



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Bells Mill Elementary School
Date of Report	2/3/2020
Round of Testing	Initial Follow-up Post Remediation 2 year testing 5 year testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested	46
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.6 pCi/L

Project Status

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



2/3/2020

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

Re: Radon Testing Services

KCI Job #12146341126

Location: Bells Mill Elementary School

8225 Bells Mill Road
Potomac, Maryland 20854

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 Bells Mill Elementary School, located at 8225 Bells Mill Road in Potomac, Maryland 20854 (subject site).

SCOPE OF SERVICES

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Proficiency Program (NRPP) Radon Measurement Provider (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from <https://www.montgomeryschoolsmd.org/departments/facilities/maintenance/default.aspx?id=458858> or www.epa.gov/radon.

KCI visited the site on 12/16/2019 and deployed fifty-nine (59) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on 12/19/2019 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a National Radon Safety Board (NRSB) radon measurement provider and is a certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- 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 lower-20s and high temperatures were in the lower-40s. Maximum sustained winds ranged from 12-26 miles per hour. Average humidity was around 67%. 0.54 inches of precipitation (rain and snow) was recorded during the testing period.

RESULTS

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Mr. Tyler P. McCleaf
Radon Measurement Provider
111004 RT

KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Bells Mill Elementary School		
Test Period: 12/16/2019-12/19/2019		
Kit Number	Room / Area	Result
9340701	104	< 0.3
9340702	103	< 0.3
9340703	106	0.6
9340704	106	< 0.3
9340705	112	< 0.3
9340706	110A	< 0.3
9340707	GYM	1.6
9340708	GYM	1.5
9340709	114	0.6
9340710	120	< 0.3
9340711	124	0.6
9340712	118	0.8
9340713	132	0.6
9340714	128	0.7
9340715	121	0.6
9340716	121	0.8
9340717	125	0.6
9340718	125	0.7
9340719	129	< 0.3
9340720	149	0.6
9340721	134	< 0.3
9340722	134	< 0.3
9340723	135	< 0.3
9340724	105	1
9340725	109	0.6
9340726	136	0.5
9340727	148	0.6
9340728	153	0.6
9340729	159	1.1
9340730	154	< 0.3
9340731	150	0.8
9340732	147A	0.7
9340733	147A	0.7
9340734	155	< 0.3
9340735	163	< 0.3
9340736	165	< 0.3
9340737	164	< 0.3
9340738	164	< 0.3
9340739	164	0.5
9340740	160 APR	0.7
9340741	160 APR	0.9
9340742	APR STAGE	1.3
9340743	160A1 KITCHEN OFFICE	0.7
9340744	214	0.6
9340745	214	< 0.3
9340746	209	< 0.3
9340747	200 IMC	0.9
9340748	200 IMC	< 0.3
9340749	229	< 0.3
9340891	102B	< 0.3

9340892	102A	< 0.3
9340893	102	< 0.3
9340894	102	0.8
9340895	CONFERENCE	< 0.3
9340896	108 LOUNGE	< 0.3
9340897	PRINCIPAL	1.2
9340898	CONFERENCE	< 0.3
9340899	ASSISTANT PRINCIPAL	0.6
9340900	MAIN OFFICE	< 0.3
9341378	OFFICE BLANK	1

Table 2- Radon Testing Results			
Bells Mill Elementary School			
Test Period: 12/16/2019-12/19/2019			
Kit Number	QC Type	Room / Area	Result
9340898	D	CONFERENCE	<0.3
9340893	FB	102	<0.3
9340704	D	106	<0.3
9340715	D	121	0.6
9340717	FB	125	0.6
9340721	D	134	<0.3
9340732	D	147A	0.7
9340737	FB	164	<0.3
9340745	D	214	<0.3
9341377	TRANSIT BLANK	NA	0.5
9341379	TRANSIT BLANK	NA	< 0.3
9341380	TRANSIT BLANK	NA	< 0.3
9341398	TRANSIT BLANK	NA	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
BELLS MILL ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340893	102	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340894	102	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	0.8 ± 0.4	2019-12-23
9340892	102A	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340891	102B	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340702	103	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340701	104	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340724	105	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	1.0 ± 0.4	2019-12-23
9340703	106	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340704	106	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340896	108 LOUNGE	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340725	109	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.3	2019-12-23
9340706	110A	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340705	112	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340709	114	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340712	118	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.8 ± 0.4	2019-12-23
9340710	120	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340715	121	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340716	121	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.8 ± 0.3	2019-12-23
9340711	124	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.3	2019-12-23
9340718	125	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.7 ± 0.3	2019-12-23
9340717	125	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340714	128	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.7 ± 0.4	2019-12-23
9340719	129	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340713	132	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340721	134	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340722	134	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340723	135	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340726	136	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.5 ± 0.4	2019-12-23
9340732	147A	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	0.7 ± 0.4	2019-12-23
9340733	147A	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	0.7 ± 0.4	2019-12-23
9340727	148	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340720	149	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340731	150	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.8 ± 0.4	2019-12-23
9340728	153	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340730	154	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340734	155	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340729	159	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	1.1 ± 0.4	2019-12-23

