



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Harmony Hills Elementary School
Date of Test Report	2/17/2023
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	77
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.1 pCi/L

Project Status:

1. 5-Year retesting completed.



February 17, 2023

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

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

Location: Harmony Hills Elementary School
13407 Lydia Street
Silver Spring, MD 20906

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 Harmony Hills Elementary School, located at 13407 Lydia St. Silver Spring, MD 20906 (subject site).

Scope of Services:

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

KCI visited the site on January 24, 2023 and deployed eighty-eight (88) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

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

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

Evaluation of Testing Conditions:

These tests represent:

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

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,



Tyler P. McCleaf
Radon Measurement Provider
#111004 RT
KCI Technologies, Inc.

Attachments: A- Floor Plan with Test Locations
 B- Table 1-3, Radon Test Summary Spreadsheets
 C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Harmony Hills ES		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11633184	2	< 0.3
11633195	3	< 0.3
11633194	4	< 0.3
11633190	5	0.7
11633196	5	< 0.3
11633186	6	< 0.3
11633191	6	< 0.3
11633198	7	< 0.3
11633197	8	< 0.3
11633185	9	< 0.3
11633192	10	0.8
11633164	31	0.7
11633162	32	< 0.3
11633160	33	< 0.3
11633168	34	1.0
11633188	34	0.9
11633177	35	< 0.3
11633155	36	< 0.3
11633178	37	< 0.3
11633171	38	< 0.3
11633123	101	0.8
11633132	101	0.9
11633141	102	< 0.3
11633121	103	< 0.3
11633138	110	0.6
11633102	111	0.6
11633149	111	0.8
11633128	117	< 0.3
11633117	118	0.8
11633109	122	0.6
11633179	128	0.7
11633180	130	< 0.3
11633181	130	0.7
11633146	131	0.6
11633169	131	< 0.3
11633144	132	< 0.3
11633159	133	< 0.3
11633174	134	< 0.3
11633170	135	< 0.3
11633167	136	< 0.3
11633172	137	< 0.3
11633182	137	< 0.3

Table 1- Radon Testing Results		
Harmony Hills ES		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11633176	139	0.9
11633145	140	0.9
11633189	141	0.8
11633175	143	1.1
11633165	145	0.7
11633166	146	1.1
11633105	147	< 0.3
11633173	148	< 0.3
11633156	149	0.5
11633157	149	< 0.3
11633163	150	< 0.3
11633158	151	< 0.3
11633187	151	< 0.3
11633183	211	< 0.3
11633153	214	< 0.3
11633193	216	< 0.3
11633124	100 MAIN	< 0.3
11633143	100A	< 0.3
11633136	100B	< 0.3
11633139	100C	< 0.3
11633131	100D	0.6
11633137	101 SMALL OFFICE	0.6
11633150	101A	< 0.3
11633130	101B	0.5
11633129	101C	1.1
11633133	101D	0.7
11633148	101E	1.0
11633147	101F	1.1
11633140	101H	< 0.3
11633142	104 AP	< 0.3
11633119	109A	0.7
11633114	109B	0.7
11633101	111 OFFICE	< 0.3
11633152	111 OFFICE	0.5
11633125	117 OFFICE	0.6
11633118	118A	< 0.3
11633126	118A	< 0.3
11633135	APR	< 0.3
11633151	APR	< 0.3
11633106	GYM	< 0.3
11633154	GYM	< 0.3
11633104	GYM OFFICE	< 0.3

Table 1- Radon Testing Results		
Harmony Hills ES		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11633127	KITCHEN OFFICE	< 0.3
11633110	MEDIA	< 0.3
11633120	MEDIA	0.8
11633134	STAGE	< 0.3

Table 2- Radon Testing Results			
Harmony Hills ES			
Test Period: 01/24/23 - 01/27/23			
Kit Number	QC Type	Room / Area	Result
11633190	D	5	0.7
11633191	FB	6	< 0.3
11633188	D	34	0.9
11633132	D	101	0.9
11633102	D	111	0.6
11633181	D	130	0.7
11633169	FB	131	< 0.3
11633156	D	149	0.5
11633158	FB	151	< 0.3
11633101	FB	111 Office	< 0.3
11633118	D	118A	< 0.3
11633975	OB	OFFICE BLANK	< 0.3
11633983	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633192	10	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.4	2023-01-31
11633124	100 MAIN	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633143	100A	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633136	100B	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633139	100C	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633131	100D	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633132	101	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.9 ± 0.3	2023-01-31
11633123	101	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.4	2023-01-31
11633137	101 SMALL OFFICE	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633150	101A	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633130	101B	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.5 ± 0.4	2023-01-31
11633129	101C	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	1.1 ± 0.4	2023-01-31
11633133	101D	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633148	101E	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	1.0 ± 0.4	2023-01-31
11633147	101F	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	1.1 ± 0.4	2023-01-31
11633140	101H	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633141	102	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633121	103	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633142	104 AP	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633119	109A	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633114	109B	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633138	110	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633149	111	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.3	2023-01-31
11633102	111	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.3	2023-01-31
11633152	111 OFFICE	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	0.5 ± 0.4	2023-01-31
11633101	111 OFFICE	2023-01-24 @ 8:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633128	117	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633125	117 OFFICE	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633117	118	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.4	2023-01-31
11633118	118A	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633126	118A	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633109	122	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.3	2023-01-31
11633179	128	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633180	130	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633181	130	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633146	131	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633169	131	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633144	132	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633159	133	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633174	134	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633170	135	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633167	136	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633182	137	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633172	137	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633176	139	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.9 ± 0.4	2023-01-31
11633145	140	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.9 ± 0.4	2023-01-31
11633189	141	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.4	2023-01-31
11633175	143	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	1.1 ± 0.4	2023-01-31
11633165	145	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633166	146	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	1.1 ± 0.4	2023-01-31
11633105	147	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633173	148	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633156	149	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.5 ± 0.3	2023-01-31
11633157	149	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633163	150	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633187	151	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633158	151	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633184	2	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633183	211	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633153	214	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633193	216	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633195	3	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633164	31	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633162	32	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633160	33	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633188	34	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.9 ± 0.4	2023-01-31
11633168	34	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	1.0 ± 0.4	2023-01-31
11633177	35	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633155	36	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633178	37	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633171	38	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633194	4	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633190	5	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.4	2023-01-31
11633196	5	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31

