 0.4	2022-12-19
11140200	127	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.3 ± 0.4	2022-12-19
11287999	129	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	4.7 ± 0.5	2022-12-19
11114399	133	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	4.5 ± 0.4	2022-12-19
11140195	134	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	3.4 ± 0.4	2022-12-19
11140198	135	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	2.0 ± 0.4	2022-12-19
11285445	137	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	< 0.3	2022-12-19
11285453	137	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.9 ± 0.4	2022-12-19
11285454	137	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	2.2 ± 0.4	2022-12-19
11140190	141	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.3 ± 0.3	2022-12-19
11140188	142	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	0.7 ± 0.3	2022-12-19
11140189	143	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.2 ± 0.3	2022-12-19
11140130	149	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.1 ± 0.3	2022-12-19
11285460	149	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.6 ± 0.4	2022-12-19
11140197	153	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.5 ± 0.4	2022-12-19
11285468	155	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	1.5 ± 0.4	2022-12-19
11285462	159	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	1.7 ± 0.4	2022-12-19
11140122	165	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.7 ± 0.4	2022-12-19
11140121	169	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.9 ± 0.4	2022-12-19
11140196	173	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.0 ± 0.3	2022-12-19
11140199	175	2022-12-12 @ 11:00 am	2022-12-15 @ 11:00 am	1.5 ± 0.4	2022-12-19
11285461	179	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	1.5 ± 0.4	2022-12-19
11285469	181	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	1.3 ± 0.4	2022-12-19
11285467	183	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	1.3 ± 0.4	2022-12-19
11285465	187	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	3.5 ± 0.4	2022-12-19
11285478	187	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	< 0.3	2022-12-19
11285477	187	2022-12-12 @ 12:00 pm	2022-12-15 @ 11:00 am	3.0 ± 0.4	2022-12-19

Radon test result report for: BAYARD RUSTIN ES 1

Kit#	Room Id	Started		Ended	pCi/L	Analyzed
11285485	205	2022-12-12 @	12:00 pm	2022-12-15 @ 11:00 am	1.4 ± 0.4	2022-12-19
11285472	226	2022-12-12 @	12:00 pm	2022-12-15 @ 11:00 am	1.4 ± 0.4	2022-12-19
11285475	305	2022-12-12 @	12:00 pm	2022-12-15 @ 11:00 am	2.0 ± 0.4	2022-12-19
11140180	APR	2022-12-12 @	11:00 am	2022-12-15 @ 11:00 am	1.3 ± 0.4	2022-12-19
11140182	APR	2022-12-12 @	11:00 am	2022-12-15 @ 11:00 am	1.7 ± 0.4	2022-12-19
11140179	APR	2022-12-12 @	11:00 am	2022-12-15 @ 11:00 am	1.5 ± 0.4	2022-12-19
11285471	GYM	2022-12-12 @	12:00 pm	2022-12-15 @ 11:00 am	2.6 ± 0.4	2022-12-19
11285479	GYM	2022-12-12 @	12:00 pm	2022-12-15 @ 11:00 am	2.4 ± 0.4	2022-12-19
11285463	GYM OFFICE	2022-12-12 @	12:00 pm	2022-12-15 @ 11:00 am	1.9 ± 0.4	2022-12-19
11140187	KITCHEN OFFICE	2022-12-12 @	11:00 am	2022-12-15 @ 11:00 am	0.8 ± 0.4	2022-12-19
11140193	MAIN OFFICE	2022-12-12 @	11:00 am	2022-12-15 @ 10:00 am	1.8 ± 0.4	2022-12-19
11140114	WORK ROOM	2022-12-12 @	11:00 am	2022-12-15 @ 10:00 am	1.7 ± 0.4	2022-12-19

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 - April 2022 Schools - Retesting

Name of Schools:

- 1. Meadow Hall ES
- 2. Bayard Rustin ES
- 3. Lucy V. Barnsley ES
- 4. Cashell ES
- 5. Wheaton Woods ES
- 6. Winston Churchill HS

	Date	Initials
Radon Test Kits Deployed	12/12/2022	BUHU
Radon Test Kits Collected	12/15/2022	Bull
Radon Test Kits Shipped to Lab*	12/15/2022	BUU
Radon Test Kits Received by Lab*	12/19/2022	BULLY