Radon test result report for:
BELLS MILL ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340740	160 APR	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	0.7 ± 0.4	2019-12-23
9340741	160 APR	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	0.9 ± 0.4	2019-12-23
9340743	160A1 KITCHEN OFFICE	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	0.7 ± 0.4	2019-12-23
9340735	163	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340737	164	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340738	164	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340739	164	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	0.5 ± 0.3	2019-12-23
9340736	165	2019-12-16 @ 1:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340747	200 IMC	2019-12-16 @ 2:00 pm	2019-12-19 @ 11:00 am	0.9 ± 0.4	2019-12-23
9340748	200 IMC	2019-12-16 @ 2:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340746	209	2019-12-16 @ 2:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340745	214	2019-12-16 @ 2:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340744	214	2019-12-16 @ 2:00 pm	2019-12-19 @ 11:00 am	0.6 ± 0.4	2019-12-23
9340749	229	2019-12-16 @ 2:00 pm	2019-12-19 @ 11:00 am	< 0.3	2019-12-23
9340742	APR STAGE	2019-12-16 @ 1:00 pm	2019-12-19 @ 10:00 am	1.3 ± 0.4	2019-12-23
9340899	ASSISTANT PRINCIPAL	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	0.6 ± 0.4	2019-12-23
9340898	CONFERENCE	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340895	CONFERENCE	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340708	GYM	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	1.5 ± 0.4	2019-12-23
9340707	GYM	2019-12-16 @ 12:00 pm	2019-12-19 @ 11:00 am	1.6 ± 0.4	2019-12-23
9340900	MAIN OFFICE	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	< 0.3	2019-12-23
9340897	PRINCIPAL	2019-12-16 @ 12:00 pm	2019-12-19 @ 10:00 am	1.2 ± 0.4	2019-12-23

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 193598

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

Temp °F 70.1
RH % 50.1
Avg pCi/L 25.4

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

Time Start: 0815 Time Stop: 0815

(Group 1)
Device No.'s: (20) Char. Bags-

9340001 thru 9340020

55

Temp °F 70.1
RH % 50.1
Avg pCi/L 25.4

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

Time Start: 0829 Time Stop: 0820

(Group 2)
Device No.'s: (20) Char. Bags-

9340021 thru 9340040

54

Temp °F 70.1
RH % 50.1
Avg pCi/L 25.4

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

Time Start: 0825 Time Stop: 0825

(Group 3)
Device No.'s: (20) Char. Bags-

9340041 thru 9340060

53

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

Radon test result report for:

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

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

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

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

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

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

January 3, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

S

N/A

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

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 2

Name of Schools:

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

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

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

RADON SCREENING SURVEY – FOLLOW-UP BELLS MILL ELEMENTARY SCHOOL

8225 Bells Mill Road, Potomac, Maryland 20854

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)
150	1.7 Open Window	<0.4	1.1



MCPS RADON TESTING

Executive Summary: Bells Mill 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: Bells Mill Elementary School
8225 Bells Mill Road
Potomac, MD 20854

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 Bells Mill Elementary School, located at 8225 Bells Mill Road in Potomac, Maryland 20854 (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		
Bells Mill Elementary School		
Test Period: 02/29/16-03/03/16		
Kit Number	Room / Area	Result
3028951	150	<0.4

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Bells Mill Elementary School		
Test Period: 02/29/16-03/03/16		
Kit Number	QC Type	Result
3028888	D (150)	<0.4
3028984	FB (150)	<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

