



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Bethesda Elementary School
Date of Report	2/21/2020
Round of Testing	Initial Follow-up Post Remediation 2 year testing 5 year testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested	42
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.3 pCi/L

Project Status

Current Project Status at this time: Testing Complete; no further action.



2/21/2020

Mr. Richard Cox, MS
Environmental Team Leader
Montgomery County Public Schools
Division of Maintenance
Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #12146341126

Location: Bethesda Elementary School

7600 Arlington Road
Bethesda, Maryland 20814

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a “short-term” 3-day radon test for the Bethesda Elementary School, located at 7600 Arlington Road in Bethesda, Maryland 20814 (subject site).

SCOPE OF SERVICES

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

KCI visited the site on 1/6/2020 and deployed fifty-three (53) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted sixty (60) test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner, Inc. prior to being returned to the laboratory for analysis.

KCI returned to the site on 1/9/2020 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a National Radon Safety Board (NRSB) radon measurement provider and is a certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the upper-20s and high temperatures were in the mid-50s. Maximum sustained winds ranged from 10-23 miles per hour. Average humidity was around 64%. 0.32 inches of precipitation (rain) was recorded during the testing period.

RESULTS

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Mr. Tyler P. McCleaf
Radon Measurement Provider
111004 RT

KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Bethesda Elementary School		
Test Period: 1/6/2020-1/9/2020		
Kit Number	Room / Area	Result
9339784	OFFICE BLANK	< 0.3
9347304	100	< 0.3
9347481	100	< 0.3
9347306	100	< 0.3
9347463	100A	< 0.3
9347480	100B	< 0.3
9347474	101	< 0.3
9347482	101	< 0.3
9347471	101 OFFICE	< 0.3
9347473	101 TV STUDIO	< 0.3
9347479	102	< 0.3
9347458	103	< 0.3
9347464	105	< 0.3
9347457	106	< 0.3
9347462	107	< 0.3
9347461	111	< 0.3
9347478	112	< 0.3
9347475	113	< 0.3
9347302	114	< 0.3
9347477	114	< 0.3
9347459	116	< 0.3
9347483	116	< 0.3
9347496	118	< 0.3
9347460	120	< 0.3
9347466	125	< 0.3
9347467	125	< 0.3
9347465	125A	< 0.3
9347469	127	< 0.3
9347472	130	< 0.3
9347485	133	< 0.3
9347489	135	< 0.3
9347456	136	< 0.3
9347499	137	< 0.3
9347497	137	< 0.3
9347500	141	< 0.3
9347476	143	< 0.3
9347455	144	< 0.3
9347470	145	< 0.3
9347468	146	< 0.3
9347484	148	< 0.3
9347305	148	< 0.3
9347301	148	< 0.3

9347486	151	< 0.3
9347494	151	< 0.3
9347303	151	< 0.3
9347495	153	< 0.3
9347498	159	< 0.3
9347491	161	< 0.3
9347487	162	< 0.3
9347488	163	< 0.3
9347490	205B	< 0.3
9347493	207	< 0.3
9347492	232	< 0.3

Table 2- Radon Testing Results			
Bethesda Elementary School			
Test Period: 1/6/2020-1/9/2020			
Kit Number	QC Type	Room / Area	Result
9347304	FB	100	<0.3
9347306	D	100	<0.3
9347302	D	114	<0.3
9347303	FB	151	<0.3
9347486	D	151	<0.3
9347497	D	137	<0.3
9347305	FB	148	<0.3
9347301	D	148	<0.3
9348319	TRANSIT BLANK	NA	<0.3
9348320	TRANSIT BLANK	NA	<0.3
9348313	TRANSIT BLANK	NA	<0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

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

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

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

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

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

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc Job Number 193598

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

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

Time Start: 0830 Time Stop: 0830

(Group 4)
Device No.'s: (20) Char. Bags -

9340061 thru 9340080

Temp of _____
RH % _____
Avg pCi/L _____

52

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

Time Start: 0835 Time Stop: 0835

(Group 5)
Device No.'s: (20) Char. Bags -

9340081 thru 9340100

Temp of _____
RH % _____
Avg pCi/L _____

25

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

Time Start: 0840 Time Stop: 0840

(Group 6)
Device No.'s: (20) Char. Bags -

9341701 thru 9341720

Temp of _____
RH % _____
Avg pCi/L _____

25

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

Radon test result report for:
BETHESDA ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347304	100	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347481	100	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347306	100	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347463	100A	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347480	100B	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347474	101	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347482	101	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347471	101 OFFICE	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347473	101 TV STUDIO	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347479	102	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347458	103	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347464	105	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347457	106	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347462	107	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347461	111	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347478	112	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347475	113	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347302	114	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347477	114	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347459	116	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347483	116	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347496	118	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347460	120	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347466	125	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347467	125	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347465	125A	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347469	127	2020-01-06 @ 1:00 pm	2020-01-13 @ 12:00 pm	< 0.3	2020-01-14
9347472	130	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347485	133	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347489	135	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347456	136	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347499	137	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347497	137	2020-01-06 @ 3:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347500	141	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347476	143	2020-01-06 @ 1:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347455	144	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347470	145	2020-01-06 @ 1:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14