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





MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary: Bayard Rustin Elementary School

332 West Edmonston Drive, Rockville, MD 20852

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:	1	
# of Rooms ≥ 4.0 pCi/L:	0	
Low Value:	< 0.4	
High Value:	< 0.4	

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: Bayard Rustin Elementary School

332 West Edmonston Drive,

Rockville, MD 20852

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 Bayard Rustin Elementary School, located at 332 West Edmonston Drive, Rockville, MD 20852 (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 26, 2019 and deployed one (1)) activated charcoal (AC) radon test kit. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on March 1, 2019 to retrieve the radon sampling test kit. A floor plan map of the building with the test locations 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°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 Attach	nment 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

Non-April Coulin

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						
Lucy V. Barnsley Elementary School						
To	Testing period: 2/26/19 - 3/1/19					
Kit Number Room / Area Result (pCi/L)						
3923524 Room 159 < 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) MCPS Radon Survey Bayard Rustin ES 2930 Eskridge Road 332 W. Edmonston Drive Fairfax VA 22031 Rockville MD 20852

 Log
 Device Number
 Test Exposure Duration:
 Area Tested
 Result pCi/L

 3220714 3923524 02/26/2019 8:10 am
 03/01/2019 8:10 am
 Floor Main Room 159
 < 0.4</td>

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: 03/05/2019 Date Reported: 03/05/2019

Report Reviewed By: _

Disclaimer:

Report Approved By:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary: Bayard Rustin Elementary School

332 W Edmonston Drive, Rockville, MD 20852

Date of Test Report:	1/15/2019
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:	41
# of Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	1.0

Project Status

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



January 15, 2019

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

Re: Radon Testing Services

Location: Bayard Rustin Elementary School

332 W. Edmonston Drive, Rockville, MD 20852

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 Bayard Rustin Elementary School, located at 332 W. Edmonston Drive, Rockville, MD 20852 (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 12, 2018 and deployed fifty-one (51) activated charcoal (AC) radon test kits. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on November 15, 2018 to retrieve the radon sampling test kits. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

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



Evaluation of Testing Conditions:

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages \leq 65°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 Attach	nment 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

Non-April Coulin

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						
	Bayard Rustin Elementary Scho	ool					
Testing period: 11/12/18 - 11/15/18							
Kit Number	Room / Area	Result (pCi/L)					
3915916	100	0.5					
3915918	100B	< 0.4					
3915915	100D	< 0.4					
3915854	100G	< 0.4					
3915948	101B	0.5					
3915911	102	< 0.4					
3915920	102B	< 0.4					
3915913	102C	< 0.4					
3915917	103	0.4					
3915914	106	< 0.4					
3915943	119	< 0.4					
3915801	120	< 0.4					
3915971	120A	< 0.4					
3915947	121	< 0.4					
3915946	125	< 0.4					
3915807	126	< 0.4					
3915977	127	< 0.4					
3915806	129	< 0.4					
3915809	133	< 0.4					
3915975	134	< 0.4					
3915802	137	< 0.4					
3915808	141	1.0					
3915976	149	< 0.4					
3915972	153	< 0.4					
3915804	155	< 0.4					
3915805	159 (MISSING)						
3915973	165	< 0.4					
3915803	169	< 0.4					
2915980	173	< 0.4					
3915810	175	< 0.4					
3915941	179	< 0.4					
3915945	181	< 0.4					
3915949	183	< 0.4					
3915944	187	< 0.4					
3915859	205	< 0.4					
3915978	223	< 0.4					
3915858	226	< 0.4					
3915853	307	< 0.4					
3915857	318	< 0.4					
3881217	Gym	0.4					
3881207	Gym	< 0.4					
3915860	Platform	< 0.4					
		Į					

	Radon Testing Results						
	ayard Rustin Elementary Scho						
Tes	sting period: 11/12/18 - 11/15	5/18					
Kit Number	Kit Number QC Type Result (pCi/L)						
3915919	100B (D)	< 0.4					
3915912	103 (D)	< 0.4					
3915852	120A (D)	< 0.4					
3915974	165 (D)	< 0.4					
3915942	187 (D)	< 0.4					
3917306	Field Blank	< 0.4					
3907307	Field Blank	< 0.4					
3907308	Transit Blank	< 0.4					
3907309	Office Blank	< 0.4					