February 1, 2023

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633186	6	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633191	6	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633198	7	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633197	8	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633185	9	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633135	APR	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633151	APR	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633154	GYM	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633106	GYM	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633104	GYM OFFICE	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633127	KITCHEN OFFICE	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633120	MEDIA	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.4	2023-01-31
11633110	MEDIA	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633134	STAGE	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KC1 TECHNOLOGIES, INC Job Number 208343

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

Date Start: 12/24/22 Date Stop: 12/27/22 Date Start: _____ Date Stop: _____

Time Start: 0810 Time Stop: 0810 Time Start: _____ Time Stop: _____

Device No.'s: (5) CHAR BAGS - Device No.'s: _____

11285109, 11285110, 11285101

THRU 11285103

BY 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

December 29, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

OFFICE

MAIN

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

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Week 2 January Schools

Name of Schools:

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

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

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



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary:
Harmony Hills Elementary School
13407 Lydia Street,
Silver Spring, MD 20906

Date of Test Report:	2/13/2019
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:	66
# of Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	1.1

Project Status

Initial testing complete: No further action at this time.



February 13, 2019

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

Re: Radon Testing Services

Location: Harmony Hills Elementary School
13407 Lydia Street,
Silver Spring, MD 20906

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 Harmony Hills Elementary School, located at 13407 Lydia Street, Silver Spring, MD 20906 (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 27, 2018 and deployed eighty-two (82) 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 30, 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	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 that reads "Nand Kaushik". The signature is written in a cursive style.

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		
Harmony Hills Elementary School		
Testing period: 11/27/18 - 11/30/18		
Kit Number	Room / Area	Result (pCi/L)
3917495	2	<0.4
3917497	3	<0.4
3917499	4	<0.4
3917494	5	<0.4
3917496	6	<0.4
3915821	7	<0.4
3917370	8	<0.4
3917368	9	<0.4
3917369	10	<0.4
3917366	24	<0.4
3917319	26	<0.4
3917257	31	<0.4
3915715	32	<0.4
3915785	33	0.4
3917491	34	0.6
3915826	35	<0.4
3915827	36	0.4
3917365	37	0.4
3917316	38	<0.4
3915825	38	<0.4
3917364	100	<0.4
3917301	100A	<0.4
3915748	100B	<0.4
3915730	100C	<0.4
3915824	101A	<0.4
3915841	101B	<0.4
3915717	101C	<0.4
3915719	101D	<0.4
3917363	101E	<0.4
3915835	101G	<0.4
3915736	102	<0.4
3917498	103	0.4
3917436	103A	0.5
3917500	109	0.4
3915831	109	<0.4
3917432	109A	<0.4
3915705	110	<0.4
3915707	111	<0.4
3917255	111A	<0.4
3915855	111H	<0.4
3915750	115	<0.4
3917433	118	<0.4
3915767	122	<0.4

Radon Testing Results		
Harmony Hills Elementary School		
Testing period: 11/27/18 - 11/30/18		
Kit Number	Room / Area	Result (pCi/L)
3917361	128	0.6
3917315	130	<0.4
3915979	131	<0.4
3917251	132	<0.4
3915716	133	<0.4
3915745	134	<0.4
3915720	135	<0.4
3915797	136	0.4
3915800	137	<0.4
3915763	139	0.9
3915823	140	0.4
3915851	141	0.5
3915786	143	0.9
3917253	145	0.9
3915731	146	1.1
3917260	147	0.7
3917318	148	<0.4
3915828	149	0.8
3915829	150	0.4
3915830	151	<0.4
3917434	213	<0.4
3917435	216	<0.4
3917362	224	<0.4
3917437	225	<0.4
3915799	Stage	<0.4

Radon Testing Results		
Harmony Hills Elementary School		
Testing period: 11/27/18 - 11/30/18		
Kit Number	QC Type	Result (pCi/L)
3917367	24 (D)	<0.4
3917320	26 (D)	0.5
3915711	100 (D)	<0.4
3915704	101E (D)	<0.4
3917431	109 (D)	<0.4
3917241	115 (D)	<0.4
3915798	133 (D)	<0.4
3917283	137 (D)	<0.4
3917317	147 (D)	0.6
3917929	Field Blank	<0.4
3917843	Field Blank	<0.4
3917412	Field Blank	<0.4
3917847	Office Blank	<0.4
3917838	Transit Blank	<0.4