Radon test result report for:
BETHESDA ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347468	146	2020-01-06 @ 1:00 am	2020-01-13 @ 12:00 pm	< 0.3 L	2020-01-14
9347484	148	2020-01-06 @ 1:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347305	148	2020-01-06 @ 3:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347301	148	2020-01-06 @ 3:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347486	151	2020-01-06 @ 3:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347494	151	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347303	151	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347495	153	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347498	159	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347491	161	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347487	162	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347488	163	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14
9347490	205B	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347493	207	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 am	< 0.3	2020-01-14
9347492	232	2020-01-06 @ 2:00 am	2020-01-13 @ 1:00 pm	< 0.3 L	2020-01-14



Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 3

Name of Schools:

- | | |
|------------------------------|----------------------------|
| 1. Bannockburn E.S. | 12. Montgomery Knolls E.S. |
| 2. Bethesda E.S. | 13. Newport Mills M.S. |
| 3. Bethesda-Chevy Chase H.S. | 14. Oak View E.S. |
| 4. Bradley Hill E.S. | 15. Rock View E.S. |
| 5. Burning Tree E.S. | 16. Roscoe Nix E.S. |
| 6. Burnt Mills E.S. | 17. Sligo M.S. |
| 7. East Silver Springs E.S. | 18. Spring Mill Center |
| 8. Einstein H.S. | 19. Springbrook H.S. |
| 9. Flora Singer E.S. | 20. Westland M.S. |
| 10. Key M.S. | 21. Woodlin M.S. |
| 11. Montgomery Blair H.S. | |

	Date	Initials
Radon Test Kits Deployed	1/6/20 to 1/7/20	JM
Radon Test Kits Collected	1/9/20 to 1/10/20	JM
Radon Test Kits Shipped to Lab*	1/10/20	JM
Radon Test Kits Received by Lab*	1/13/202	JM

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

RADON SCREENING SURVEY – FOLLOW-UP BETHESDA ELEMENTARY SCHOOL

7600 Arlington Road, Bethesda, Maryland 20814

EXECUTIVE SUMMARY

Date of Test Report:	3/29/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	1
# 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) 2/3/16 (Rev 1 Initial)	Result (pCi/L) 3/29/16 Follow-Up	Average Result (pCi/L)
106 Work Rm	<0.3 Tampered	<0.4	<0.4



MCPS RADON TESTING

Executive Summary: Bethesda Elementary School

Date of Test Report:	3/29/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	1
# 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.



March 29, 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 # 12146341.30

Location: Bethesda Elementary School
7600 Arlington Road
Bethesda, MD 20814

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 Bethesda Elementary School, located at 7600 Arlington Road in Bethesda, Maryland 20814 (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 29, 2016 and deployed three (3) 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 March 3, 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 field blank, 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 10 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Bethesda Elementary School		
Test Period: 02/29/16-03/03/16		
Kit Number	Room / Area	Result
3028900	106	<0.4

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Bethesda Elementary School		
Test Period: 02/29/16-03/03/16		
Kit Number	QC Type	Result
3028776	D (106)	<0.4
3028775	FB (106)	<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


Bethesda Elementary School
7600 Arlington Road
Bethesda MD 20814

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3015286	3028775	02/29/2016 9:47 am	03/03/2016 7:07 am	Unit 106	<0.4
3015287	3028776	02/29/2016 9:47 am	03/03/2016 7:07 am	Unit 106	<0.4
3015288	3028900	02/29/2016 9:47 am	03/03/2016 7:07 am	Unit 106	<0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/07/2016 Date Logged: 03/07/2016 Date Analyzed: 03/08/2016 Date Reported: 03/08/2016

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.