Table Notes:

- D Duplicate
- FB Field Blank
- OB Office Blank
- TB Transit Blank
- QC Quality Control

ATTACHMENT C

Laboratory Analytical Results



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

Laboratory Report for:

Intertek-PSI (VA)

2930 Eskridge Road

Fairfax VA 22031

Property Tested: Project # 04481387-1

MCPS Radon Survey

Bayard Rustin ES

332 West Edmonston Drive

Rockville MD 20852

Log Number	Device Number		Test Expo	sure Duratio	n:	Area Tested	Result pCi/L
2393547	3917307	11/12/2018	10:44 am	11/15/2018	9:21 am	Field Blank	< 0.4
2393548	3915916	11/12/2018	10:44 am	11/15/2018	9:09 am	First Floor Room 100	0.5
2393549	3915918	11/12/2018	10:49 am	11/15/2018	9:10 am	First Floor Room 100B	< 0.4
2393550	3917308	11/12/2018	10:44 am	11/15/2018	9:21 am	Transit Blank	< 0.4
2393551	3915919	11/12/2018	10:49 am	11/15/2018	9:12 am	First Floor Room 100B	< 0.4
2393552	3915980	11/12/2018	11:18 am	11/15/2018	9:38 am	First Floor Room173	< 0.4
2393553	3917309	11/12/2018	6:00 am	11/15/2018	6:00 pm	Not Indicated	< 0.4
2393554	3915915	11/12/2018	10:51 am	11/15/2018	9:13 am	First Floor Room 100D	< 0.4
2393555	3915914	11/12/2018	10:52 am	11/15/2018	9:15 am	First Floor Room 106	< 0.4
2393556	3915911	11/12/2018	10:54 am	11/15/2018	9:16 am	First Floor Room 102	< 0.4
2393557	3915920	11/12/2018	10:56 am	11/15/2018	9:18 am	First Floor Room 102B	< 0.4

Comment: AMENDED REPORT on 1/10/2019 to add the date and time the test began and ended for device 3917309. Confidential: Release results to client only.

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: Date Analyzed: 11/18/2018 Date Reported: 12/21/2018

Report Reviewed By: ______

Report Approved By:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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

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Disclaimer:



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

Laboratory Report for:

Intertek-PSI (VA)

2930 Eskridge Road

Fairfax VA 22031

Property Tested: Project # 04481387-1

MCPS Radon Survey

Bayard Rustin ES

332 West Edmonston Drive

Rockville MD 20852

Log Number	Device Number		Test Expo	sure Duration:	:	Area Tested	Result pCi/L
2393558	3915913	11/12/2018	10:58 am	11/15/2018 9):19 am	First Floor Room 102C	< 0.4
2393559	3915917	11/12/2018	11:00 am	11/15/2018 9):21 am	First Floor Room 103	0.4
2393560	3915912	11/12/2018	11:00 am	11/15/2018 9):21 am	First Floor Room 103	< 0.4
2393561	3915948	11/12/2018	11:02 am	11/15/2018 9):27 am	First Floor Room 101B	0.5
2393562	3915943	11/12/2018	11:04 am	11/15/2018 9):28 am	First Floor Room 119	< 0.4
2393563	3915944	11/12/2018	11:05 am	11/15/2018 9):30 am	First Floor Room 187	< 0.4
2393564	3915942	11/12/2018	11:05 am	11/15/2018 9):30 am	First Floor Room 187	< 0.4
2393565	3915949	11/12/2018	11:09 am	11/15/2018 9):32 am	First Floor Room 183	< 0.4
2393566	3915947	11/12/2018	11:10 am	11/15/2018 9):34 am	First Floor Room 121	< 0.4
2393567	3915945	11/12/2018	11:13 am	11/15/2018 9):35 am	First Floor Room 181	< 0.4
2393568	3915946	11/12/2018	11:15 am	11/15/2018 9):36 am	First Floor Room 125	< 0.4

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Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: Date Analyzed: 11/18/2018 Date Reported: 12/21/2018

Report Reviewed By: ______

____ F

Report Approved By:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

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

Laboratory Report for:

Intertek-PSI (VA)