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
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure	Duration:	Area Tested	Result pCi/L
2400461	3917364	11/27/2018 5:11 pm	11/30/2018 11:25 am	Bldg Harmony Hills ES Floor First Room 100	< 0.4
2400462	3915711	11/27/2018 5:11 pm	11/30/2018 11:25 am	Bldg Harmony Hills ES Flr First Rm 100 Duplicate	< 0.4
2400463	3917301	11/27/2018 5:12 pm	11/30/2018 11:26 am	Bldg Harmony Hills ES Floor First Room 100A	< 0.4
2400464	3915748	11/27/2018 5:13 pm	11/30/2018 11:28 am	Bldg Harmony Hills ES Floor First Room 100B	< 0.4
2400465	3915730	11/27/2018 5:13 pm	11/30/2018 11:30 am	Bldg Harmony Hills ES Floor First Room 100C	< 0.4
2400466	3915736	11/27/2018 5:14 pm	11/30/2018 11:31 am	Bldg Harmony Hills ES Floor First Room 102	< 0.4
2400467	3915705	11/27/2018 5:14 pm	11/30/2018 11:31 am	Bldg Harmony Hills ES Floor First Room 110	< 0.4
2400468	3915707	11/27/2018 5:15 pm	11/30/2018 11:32 am	Bldg Harmony Hills ES Floor First Room 111	< 0.4
2400469	3917255	11/27/2018 5:16 pm	11/30/2018 11:32 am	Bldg Harmony Hills ES Floor First Room 111A	< 0.4
2400470	3915855	11/27/2018 5:18 pm	11/30/2018 11:33 am	Bldg Harmony Hills ES Floor First Room 111H	< 0.4
2400471	3915835	11/27/2018 5:19 pm	11/30/2018 11:34 am	Bldg Harmony Hills ES Floor First Room 101G	< 0.4

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Report Approved By: 

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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)
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MCPS Radon Survey
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400472	3917363	11/27/2018 5:20 pm - 11/30/2018 11:34 am	Bldg Harmony Hills ES Floor First Room 101E	< 0.4
2400473	3915704	11/27/2018 5:20 pm - 11/30/2018 11:35 am	Bldg Harmony Hills ES Floor First Room 101E	< 0.4
2400474	3915824	11/27/2018 5:21 pm - 11/30/2018 11:35 am	Bldg Harmony Hills ES Floor First Room 101A	< 0.4
2400475	3915841	11/27/2018 5:22 pm - 11/30/2018 11:37 am	Bldg Harmony Hills ES Floor First Room 101B	< 0.4
2400476	3915717	11/27/2018 5:23 pm - 11/30/2018 11:37 am	Bldg Harmony Hills ES Floor First Room 101C	< 0.4
2400477	3915719	11/27/2018 5:24 pm - 11/30/2018 11:38 am	Bldg Harmony Hills ES Floor First Room 101D	< 0.4
2400478	3915750	11/27/2018 5:26 pm - 11/30/2018 11:40 am	Bldg Harmony Hills ES Floor First Room 115	< 0.4
2400479	3917241	11/27/2018 5:26 pm - 11/30/2018 11:40 am	Bldg Harmony Hills ES Flr First Rm 115 Duplicate	< 0.4
2400480	3915799	11/27/2018 5:28 pm - 11/30/2018 11:41 am	Bldg Harmony Hills ES Floor First Room Stage	< 0.4
2400481	3915831	11/27/2018 5:30 pm - 11/30/2018 12:00 pm	Bldg Harmony Hills ES Floor First Room 109	< 0.4
2400482	3917361	11/27/2018 5:31 pm - 11/30/2018 12:01 pm	Bldg Harmony Hills ES Floor First Room 128	0.6

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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
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400483	3917315	11/27/2018 5:32 pm - 11/30/2018 12:01 pm	Bldg Harmony Hills ES Floor First Room 130	< 0.4
2400484	3915979	11/27/2018 5:34 pm - 11/30/2018 12:02 pm	Bldg Harmony Hills ES Floor First Room 131	< 0.4
2400485	3915823	11/27/2018 5:34 pm - 11/30/2018 12:02 pm	Bldg Harmony Hills ES Floor First Room 140	0.4
2400486	3917251	11/27/2018 5:35 pm - 11/30/2018 12:03 pm	Bldg Harmony Hills ES Floor First Room 132	< 0.4
2400487	3915716	11/27/2018 5:36 pm - 11/30/2018 12:03 pm	Bldg Harmony Hills ES Floor First Room 133	< 0.4
2400488	3915798	11/27/2018 5:37 pm - 11/30/2018 12:04 pm	Bldg Harmony Hills ES Flr First Rm 133 Duplicate	< 0.4
2400489	3915745	11/27/2018 5:38 pm - 11/30/2018 12:04 pm	Bldg Harmony Hills ES Floor First Room 134	< 0.4
2400490	3915720	11/27/2018 5:39 pm - 11/30/2018 12:05 pm	Bldg Harmony Hills ES Floor First Room 135	< 0.4
2400491	3915797	11/27/2018 5:40 pm - 11/30/2018 12:05 pm	Bldg Harmony Hills ES Floor First Room 136	0.4
2400492	3915800	11/27/2018 5:41 pm - 11/30/2018 12:06 pm	Bldg Harmony Hills ES Floor First Room 137	< 0.4
2400493	3917283	11/27/2018 5:41 pm - 11/30/2018 12:06 pm	Bldg Harmony Hills ES Flr First Rm 137 Duplicate	< 0.4