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: Bethesda Elementary School
 Address: 7600 Arlington Rd.
 Address:
 City / Town: Bethesda
 State/Province Postal Code: MD 20814
 Test Country: Montgomery County
 Project Number: 12146341

Contact Information:

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

Lab Use Only	Device Number	Building Number	Unit Number	Floor	Temp	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
	3028775		106		70°		02/29/2016	9:47 AM	03/03/2016	7:07 AM	
	3028776		106		↓		02/29/2016	↓	03/03/2016	7:07 AM	
	3028900		106		↓		02/29/2016	↓	03/03/2016	7:07 AM	
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		
							02/29/2016		03/03/2016		

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

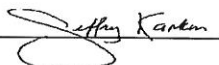
MCPS Radon Phase 10 Office Blank

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3015360	3028828	02/29/2016 9:30 am 03/03/2016 9:30 am	Office Blank	<0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/07/2016 Date Logged: 03/07/2016 Date Analyzed: 03/08/2016 Date Reported: 03/08/2016

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.

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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.mouldsdale@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:

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.

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

RECEIVED JAN 27 2016
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
	LOF
	LOF
	LOF
	LOF

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 _____ # _____

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 173618

NOMINAL Conditions: Radon Conc 25.2 pCi/L Rel. Hum 49.1 % Temp. 72.0 F

Date Start: 1/23/16 Date Stop: 1/25/16 Date Start: _____ Date Stop: _____

Time Start: 0821 Time Stop: 0821 Time Start: _____ Time Stop: _____

Device No.'s: (6) Char. Cons. Device No.'s: _____

3028985 thru 3028990

E2 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

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)
3010551	3028985	01/23/2016 8:20 am	01/25/2016 8:20 am	1 First Floor	24.2
3010552	3028986	01/23/2016 8:20 am	01/25/2016 8:20 am	2 First Floor	25.7
3010553	3028987	01/23/2016 8:20 am	01/25/2016 8:20 am	3 First Floor	23.8
3010554	3028988	01/23/2016 8:20 am	01/25/2016 8:20 am	4 First Floor	23.3
3010555	3028989	01/23/2016 8:20 am	01/25/2016 8:20 am	5 First Floor	24.0
3010556	3028990	01/23/2016 8:20 am	01/25/2016 8:20 am	6 First Floor	24.4

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.

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

Disclaimer:

Carolyn D. Koke, President, AccuStar Labs

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

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.

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

RECEIVED JAN 27 2016

Test Site Info

Name of Building/Project or Owner MCPS

Site Address: 750 Hungerford Dr

City: Rockville MD

State MD Zip 20850

County Montgomery

Projects Contact Name: James Moultsdale Phone: 410-891-1842 Email: James.moultsdale@kci.com

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

Multi-Page Report Y-N

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	LAB USE ONLY	
							Wgt. Gain	pCi/L
3028985	1 3010551	1	1/23/16	08:20	1/25/16	08:20		N/A
3028986	2 3010552	1						
3028987	3 3010553	1						
3028988	4 3010554	1						
3028989	5 3010555	1						
3028990	6 3010556	1						

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

Owner waives confidentiality
 by signing here _____ Date _____

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 Yes No

Rainy Yes No

Send Results To:

Company Name: KCI technologies Inc
 Address: 936 Ridgebrook Rd
 City: Sparks MD 21152
 Phone: 410-891-1842 State: 7in
 EMAIL Results to: James.moultsdale@kci.com Fax: _____

1/27/2016

Attention: James Moultsdale
 KCI Technologies, Inc.
 3010551 **3028985** ACPC275B EXP12/31/2018

Mailing: PO Box 990 Jonestown
 Shipping: 929 Mt Zion Road, Le
 800-523-4964 fax 717-2
 NEHA 10511AL NRSB ARL 0007

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



MCPS RADON TESTING

Executive Summary: Bethesda Elementary School

Date of Test Report:	2/03/2016 (Rev.1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	38
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.1

Project Status:

Initial testing completed; compromised samples need re-test.



February 3, 2016 (Rev.1)

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

Re: **Radon Testing Services**
KCI Job # 12146341.24

Location: Bethesda Elementary School
7600 Arlington Road
Bethesda, MD 20814

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 Bethesda Elementary School, located at 7600 Arlington Road in Bethesda, Maryland 20814 (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 11, 2016 and deployed fifty (50) 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 14, 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,



