



MCPS RADON TESTING

Executive Summary: Carver Educational Service Center

Date of Test Report:	3/3/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	153
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	3.0

Project Status:

Initial testing completed; no further action at this time.



March 3, 2016

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

Re: **Radon Testing Services**
KCI Job # 12146341.26

Location: Carver Educational Service Center
850 Hungerford Drive
Rockville, MD 20850

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 Carver Educational Service Center, located at 850 Hungerford Drive in Rockville, Maryland 20850 (subject site).

Scope of Services:

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

KCI visited the site on February 2, 2016 and deployed one hundred seventy-seven (177) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted six (6) test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner prior to being returned to the laboratory for analysis.

KCI returned to the site on February 5, 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

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

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

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

Sincerely,



James M. 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

ATTACHMENT C

Laboratory Analytical Results

Radon Testing Results		
Carver Educational Service Center		
Test Period: 02/02/16-02/05/16		
Kit Number	Room / Area	Result
7732543	10	0.9
7732535	11	0.6
7732551	11	< 0.3
7732529	20	0.8
7732527	21	< 0.3
7732511	24	0.6
7732512	25	0.9
7732523	26	1.0
7732521	27	< 0.3
7732524	31	< 0.3
7732552	41	0.6
7732568	43	< 0.3
7732576	50	< 0.3
7732584	51	< 0.3
7732586	55	< 0.3
7732596	56	0.6
7732597	59	0.9
7732598	61	1.2
7731701	62	1.5
7731734	100	1.2
7731749	101	< 0.3
7732504	108	0.6
7731755	110	< 0.3
7732501	112	< 0.3
7731763	113	1.2
7731761	114	1.0
7731764	120	0.6
7731765	122	0.6
7731752	131	< 0.3
7731707	174	0.9
7731712	177	1.3
7731724	178	1.2
7731725	179	1.2
7731728	180	1.0
7731729	181	0.6
7731722	182	0.8
7731769	200	< 0.3
7731777	201	< 0.3
7731730	100A	1.3
7731731	100B	0.9
7731732	100C	0.9
7731733	100D	0.8
7731735	100E	0.6
7731737	100F	0.8
7731738	100G	1.0
7731739	100H	1.0

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Carver Educational Service Center		
Test Period: 02/02/16-02/05/16		
Kit Number	Room / Area	Result
7731740	100I	1.0
7731741	100J	0.8
7731742	100K	1.0
7731743	100L	1.2
7731744	100M	1.4
7731745	100N	1.2
7731746	100O	1.2
7731747	100P	1.3
7731748	100Q	1.4
7731750	107A	0.6
7731751	107B	0.6
7732507	108A	< 0.3
7732508	108B	< 0.3
7732509	108C	< 0.3
7731757	112B	< 0.3
7731758	112C	< 0.3
7731760	112D	0.5
7732536	11A	0.8
7732537	11B	1.0
7732538	11C	0.8
7732539	11D	0.6
7732540	11E	1.0
7732541	11F	0.7
7732542	11G	0.6
7732544	11H	0.7
7732545	11I	1.0
7732546	11J	0.6
7732547	11K	1.2
7732548	11L	0.7
7732549	11M	0.6
7732550	11N	0.6
7731766	122A	< 0.3
7731767	122B	< 0.3
7731768	122C	< 0.3
7731753	131A	< 0.3
7731754	131B	0.6
7732518	15C	1.1
7732534	16A	0.8
7731709	174A	0.6
7731710	174B	1.1
7731711	174C	1.2
7731713	177A	1.3
7731714	177B	1.2
7731715	177C	1.1
7731716	177D	1.4
7731717	177E	1.1
7731718	177F	1.1
7731720	177G	1.2
7731721	177H	1.3
7731723	179A	1.0

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Carver Educational Service Center		
Test Period: 02/02/16-02/05/16		
Kit Number	Room / Area	Result
7731770	200A	< 0.3
7731772	200B	< 0.3
7731773	200C	< 0.3
7731774	200D	< 0.3
7731775	200E	< 0.3
7731776	200F	< 0.3
7732533	20A	< 0.3
7732530	20B	0.6
7732531	20C	0.8
7732532	20D	0.5
7732510	23C	0.5
7732513	25A	0.9
7732514	25B	1.2
7732515	25C	1.0
7732516	25D	1.0
7732517	25E	0.9
7732520	29A	1.3
7732519	29B	1.0
7732525	31A	0.7
7732526	31B	1.0
7732556	41A	< 0.3
7732558	41B	0.5
7732559	41C	0.5
7732560	41D	< 0.3
7732561	41E	< 0.3
7732562	41F	< 0.3
7732555	41G	< 0.3
7732557	41H	< 0.3
7732563	41I	0.6
7732564	41J	< 0.3
7732565	41K	0.5
7732566	41L	0.6
7732567	41M	< 0.3
7732570	43A	< 0.3
7732571	43B	0.7
7732572	43C	0.6
7732573	43D	< 0.3
7732574	43E	< 0.3
7732575	43F	< 0.3
7732577	50A	< 0.3
7732578	50B	0.6
7732579	50C	0.6
7732580	50D	< 0.3
7732582	51A	< 0.3
7732583	51A 2	0.6
7732595	55A	< 0.3
7732594	55B	< 0.3
7732593	55C	0.6
7732592	55D	< 0.3
7732591	55E	0.7