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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
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400494	3915763	11/27/2018 5:42 pm - 11/30/2018 12:07 pm	Bldg Harmony Hills ES Floor First Room 139	0.9
2400495	3915851	11/27/2018 5:43 pm - 11/30/2018 12:07 pm	Bldg Harmony Hills ES Floor First Room 141	0.5
2400496	3915786	11/27/2018 5:44 pm - 11/30/2018 12:08 pm	Bldg Harmony Hills ES Floor First Room 143	0.9
2400497	3917253	11/27/2018 5:45 pm - 11/30/2018 12:09 pm	Bldg Harmony Hills ES Floor First Room 145	0.9
2400498	3915731	11/27/2018 5:46 pm - 11/30/2018 12:10 pm	Bldg Harmony Hills ES Floor First Room 146	1.1
2400499	3917260	11/27/2018 5:48 pm - 11/30/2018 12:11 pm	Bldg Harmony Hills ES Floor First Room 147	0.7
2400500	3917317	11/27/2018 5:48 pm - 11/30/2018 12:11 pm	Bldg Harmony Hills ES Flr First Rm 147 Duplicate	0.6
2400501	3917318	11/27/2018 5:49 pm - 11/30/2018 12:12 pm	Bldg Harmony Hills ES Floor First Room 148	< 0.4
2400502	3915828	11/27/2018 5:50 pm - 11/30/2018 12:12 pm	Bldg Harmony Hills ES Floor First Room 149	0.8
2400503	3915829	11/27/2018 5:50 pm - 11/30/2018 12:12 pm	Bldg Harmony Hills ES Floor First Room 150	0.4
2400504	3915830	11/27/2018 5:51 pm - 11/30/2018 12:13 pm	Bldg Harmony Hills ES Floor First Room 151	< 0.4

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Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
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MCPS Radon Survey
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400505	3915826	11/27/2018 5:52 pm - 11/30/2018 12:13 pm	Bldg Harmony Hills ES Floor First Room 035	< 0.4
2400506	3915827	11/27/2018 5:53 pm - 11/30/2018 12:13 pm	Bldg Harmony Hills ES Floor First Room 036	0.4
2400507	3917365	11/27/2018 5:55 pm - 11/30/2018 12:14 pm	Bldg Harmony Hills ES Floor First Room 037	0.4
2400508	3917316	11/27/2018 5:57 pm - 11/30/2018 12:14 pm	Bldg Harmony Hills ES Floor First Room 038	< 0.4
2400509	3915825	11/27/2018 5:57 pm - 11/30/2018 12:14 pm	Bldg Harmony Hills ES Flr First Rm 038 Duplicate	< 0.4
2400510	3917257	11/27/2018 5:58 pm - 11/30/2018 12:15 pm	Bldg Harmony Hills ES Floor First Room 031	< 0.4
2400511	3915715	11/27/2018 5:58 pm - 11/30/2018 12:15 pm	Bldg Harmony Hills ES Floor First Room 032	< 0.4
2400512	3915785	11/27/2018 5:59 pm - 11/30/2018 12:16 pm	Bldg Harmony Hills ES Floor First Room 033	0.4
2400513	3917491	11/27/2018 6:00 pm - 11/30/2018 12:16 pm	Bldg Harmony Hills ES Floor First Room 034	0.6
2400514	3917319	11/27/2018 6:02 pm - 11/30/2018 12:16 pm	Bldg Harmony Hills ES Floor First Room 026	< 0.4
2400515	3917320	11/27/2018 6:03 pm - 11/30/2018 12:17 pm	Bldg Harmony Hills ES Floor First Room 026	0.5

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Laboratory Report for:

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2930 Eskridge Road
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MCPS Radon Survey
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400516	3917366	11/27/2018 6:05 pm - 11/30/2018 12:17 pm	Bldg Harmony Hills ES Floor First Room 024	< 0.4
2400517	3917367	11/27/2018 6:05 pm - 11/30/2018 12:17 pm	Bldg Harmony Hills ES Flr First Rm 024 Duplicate	< 0.4
2400518	3917368	11/27/2018 6:06 pm - 11/30/2018 12:18 pm	Bldg Harmony Hills ES Floor First Room 009	< 0.4
2400519	3917369	11/27/2018 6:07 pm - 11/30/2018 12:19 pm	Bldg Harmony Hills ES Floor First Room 010	< 0.4
2400520	3915821	11/27/2018 6:08 pm - 11/30/2018 12:19 pm	Bldg Harmony Hills ES Floor First Room 007	< 0.4
2400521	3917370	11/27/2018 6:09 pm - 11/30/2018 12:20 pm	Bldg Harmony Hills ES Floor First Room 008	< 0.4
2400522	3917496	11/27/2018 6:10 pm - 11/30/2018 12:21 pm	Bldg Harmony Hills ES Floor First Room 006	< 0.4
2400523	3917494	11/27/2018 6:13 pm - 11/30/2018 12:22 pm	Bldg Harmony Hills ES Floor First Room 005	< 0.4
2400524	3917495	11/27/2018 6:14 pm - 11/30/2018 12:22 pm	Bldg Harmony Hills ES Floor First Room 002	< 0.4
2400525	3917497	11/27/2018 6:15 pm - 11/30/2018 12:23 pm	Bldg Harmony Hills ES Floor First Room 003	< 0.4
2400526	3917499	11/27/2018 6:16 pm - 11/30/2018 12:24 pm	Bldg Harmony Hills ES Floor First Room 004	< 0.4