2930 Eskridge Road

Fairfax VA 22031

Property Tested: Project # 04481387-1

MCPS Radon Survey

Bayard Rustin ES

332 West Edmonston Drive

Rockville MD 20852

Log Number	Device Number		Test Expo	sure Duration:	Area Tested	Result pCi/L
2393569	3915941	11/12/2018	11:16 am	11/15/2018 9:37	am First Floor Room 179	< 0.4
2393570	3915810	11/12/2018	11:21 am	11/15/2018 9:39	am First Floor Room 175	< 0.4
2393571	3915977	11/12/2018	11:23 am	11/15/2018 9:40	am First Floor Room 127	< 0.4
2393572	3915802	11/12/2018	11:24 am	11/15/2018 9:41	am First Floor Room 137	< 0.4
2393573	3915808	11/12/2018	11:26 am	11/15/2018 9:43	am First Floor Room 141	1.0
2393574	3915803	11/12/2018	11:28 am	11/15/2018 9:44	am First Floor Room 169	< 0.4
2393575	3915973	11/12/2018	11:30 am	11/15/2018 9:45	am First Floor Room 165	< 0.4
2393576	3915974	11/12/2018	11:30 am	11/15/2018 9:45	am First Floor Room 165	< 0.4
2393577	3915976	11/12/2018	11:32 am	11/15/2018 9:46	am First Floor Room 149	< 0.4
2393578	3915972	11/12/2018	11:35 am	11/15/2018 9:48	am First Floor Room 153	< 0.4
2393579	3915804	11/12/2018	11:37 am	11/15/2018 9:49	am First Floor Room 155	< 0.4

Comment: AMENDED REPORT on 1/10/2019 to add the date and time the test began and ended for device 3917309. Confidential: Release results to client only.

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: Date Analyzed: 11/18/2018 Date Reported: 12/21/2018

Report Reviewed By: ______

Report Approved By:

Disclaimer: Shawn Price, Director of Laboratory Operations, AccuStar Labs

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

Laboratory Report for:

Intertek-PSI (VA)

2930 Eskridge Road

Fairfax VA 22031

Property Tested: Project # 04481387-1

MCPS Radon Survey

Bayard Rustin ES

332 West Edmonston Drive

Rockville MD 20852

Log Number	Device Number		Test Expo	sure Duratio	on:	Area Tested	Result pCi/L
2393581	3915806	11/12/2018	11:44 am	11/15/2018	9:52 am	First Floor Room 129	< 0.4
2393582	3915809	11/12/2018	11:45 am	11/15/2018	9:54 am	First Floor Room 133	< 0.4
2393583	3915975	11/12/2018	11:47 am	11/15/2018	9:55 am	First Floor Room 134	< 0.4
2393584	3915807	11/12/2018	11:50 am	11/15/2018	9:57 am	First Floor Room 126	< 0.4
2393585	3915801	11/12/2018	11:52 am	11/15/2018	9:58 am	First Floor Room 120	< 0.4
2393586	3915971	11/12/2018	11:54 am	11/15/2018	9:59 am	Flr 1 Room 120A	< 0.4
2393587	3915852	11/12/2018	11:54 am	11/15/2018	10:00 am	Flr 1 Room 120A	< 0.4
2393588	3915860	11/12/2018	11:56 am	11/15/2018	10:01 am	First Floor Room Plarform	< 0.4
2393589	3915859	11/12/2018	12:17 pm	11/15/2018	10:04 am	First Floor Room 205	< 0.4
2393590	3915978	11/12/2018	12:20 pm	11/15/2018	10:06 am	First Floor Room 223	< 0.4
2393591	3915858	11/12/2018	12:22 pm	11/15/2018	10:08 am	First Floor Room 226	< 0.4

Comment: AMENDED REPORT on 1/10/2019 to add the date and time the test began and ended for device 3917309. Confidential: Release results to client only.