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Carver Educational Service Center		
Test Period: 02/02/16-02/05/16		
Kit Number	Room / Area	Result
7732590	55F	< 0.3
7732589	55G	0.6
7732588	55I	0.5
7732599	62A	1.2
7732600	62B	1.4
7731704	62C	3.0
7731705	62D	1.5
7731706	62E	1.1

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Carver Educational Service Center		
Test Period: 02/02/16-02/05/16		
Kit Number	QC Type	Result
7731736	D (100E)	0.6
7732505	D (108)	0.8
7731756	D (110)	0.7
7732502	D (112)	< 0.3
7731762	D (114)	1.1
7731708	D (174)	0.7
7731719	D (177F)	1.3
7731726	D (179)	1
7731771	D (200A)	< 0.3
7732528	D (21)	0.6
7732553	D (41)	< 0.3
7732569	D (43)	< 0.3
7732581	D (50D)	0.7
7732585	D (51)	0.7
7732587	D (55)	< 0.3
7731702	D (62)	1.4
7732506	FB (108)	< 0.3
7732503	FB (112)	< 0.3
7731727	FB (179)	< 0.3
7732554	FB (41)	< 0.3
7731703	FB (62)	< 0.3
7730075	OB (0)	< 0.3
7730074	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

March 3, 2016
** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**CARVER EDUCATIONAL SERVICE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730074	0	2016-02-02 @ 5:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7730075	0	2016-02-02 @ 5:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7732543	10	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.9 ± 0.3	2016-02-09
7731734	100	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.4	2016-02-09
7731730	100A	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.3 ± 0.4	2016-02-09
7731731	100B	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.9 ± 0.3	2016-02-09
7731732	100C	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.9 ± 0.3	2016-02-09
7731733	100D	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.8 ± 0.3	2016-02-09
7731735	100E	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731736	100E	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731737	100F	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.8 ± 0.4	2016-02-09
7731738	100G	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731739	100H	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731740	100I	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731741	100J	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.8 ± 0.3	2016-02-09
7731742	100K	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731743	100L	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09
7731744	100M	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.4 ± 0.4	2016-02-09
7731745	100N	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09
7731746	100O	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.4	2016-02-09
7731747	100P	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.3 ± 0.3	2016-02-09
7731748	100Q	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.4 ± 0.4	2016-02-09
7731749	101	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731750	107A	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731751	107B	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732504	108	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732505	108	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.8 ± 0.3	2016-02-09
7732506	108	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732507	108A	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732508	108B	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732509	108B	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732535	11	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732551	11	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731755	110	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731756	110	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732501	112	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732502	112	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09

March 3, 2016
** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**CARVER EDUCATIONAL SERVICE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7732503	112	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7731757	112B	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731758	112C	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731760	112D	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.5 ± 0.3	2016-02-09
7731763	113	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.4	2016-02-09
7731761	114	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731762	114	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	1.1 ± 0.3	2016-02-09
7732536	11A	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.8 ± 0.3	2016-02-09
7732537	11B	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732538	11C	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.8 ± 0.3	2016-02-09
7732539	11D	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732540	11E	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732541	11F	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732542	11G	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732544	11H	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732545	11I	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7732546	11J	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732548	11L	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732549	11M	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732550	11N	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731764	120	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731765	122	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731766	122A	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731767	122B	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731768	122C	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731752	131	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731753	131A	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731754	131B	2016-02-02 @ 2:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732518	15C	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.1 ± 0.3	2016-02-09
7732534	16A	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.8 ± 0.3	2016-02-09
7731707	174	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.9 ± 0.3	2016-02-09
7731708	174	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7731709	174A	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731710	174B	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.1 ± 0.3	2016-02-09
7731711	174C	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09
7731712	177	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.3 ± 0.3	2016-02-09
7731713	177A	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.3 ± 0.4	2016-02-09

March 3, 2016
** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**CARVER EDUCATIONAL SERVICE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7731714	177B	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.4	2016-02-09
7731715	177C	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.1 ± 0.3	2016-02-09
7731716	177D	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.4 ± 0.3	2016-02-09
7731717	177E	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.1 ± 0.3	2016-02-09
7731718	177F	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.1 ± 0.3	2016-02-09
7731719	177F	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.3 ± 0.3	2016-02-09
7731720	177G	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09
7731721	177H	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.3 ± 0.4	2016-02-09
7731724	178	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.4	2016-02-09
7731725	179	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.4	2016-02-09
7731726	179	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731727	179	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7731723	179A	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731728	180	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.0 ± 0.3	2016-02-09
7731729	181	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7731722	182	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.8 ± 0.3	2016-02-09
7732529	20	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.8 ± 0.3	2016-02-09
7731769	200	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731770	200A	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731771	200A	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731772	200B	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731773	200C	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731774	200D	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731775	200E	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731776	200F	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7731777	201	2016-02-02 @ 2:00 pm	2016-02-05 @ 10:00 am	< 0.3	2016-02-09
7732533	20A	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732530	20B	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732531	20C	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.8 ± 0.3	2016-02-09
7732532	20D	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.5 ± 0.3	2016-02-09
7732527	21	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732528	21	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732510	23C	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.5 ± 0.3	2016-02-09
7732511	24	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.6 ± 0.3	2016-02-09
7732512	25	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.9 ± 0.3	2016-02-09
7732513	25A	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.9 ± 0.3	2016-02-09
7732514	25B	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	1.2 ± 0.3	2016-02-09