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MCPS Radon Survey
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400527	3917500	11/27/2018 6:18 pm - 11/30/2018 11:45 am	Bldg Harmony Hills ES Floor First Room 109	0.4
2400528	3917431	11/27/2018 6:20 pm - 11/30/2018 11:45 am	Bldg Harmony Hills ES Floor First Room 109	< 0.4
2400529	3917432	11/27/2018 6:22 pm - 11/30/2018 11:47 am	Bldg Harmony Hills ES Floor First Room 109A	< 0.4
2400530	3917433	11/27/2018 6:23 pm - 11/30/2018 11:48 am	Bldg Harmony Hills ES Floor First Room 118	< 0.4
2400531	3915767	11/27/2018 6:25 pm - 11/30/2018 11:50 am	Bldg Harmony Hills ES Floor First Room 122	< 0.4
2400532	3917498	11/27/2018 6:26 pm - 11/30/2018 11:52 am	Bldg Harmony Hills ES Floor First Room 103	0.4
2400533	3917436	11/27/2018 6:28 pm - 11/30/2018 11:53 am	Bldg Harmony Hills ES Floor First Room 103A	0.5
2400534	3917435	11/27/2018 6:29 pm - 11/30/2018 12:27 pm	Bldg Harmony Hills ES Floor Second Room 216	< 0.4
2400535	3917362	11/27/2018 6:30 pm - 11/30/2018 12:28 pm	Bldg Harmony Hills ES Floor Second Room 224	< 0.4
2400536	3917437	11/27/2018 6:31 pm - 11/30/2018 12:29 pm	Bldg Harmony Hills ES Floor Second Room 225	< 0.4
2400537	3917434	11/27/2018 6:32 pm - 11/30/2018 12:32 pm	Bldg Harmony Hills ES Floor Second Room 213	< 0.4

Comment: A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/03/2018 Date Logged: 12/03/2018 Date Analyzed: 12/04/2018 Date Reported: 01/29/2019

Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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.

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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
Harmony Hills
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2400538	3917929	11/27/2018 5:11 pm - 11/30/2018 12:32 pm	Bldg Harmony Hills ES Field Blank	< 0.4
2400539	3917843	11/27/2018 5:11 pm - 11/30/2018 12:32 pm	Bldg Harmony Hills ES Field Blank	< 0.4
2400540	3917412	11/27/2018 5:11 pm - 11/30/2018 12:32 pm	Bldg Harmony Hills ES Field Blank	< 0.4
2400541	3917838	11/27/2018 5:11 pm - 11/30/2018 12:32 pm	Bldg Harmony Hills ES Transit Blank	< 0.4
2400542	3917847	11/27/2018 6:00 am - 11/30/2018 6:00 pm	Bldg Harmony Hills ES Office Blank	< 0.4

Comment: A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/03/2018 Date Logged: 12/03/2018 Date Analyzed: 12/04/2018 Date Reported: 01/29/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

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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 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 ~+/- 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

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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. Ashburton ES
2. Carderock Springs ES
3. Diamond ES
4. Fox Chapel ES
5. Baker MS
6. Damascus ES
7. Clemente MS
8. Clopper Mill ES
9. Broad Acres ES
10. Greencastle ES
11. Harmony Hills ES
12. Silver Spring International MS
13. Gaithersburg MS
14. Garrett Park ES
15. New Hampshire Estates ES
16. Georgian Forest ES

	Date	Initials
Radon Test Kits Deployed	11/27/2018	NL
Radon Test Kits Sampled	11/30/2018	NL
Radon Test Kits Shipped to Lab*	11/30/2018	NL
Radon Test Kits Received by Lab*	12/01/2018; 12/02/2018; 12/03/2018	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 HARMONY HILLS ELEMENTARY
SCHOOL**

13407 Lydia Street, Silver Spring, Maryland 20906

EXECUTIVE SUMMARY

Date of Test Report:	4/6/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	3
# Rooms \geq 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	<0.4
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) 2/16/16 Initial	Result (pCi/L) 4/6/16 Follow-Up	Average Result (pCi/L)
109	1.0 Open Exterior Door	<0.4	0.7
916	<0.3 Open Exterior Door	<0.4	<0.4
CAFÉ	0.6 Tampered	<0.4	0.5



MCPS RADON TESTING

Executive Summary: Harmony Hills Elementary School

Date of Test Report:	4/6/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	3
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	< 0.4

Project Status:

Retesting completed; no further action at this time.



April 6, 2016

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

Re: **Radon Testing Services**
KCI Job # 12146341.31

Location: Harmony Hills Elementary School
13407 Lydia Street
Silver Spring, MD 20906

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 Harmony Hills Elementary School, located at 13407 Lydia Street in Silver Spring, Maryland 20906 (subject site).

Scope of Services:

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

KCI visited the site on March 21, 2016 and deployed five (5) 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 TCS Industries Inc. as spike samples. The spiked tests were exposed to a known radon concentration by TCS prior to being returned to the laboratory for analysis.

KCI returned to the site on March 24, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis (certification # ARL0007) located at 929 Mount

Zion Road, Lebanon, Pennsylvania.

Evaluation of Testing Conditions:

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

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

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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 pCi/L	none	n/a
< 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 (410) 316-7800.

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank*

PM- Project Manager

QC- Quality Control

*Office blanks were submitted at a rate of 1% for all samples deployed in Phase 11 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Harmony Hills Elementary School		
Test Period: 03/21/16-03/24/16		
Kit Number	Room / Area	Result
3029255	109	<0.4
3029263	CAFETERIA	<0.4
3029241	CAFETERIA	<0.4
3029181	916	<0.4

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Harmony Hills Elementary School		
Test Period: 03/21/16-03/24/16		
Kit Number	QC Type	Result
3029254	D (109)	<0.4

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Harmony Hills ES
13407 Lydia St
Silver Spring MD 20906

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3018398	3029255	03/21/2016 10:05 am 03/24/2016 10:15 am	Unit 109 First Floor	<0.4
3018399	3029254	03/21/2016 10:10 am 03/24/2016 10:16 am	Unit 109 First Floor	<0.4
3018400	3029263	03/21/2016 10:15 am 03/24/2016 10:26 am	Cafeteria First Floor	<0.4
3018401	3029241	03/21/2016 10:20 am 03/24/2016 10:21 am	Cafeteria First Floor	<0.4
3018402	3029181	03/21/2016 10:25 am 03/24/2016 10:30 am	Portable 916 First Floor	<0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/28/2016 Date Logged: 03/28/2016 Date Analyzed: 03/28/2016 Date Reported: 03/29/2016