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: Date Analyzed: 11/18/2018 Date Reported: 12/21/2018

Report Reviewed By: ______

_ Report Approved By:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:The uncertainty of this radon measurement is ~+/- 10 %. Factors contrib

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

Laboratory Report for:

Intertek-PSI (VA)

2930 Eskridge Road

Fairfax VA 22031

Property Tested: Project # 04481387-1

MCPS Radon Survey

Bayard Rustin ES

332 West Edmonston Drive

Rockville MD 20852

Log Number	Device Number	Test Expo	osure Duratio	on:	Area Tested	Result pCi/L
2393592	3915853 11/12/20	18 12:25 pm	11/15/2018	10:10 am	First Floor Room 307	< 0.4
2393593	3915857 11/12/20	18 12:28 pm	11/15/2018	10:12 am	First Floor Room 318	< 0.4
2393594	3915854 11/12/20	18 12:30 pm	11/15/2018	9:14 am	First Floor Room 100G	< 0.4
2393595	3917306 11/12/20	18 10:44 am	11/15/2018	9:21 am	Office Blank	< 0.4

Comment: AMENDED REPORT on 1/10/2019 to add the date and time the test began and ended for device 3917309. Confidential: Release results to client only.

Distributed by: Intertek-PSI (VA)

Date Received: 11/17/2018 Date Logged: Date Analyzed: 11/18/2018 Date Reported: 12/21/2018

Report Reviewed By: ______

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Shawn Price, Director of Laboratory Operations, AccuStar Labs

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Disclaimer:



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

Laboratory Report for:

Intertek-PSI (VA)

2930 Eskridge Road

Fairfax VA 22031

Property Tested: Project # 04481387-1

MCPS Radon Survey

Bayard Rustin ES

332 West Edmonston Drive

N Bethesda MD 20852

Log Number	Device Number	Test Exp	osure Duration:	Area Tested	Result pCi/L
2393085	3881207 11/12	2/2018 12:36 pm	11/15/2018 9:21 am	Bldg. Bayard Rustin ES Floor First Room GYM	<0.4
2393086	3881217 11/12	2/2018 12:35 pm	11/15/2018 9:20 am	Bldg. Bayard Rustin ES Floor First Room GYM	0.4

Comment: 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: 12/17/2018

Report Reviewed By: __________

Report Approved By: _

Disclaimer:

Shawn Price, Director of Laboratory Operations, AccuStar Labs
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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 Device Number 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	3 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	3 9:47 am 12/10/2018 9:47 am	Spike	35.0
3204130 3926836 12/07/2018	3 9:47 am 12/10/2018 9:47 am	Spike	34.5
3204131 3926837 12/07/2018	3 9:47 am 12/10/2018 9:47 am	Spike	34.6
3204132 3926838 12/07/2018	3 9:47 am 12/10/2018 9:47 am	Spike	34.3
3204133 3926839 12/07/2018	3 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 12/12/2018 Date Analyzed: 12/12/2018 Date Reported: 12/13/2018 Date Logged:

Report Reviewed By: _

Report Approved By:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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Disclaimer:

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT Intertell - P5	Job Number 187732	
NOMINAL Conditions: Radon Conc 39.6	pCi/L Rel. Hum	49.1 % Temp. 70.1
Date Start: 12/7/18 Date Stop: 12/10/18	Pate Start:	Date Stop:
Time Start: <u>0947</u> Time Stop: <u>0947</u>	Time Start:	Time Stop:
Device No.'s: (10) Char. Cans-	Device No.'s:	
3926831 Thro 3926840		
GU Loft		
Date Start: Date Stop:	Date Start:	Date Stop:
Time Start: Time Stop:	Time Start:	Time Stop:
Device No.'s:	Device No.'s:_	74
Date Start: Date Stop:	Date Start:	Date Stop:
Time Start: Time Stop:	Time Start:	Time Stop:
Device No.'s:	Device No.'s:	

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



Chain of Custody

Project Name: MCPS Radon Survey 2018

Name of Schools:

1. Arcola ES

2. Glen Haven ES

3. Jackson Road

4. Cashell ES

5. Frost MS

6. Meadow Hall ES

7. North Lake Center

8. Barnsley ES

9. Bayard Rustin ES

10. Julius West MS

11. Rock Terrace HS

12. Churchill HS

13. Cold Spring ES

14. Hoover MS

15. Wayside ES

16. English Manor

	Date	Initials
Radon Test Kits Deployed	11/12/2018	NL
Radon Test Kits Sampled	11/15/2018	NL
Radon Test Kits Shipped to Lab*	11/15/2018	NL
Radon Test Kits Received by Lab*	11/17/2018;	111
radoli lest kits received by Lab.	11/18/2018	NL

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