March 3, 2016
** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**CARVER EDUCATIONAL SERVICE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7732515	25C	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732516	25D	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732517	25E	2016-02-02 @ 11:00 am	2016-02-05 @ 8:00 am	0.9 ± 0.3	2016-02-09
7732523	26	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732521	27	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732520	29A	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.3 ± 0.4	2016-02-09
7732519	29B	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732524	31	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	< 0.3	2016-02-09
7732525	31A	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	0.7 ± 0.3	2016-02-09
7732526	31B	2016-02-02 @ 12:00 pm	2016-02-05 @ 8:00 am	1.0 ± 0.3	2016-02-09
7732552	41	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732553	41	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732554	41	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732556	41A	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732558	41B	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.5 ± 0.3	2016-02-09
7732559	41C	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.5 ± 0.3	2016-02-09
7732560	41D	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732561	41E	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732562	41F	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732555	41G	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732557	41H	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732563	41I	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732564	41J	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732565	41K	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.5 ± 0.3	2016-02-09
7732566	41L	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732567	41M	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732568	43	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732569	43	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732570	43A	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732571	43B	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732572	43C	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732573	43D	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732574	43E	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732575	43F	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732576	50	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732577	50A	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732578	50B	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09

March 3, 2016
** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**CARVER EDUCATIONAL SERVICE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7732579	50C	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732580	50D	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732581	50D	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732584	51	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732585	51	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732582	51A	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732583	51A 2	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732586	55	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732587	55	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732595	55A	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732594	55B	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732593	55C	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732592	55D	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732591	55E	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.7 ± 0.3	2016-02-09
7732589	55G	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732590	55G	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732588	55I	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	0.5 ± 0.3	2016-02-09
7732596	56	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.6 ± 0.3	2016-02-09
7732597	59	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	0.9 ± 0.3	2016-02-09
7732598	61	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09
7731701	62	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.5 ± 0.4	2016-02-09
7731702	62	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.4 ± 0.4	2016-02-09
7731703	62	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	< 0.3	2016-02-09
7732599	62A	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09
7732600	62B	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.4 ± 0.3	2016-02-09
7731704	62C	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	3.0 ± 0.4	2016-02-09
7731705	62D	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.5 ± 0.3	2016-02-09
7731706	62E	2016-02-02 @ 1:00 pm	2016-02-05 @ 9:00 am	1.1 ± 0.3	2016-02-09
7732547	K	2016-02-02 @ 12:00 pm	2016-02-05 @ 9:00 am	1.2 ± 0.3	2016-02-09

February 23, 2016
LABORATORY ANALYSIS REPORT

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

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

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



Radon Test Kit Chain of Custody

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

Name of School/Facility:

- | | | |
|----------------------------|-----------------------------|----------------------------|
| 1. Wyngate E.S. | 10. Bethesda Depot | 18. Stone Mill E.S. |
| 2. Seven Locks E.S. | 11. Bethesda Trans Depot | 19. Strawberry Knoll E.S. |
| 3. Takoma Park M.S. | 12. Sligo M.S. | 20. Shady Grove M.S. |
| 4. Somerset E.S. | 13. Stonegate E.S. | 21. Washington Grove E.S. |
| 5. Silver Spring Int. M.S. | 14. Randolph Transportation | 22. Sherwood E.S. |
| 6. Sligo Creek E.S. | 15. Earl B. Wood M.S. | 23. Woodfield E.S. |
| 7. Tilden M.S. | 16. Sargent Shriver E.S. | 24. Taylor Learning Center |
| 8. Tilden Center | 17. Thomas Wooten H.S. | 25. Kingsley Wilderness |
| 9. Bethesda Annex | | |

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

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



Radon Test Kit Chain of Custody

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

Name of School/Facility:

- | | |
|--------------------------------|--------------------------------|
| 1. Concord Center | 8. Food & Nutritional Services |
| 2. Lynnbrook Center | 9. Fairland Center |
| 3. Carver (CESC) | 10. Redland M.S. (retest) |
| 4. Spring Mill (area 1 Office) | 11. Clarksburg Trans Depot |
| 5. Wheaton H.S | 12. Clarksburg Main Depot |
| 6. Montrose Center | 13. Clarksburg E.S. |
| 7. West Farm Trans Depot | |

	Date	Initials
Radon Test Kits Deployed	2/2/16	JM
Radon Test Kits Collected	2/5/16	JM
Radon Test Kits Shipped to Lab*	2/5/16	JM
Radon Test Kits Received by Lab*	2/9/16	JM

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