Report Reviewed By: Grace Heubling

Report Approved By: Carolyn D. Koke
Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

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Radon Device Type Open Face Canister

Send Written Report To:

Name KCI Technologies, Inc
 Address 936 Ridgebrook Road
 Address Sparks
 City / Town Sparks
 State/Province Postal Code MD 21152
 Report Country Baltimore County
 Email Address tehsin@kci.com

Site Tested:

Site Name Harmony Hills E.S.
 Address 13407 Lydia St
 Address
 City / Town Silver Spring
 State/Province Postal Code MD 20906
 Test Country Montgomery County
 Project Number 12146341

Contact Information:

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

Lab Use Only	Device Number	Building Number	Unit Number	Floor	Name of Room	Start Date mm/dd/yyyy	Start Time hh:mm am / pm	Stop Date mm/dd/yyyy	Stop Time hh:mm am / pm	Lab Use Only
	3029253		109	1	Temp	3/21/2016	10 ⁰⁵ AM	3/24/16	10 ¹⁵ AM	
	3029254		109	1		3/21/2016	10 ¹⁰ AM		10 ¹⁴ AM	
	3029263		Cafeteria	1		3/21/2016	10 ¹⁵ AM		10 ²⁰ AM	
	3029241		Cafeteria	1		3/21/2016	10 ²⁰ AM		10 ²⁴ AM	
	3029181		Portable 916	1		3/21/2016	10 ²⁵ AM		10 ³⁰ AM	

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

MCPS Radon Phase 11 (re-testing) Office Blank

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3018362	3029232	03/21/2016 8:00 am 03/24/2016 8:00 am	Unit O First Floor Main Room	<0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/28/2016 Date Logged: 03/28/2016 Date Analyzed: 03/28/2016 Date Reported: 03/29/2016

Report Reviewed By: Grace Heubling

Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

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Radon Device Type Open Face Canister

Send Written Report To:

Name	KCI Technologies, Inc
Address	936 Ridgebrook Road
Address	
City / Town	Sparks
State/Province Postal Code	MD 21152
Report Country	Baltimore County
Email Address	tehsin@kci.com

Site Tested:

Site Name	KCI OFFICE
Address	936 RIDGEBROOK RD
Address	
City / Town	SPARKS
State/Province Postal Code	MD 21152
Test Country	Montgomery County
Project Number	12146341

Contact Information:

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

Lab Use Only	Device Number	Building Number	Unit Number	Floor	Name of Room	Temp	Start Date mm/dd/yyyy	Start Time hh:mm am / pm	Stop Date mm/dd/yyyy	Stop Time hh:mm am / pm	Lab Use Only
	302A232		0	1	MAIN	72	3/21/2016	8:00 AM	3/24/2016	8:00 AM	

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

Property Tested:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

MCPS
Transit Blanks

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3010588	3028953	01/19/2016 1:00 pm	01/22/2016 9:30 am	1	< 0.4
3010589	3028955	01/19/2016 1:00 pm	01/22/2016 9:30 am	2	< 0.4
3010590	3028954	01/19/2016 1:00 pm	01/22/2016 9:30 am	3	< 0.4
3010591	3028997	01/19/2016 1:00 pm	01/22/2016 9:30 am	4	< 0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 01/27/2016 Date Logged: 01/27/2016 Date Analyzed: 01/28/2016 Date Reported: 01/28/2016

Report Reviewed By: Christie Bates

Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

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Return canisters for analysis to:
AccuStar Labs
929 Mt. Zion Rd., Lebanon, PA 17046
800-523-4964

AccuStar Labs - Lebanon, PA
INFORMATION FORM - Large Buildings -
Projects - Apartments

Instructions on back of form
Read instructions carefully
Discrepancies will invalidate tests

Test Site Info

Name of Building/Project or Owner: Transit
 Site Address: Transit
 City: _____ State: _____ Zip: _____ County: _____
 Projects Contact Name: Don Coale Phone: _____ Email: _____

Do not use this form in
New Jersey or Florida
Call for correct forms.

Multi-Page Report Y-N

LAB USE ONLY	
Wgt. Gain	pCi/L
	204
	204
	204
	204

Detector Serial#	ROOM NAME & NUMBER - LOCATION OF DETECTOR IN ROOM (indicate duplicates and blanks)	Floor	Start Date	Start Time Include AM/PM	Stop Date	Stop Time Include AM/PM
3028953	Transit	1	1/19/16	approx: 00pm 1/23/16		9:30am
8955	Transit	1	1/19/16			
8954	Transit	1	1/19/16			
8997	Transit	1	1/19/16			

1/27/2016
 KCI Technologies, Inc.
 3010588 3028953 ACPC275B EXP12/31/2018

Structure Type: (circle one or more) Basement - Crawlspace - Slab on Grade - Other
Test Purpose: (Circle all that apply) Initial Screening - Follow Up Test - Post Mitigation - Real Estate - Other
Building Type: (Circle One) Residential - Non Residential Private Day Care - Private School Day Care in Public School - Public School

Both Placed by and Retrieved by signatures are required
Canisters placed by _____ # _____
Canisters retrieved by _____ # _____

Owner waives confidentiality by signing here _____ Date 1/27/16
 Attention: James Mouldale

Were general operating conditions maintained?	Yes - No	explain if NO
Were closed building conditions maintained?	Yes - No	explain if NO
Normal Temp.	Yes - No	
Normal Humidity	Yes - No	
Windy Y-N	Rainy Y-N	

Send Results To: _____
 Company Name: KCI Tech
 Address: 936 Ridgebrook
 City: Sparks State: MD Zip: 21152
 Phone: 410-599-3826
 EMAIL Results to: James.Mouldale@kci.com Fax: _____

Make sure information is complete and correct.
 If a recalculation is requested there is a \$10.00 recalc fee PER Canister.