H. Allen Bennett
Certified Industrial Hygienist
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		
Bethesda Elementary School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7716524	101	< 0.3
7716523	101	0.6
7716522	103	< 0.3
7716521	105	< 0.3
7716510	111	< 0.3
7716508	112	< 0.3
7716509	113	< 0.3
7716513	114	< 0.3
7716514	118	< 0.3
7716518	125	< 0.3
7716517	125	< 0.3
7716526	130	0.9
7716527	133	0.6
7716535	135	< 0.3
7716534	136	< 0.3
7716537	137	< 0.3
7716543	141	0.6
7716544	143	< 0.3
7716545	145	< 0.3
7716541	144	< 0.3
7716542	146	< 0.3
7716547	148	0.5
7716546	148	0.7
7716528	151	< 0.3
7716529	153	< 0.3
7716530	159	< 0.3
7716533	161	< 0.3
7716532	162	< 0.3
7716531	163	< 0.3
7716551	201	< 0.3
7716548	228	< 0.3
7716550	230	< 0.3
7716506	100 B	< 0.3
7716501	100 MAIN OFFICE	< 0.3
7716504	100A PRINCIPALS	< 0.3
7716502	102 HEALTH RM	< 0.3
7716507	* 106 WORK RM (tampered)	< 0.3
7716519	125A	< 0.3
7716515	CAFE	< 0.3
7716516	CAFE	< 0.3
7716503	HEALTH RM OFFICE	< 0.3
7716520	STO 110	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Bethesda Elementary School		
Test Period: 01/11/16-01/14/16		
Kit Number	QC Type	Result
7716512	D (111)	< 0.3
7716525	D (130)	1.1
7716536	D (135)	< 0.3
7716552	D (201)	< 0.3
7716505	FB (100 A)	< 0.3
7716511	FB (111)	< 0.3
7716549	FB (228)	< 0.3
7716539	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 1, 2016 **LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**BETHESDA ELEMENTARY SCHOOL
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7716539	0	2016-01-11 @ 1:00 pm	2016-01-14 @ 3:00 pm	< 0.3	2016-01-19
7716505	100 A	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716506	100 B	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716501	100 MAIN OFFICE	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716504	100A PRINCIPALS	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716523	101	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	0.6 ± 0.4	2016-01-19
7716524	101	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716502	102 HEALTH RM	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716522	103	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716521	105	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716507	106 WORK RM	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716510	111	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716511	111	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716512	111	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716508	112	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716509	113	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716513	114	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716514	118	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716517	125	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716518	125	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716519	125A	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716525	130	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	1.1 ± 0.4	2016-01-19
7716526	130	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	0.9 ± 0.4	2016-01-19
7716527	133	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	0.6 ± 0.4	2016-01-19
7716535	135	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716536	135	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716534	136	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716537	137	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716543	141	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	0.6 ± 0.4	2016-01-19
7716544	143	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716545	145	2016-01-11 @ 10:00 am	2016-01-14 @ 11:00 am	< 0.3	2016-01-19
7716541	144	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716542	146	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716546	148	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	0.7 ± 0.4	2016-01-19
7716547	148	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	0.5 ± 0.4	2016-01-19
7716528	151	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716529	153	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19

February 1, 2016
**LABORATORY ANALYSIS
REPORT ****

Radon test result report for:
**BETHESDA ELEMENTARY SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7716530	159	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716533	161	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716532	162	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716531	163	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716551	201	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716552	201	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716548	228	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716549	228	2016-01-11 @ 10:00 am	2016-01-14 @ 11:00 am	< 0.3	2016-01-19
7716550	230	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19
7716515	CAFE	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716516	CAFE	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716503	HEALTH RM OFFICE	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-19
7716520	STO 110	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-19

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

December
23,
2015

**LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:
MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 173224

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

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

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

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

7706211, 7706366, _____

7706380, 7706381 _____

F3 Left

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

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

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

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

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

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

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



Chain of Custody

Project Name: MCPS Radon Phase V

Name of Schools:

- | | | |
|-------------------------|---------------------------|-------------------------|
| 1. Arcola ES | 11. Clopper Mill ES | 21. Parkland Magnet MS |
| 2. Argyle ES | 12. College Gardens ES | 22. Rachel Carson ES |
| 3. Bells Mill ES | 13. Eastern MS | 23. Roberto Clemente MS |
| 4. Bethesda ES | 14. Fallsmead ES | 24. Rock Creek ES |
| 5. Brookhaven ES | 15. Fields Road ES | 25. Rockview ES |
| 6. Burning Tree ES | 16. Flower Hill ES | 26. Rockville HS |
| 7. Capt. James Daly ES | 17. Flower Valley ES | 27. Rocky Hill MS |
| 8. Carderock Springs ES | 18. Fox Chapel ES | 28. Seneca Valley HS |
| 9. Cashell ES | 19. Glen Haven ES | 29. Westover ES |
| 10. Clearspring ES | 20. James Hubert Blake HS | 30. William Farquar MS |

	Date	Initials
Radon Test Kits Deployed	1/11/16	JM
Radon Test Kits Sampled	1/14/16	JM
Radon Test Kits Shipped to Lab*	1/15/16	JM
Radon Test Kits Received by Lab*	1/18/16	JM

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