Mailing: PO Box 990 Jonestown, PA 17038
 Shipping: 929 Mt Zion Road, Lebanon, PA 17046
 800-523-4964 fax 717-274-5662
 NEHA 10511AL NRSB ARL 0007

TCS INDUSTRIES, INC.

(717) 657-7032

RADON GAS DETECTION

www.radondetek.com

4326 Crestview Road, Harrisburg, PA 17112

James Mouldale
KCI
936 Ridgebrook Rd.
Sparks, MD 21152

April 04, 2016

Dear Mr. Mouldale:

The spike exposure data were:

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

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

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

Avg. Temp. was 71F
Avg. RH was 51%
Elevation was 490 feet above sea level

Sincerely,



Carl H. Distenfeld, CHP

TCS Radon Chamber NRSB CHM 0002

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

Property Tested:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

MCPS
Radon Spike Sample Laboratory Results


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3020102	3029166	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.9
3020103	3029214	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.5
3020104	3029217	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	10.7
3020105	3029218	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.3
3020106	3029219	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.0
3020107	3029220	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	10.5

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

Distributed by: KCI Technologies, Inc.

Date Received: 04/07/2016 Date Logged: 04/07/2016 Date Analyzed: 04/07/2016 Date Reported: 04/08/2016

Note: Spike samples are test canisters 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.

Report Reviewed By: 

Report Approved By: 
Carolyn D. Koke, President, AccuStar Labs

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.



MCPS RADON TESTING

Executive Summary: Harmony Hills Elementary School

Date of Test Report:	2/16/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	74
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.4

Project Status:

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



February 16, 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 # 12146341.25

Location: Harmony Hills Elementary School
13407 Lydia Street
Silver Spring, MD 20906

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 Harmony Hills Elementary School, located at 13407 Lydia Street in Silver Spring, Maryland 20906 (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 January 19, 2016 and deployed ninety (90) 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 January 22, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

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

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

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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 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. Mouldale
Radon Measurement Specialist
KCI Technologies, Inc.

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Harmony Elementary School		
Test Period: 01/19/16-01/22/16		
Kit Number	Room / Area	Result
7712891	2	< 0.3
7714330	3	< 0.3
7717503	4	0.6
7710062	5	0.5
7712892	6	< 0.3
7717545	7	< 0.3
7717541	8	0.5
7717546	9	< 0.3
7717531	10	< 0.3
7717542	24	< 0.3
7717540	26	< 0.3
7717544	26	< 0.3
7717537	31	1
7717536	32	0.7
7717543	33	1
7717529	34	0.9
7717526	35	0.6
7717523	36	0.6
7717533	37	< 0.3
7717524	38	1
7710063	101	< 0.3
7705062	103	< 0.3
7706702	104	0.7
7717514	104	0.8
7717513	110	< 0.3
7717515	111	< 0.3
7704230	117	< 0.3
7710061	118	< 0.3
7717504	122	< 0.3
7717560	128	0.8
7717577	130	0.7
7717564	131	0.6
7717563	132	< 0.3
7717567	133	< 0.3
7717570	134	< 0.3
7717558	135	< 0.3
7717561	136	< 0.3
7717571	137	< 0.3
7717573	139	0.8
7717562	140	0.6
7717568	141	0.8
7717528	143	1
7717527	145	1.3
7717539	146	1.4
7717525	147	1.1
7717521	148	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Harmony Elementary School		
Test Period: 01/19/16-01/22/16		
Kit Number	Room / Area	Result
7717538	149	0.9
7717522	150	< 0.3
7717534	151	0.7
7717556	214	< 0.3
7717552	215	< 0.3
7717547	224	< 0.3
7717551	909	< 0.3
7717565	938	< 0.3
7717548	961	< 0.3
7717566	965	< 0.3
7712888	100A	< 0.3
7710060	100B	< 0.3
7710066	100C	1
7717506	101B	< 0.3
7717517	101C	0.7
7717501	101D	0.7
7717507	101E	< 0.3
7717518	101F	< 0.3
7717520	101G	0.6
7717505	101H	< 0.3
7717502	103A	0.7
7706715	* 109 (open exterior door)	0.8
7710064	* 109 (open exterior door)	1
7717512	109A	0.7
7712886	109B	0.7
7717519	111A	0.8
7704648	117A	0.6
7717508	118A	0.7
7717572	* 916 (open exterior door)	< 0.3
7717509	CAFE	< 0.3
7717510	* CAFE (tampered)	0.6
7717516	MAIN OFFICE	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Harmony Elementary School		
Test Period: 01/19/16-01/22/16		
Kit Number	QC Type	Result
7717511	D (103)	0.8
7714326	D (109A)	0.8
7717553	D (134)	< 0.3
7717569	D (137)	< 0.3
7717554	D (140)	0.6
7717550	D (143)	1
7717549	D (224)	< 0.3
7717530	D (34)	1.4
7712887	FB (110)	< 0.3
7717532	FB (147)	< 0.3
7717535	FB (32)	< 0.3
7717574	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
HARMONY ELEMENTARY SCHOOL
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7717574		2016-01-19 @ 12:00 pm	2016-01-22 @ 11:00 am	< 0.3	2016-01-27
7717531	10	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7712888	100A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7710060	100B	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7710066	100C	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	1.0 ± 0.4	2016-01-27
7710063	101	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717506	101B	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717517	101C	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.7 ± 0.3	2016-01-27
7717501	101D	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.7 ± 0.3	2016-01-27
7717507	101E	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717518	101F	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717520	101G	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7717505	101H	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7705062	103	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717511	103	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	0.8 ± 0.3	2016-01-27
7717502	103A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.7 ± 0.3	2016-01-27
7706702	104	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.7 ± 0.4	2016-01-27
7717514	104	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.8 ± 0.3	2016-01-27
7706715	109	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.8 ± 0.4	2016-01-27
7710064	109	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	1.0 ± 0.4	2016-01-27
7714326	109A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.8 ± 0.3	2016-01-27
7717512	109A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.7 ± 0.3	2016-01-27
7712886	109B	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	0.7 ± 0.3	2016-01-27
7712887	110	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717513	110	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717515	111	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717519	111A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.8 ± 0.4	2016-01-27
7704230	117	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7704648	117A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7710061	118	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-26
7717508	118A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.7 ± 0.3	2016-01-27
7717504	122	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717560	128	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.8 ± 0.4	2016-01-27
7717577	130	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.7 ± 0.3	2016-01-27
7717564	131	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7717563	132	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717567	133	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27

Radon test result report for:
HARMONY ELEMENTARY SCHOOL

1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7717553	134	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717570	134	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717558	135	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717561	136	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717569	137	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717571	137	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717573	139	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.8 ± 0.3	2016-01-27
7717554	140	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7717562	140	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.6 ± 0.3	2016-01-27
7717568	141	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.8 ± 0.3	2016-01-27
7717528	143	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	1.0 ± 0.3	2016-01-27
7717550	143	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	1.0 ± 0.3	2016-01-27
7717527	145	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	1.3 ± 0.4	2016-01-27
7717539	146	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	1.4 ± 0.4	2016-01-27
7717525	147	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	1.1 ± 0.4	2016-01-27
7717532	147	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717521	148	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717538	149	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.9 ± 0.3	2016-01-27
7717522	150	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717534	151	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.7 ± 0.3	2016-01-27
7712891	2	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717556	214	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717552	215	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717547	224	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717549	224	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717542	24	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717540	26	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717544	26	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7714330	3	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717537	31	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	1.0 ± 0.4	2016-01-27
7717535	32	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717536	32	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.7 ± 0.3	2016-01-27
7717543	33	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	1.0 ± 0.4	2016-01-27
7717529	34	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.9 ± 0.4	2016-01-27
7717530	34	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	1.4 ± 0.4	2016-01-27
7717526	35	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7717523	36	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27

February 11, 2016
LABORATORY ANALYSIS REPORT

Radon test result report for:
HARMONY ELEMENTARY SCHOOL
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7717533	37	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717524	38	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	1.0 ± 0.4	2016-01-27
7717503	4	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7710062	5	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	0.5 ± 0.3	2016-01-27
7712892	6	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717545	7	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717541	8	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.5 ± 0.3	2016-01-27
7717546	9	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717551	909	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717572	916	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7717565	938	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717548	961	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717566	965	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7717509	CAFE	2016-01-19 @ 11:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-27
7717510	CAFE	2016-01-19 @ 11:00 am	2016-01-22 @ 8:00 am	0.6 ± 0.3	2016-01-27
7717516	MAIN OFFICE	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27

February 2, 2016
LABORATORY ANALYSIS REPORT

Radon test result report for:
MCPS PHASE 5 & 6 TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722194	1	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718494	10	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718475	11	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718495	12	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718496	13	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718497	14	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718498	15	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718499	16	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718500	17	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718296	18	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718295	19	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722195	2	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716789	20	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716785	21	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-26
7716791	22	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716786	23	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716793	24	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718274	25	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716792	26	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718294	27	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718293	28	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718292	29	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722197	3	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718290	30	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722198	4	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722199	5	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722211	6	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718491	7	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718476	8	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-26
7718479	9	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27

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 _____

ε3 Left

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

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

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

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

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

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

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



Chain of Custody

Project Name: MCPS Radon Phase VI

Name of Schools:

- | | | |
|--------------------------|------------------------------|---------------------------|
| 1. Francis Scott Key MS | 12. Little Bennett ES | 23. Rolling Terrace ES |
| 2. Gaithersburg ES | 13. Loiderman MS | 24. Roscoe Nix ES |
| 3. Gaithersburg MS | 14. Longview ES | 25. Sally K. Ride ES |
| 4. Galway ES | 15. Meadow Hall ES | 26. Spark Matsunaga ES |
| 5. Great Seneca Creek ES | 16. Neelsville MS | 27. Tacoma Park ES |
| 6. Harmony Hills ES | 17. New Hampshire Estates ES | 28. Thomas Pyle MS |
| 7. John Poole MS | 18. North Bethesda MS | 29. Wayside ES |
| 8. Judith A. Resnik ES | 19. Northwest HS | 30. Westbrook ES (retest) |
| 9. Kemp Mill ES | 20. Pine Crest ES | 31. Westland MS (retest) |
| 10. Kingsview MS | 21. Radnor Center | 32. William B. Gibbs ES |
| 11. Lakelands Park MS | 22. Ritchie Park ES | 33. William Tyler Page ES |

	Date	Initials
Radon Test Kits Deployed	1/19/16	JM
Radon Test Kits Sampled	1/22/16	JM
Radon Test Kits Shipped to Lab*	1/22/16	JM
Radon Test Kits Received by Lab*	1/26/16	JM

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