Bells Mill Elem. Sch.
8225 Bells Mills Road
Potomac MD 20854

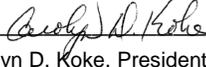
Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3015298	3028951	02/29/2016 8:42 am 03/03/2016 8:02 am	Unit 150 Classroom 150 First Floor	<0.4
3015299	3028888	02/29/2016 8:42 am 03/03/2016 8:02 am	Unit 1050 Classroom 150 First Floor	<0.4
3015300	3028984	02/29/2016 8:42 am 03/03/2016 8:02 am	Unit 150 Classroom 150 First Floor	<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: Sparks
 City / Town: Sparks
 State/Province Postal Code: MD 21152
 Report Country: Baltimore County
 Email Address: tehsin@kci.com

Site Tested:

Site Name: Bells Mill Elem. Sch.
 Address: 8225 Bells Mills Road
 Address: P Potomac,
 City / Town: Potomac,
 State/Province Postal Code: MD 20854
 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	Start Time	Stop Date	Stop Time	Lab Use Only
	3028951	PM 150	150	1	Temp 74° / Classroom 150	02/29/2016	08:42 AM	03/03/2016	08:02 AM	
	3028888	150	150	1	74 / Classroom 150	02/29/2016	08:42 AM	03/03/2016	08:02 AM	
	3028984	150	150	1	74 / Classroom 150	02/29/2016	08:42 AM	03/03/2016	08:02 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		

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

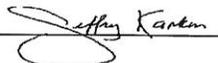
MCPS Radon Phase 10 Office Blank

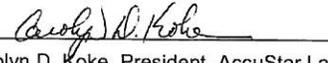
Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3015360	3028828	02/29/2016 9:30 am 03/03/2016 9:30 am	Office Blank	<0.4

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 County: _____
 Site Address: Transit State: _____ Zip: _____
 City: _____ Email: _____

Projects Contact Name: Don Coale Phone: _____

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	↓	↓	↓

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

LAB USE ONLY	
Wgt. Gain	pCi/L
	<0.4
	<0.4
	<0.4
	<0.4

Multi-Page Report Y-N

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: _____ Date: 1/27/16
 Company Name: Kci Tech
 Address: 936 Ridgebrook
 City: Sparks State: MD Zip: 21152
 Phone: 410-599-3826
 EMAIL Results to: James.Mouldale@kci.com
 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

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 State MD Zip 20850 County Montgomery
 Site Address: 850 Hungerford Dr Phone: 410-891-1842 Email: James.Moulsdale@kci.com
 City: Rockville MD

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		0.1A
3028986	2 3010552	1						
3028987	3 3010553	1						
3028988	4 3010554	1						
3028989	5 3010555	1						
3028990	6 3010556	1						

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 James Moulsdale #
 Canisters retrieved by James Moulsdale #
 Owner waives confidentiality by signing here _____ Date _____

Send Results To:
 Company Name: KCI technologies Inc
 Address: 936 Ridgebrook Rd
 City: Sparks MD 21152 State: 7in
 Phone: 410-891-1842 Fax:
 EMAIL Results to: James.Moulsdale@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 YN Rainy YN

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



MCPS RADON TESTING

Executive Summary: Bells Mill Elementary School

Date of Test Report:	2/03/2016 (Rev.1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	43
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.3

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: Bells Mill Elementary School
8225 Bells Mill Road
Potomac, MD 20854

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 Bells Mill Elementary School, located at 8225 Bells Mill Road in Potomac, Maryland 20854 (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-five (55) 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		
Bells Mill Elementary School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7722056	100	0.6
7722057	102	< 0.3
7722049	103	0.9
7722051	104	< 0.3
7722035	105	1.7
7722028	106	< 0.3
7722033	108	< 0.3
7722032	109	0.6
7722047	110	1.7
7722046	110	1
7722042	112	1.2
7722043	114	< 0.3
7722038	120	1.3
7722036	121	1.3
7722039	124	1.1
7722040	125	1
7722044	128	< 0.3
7722045	129	0.9
7722048	132	1.2
7722034	134	0.7
7722029	135	1.2
7722030	136	< 0.3
7722018	143	1.1
7722021	148	1.4
7722026	149	1
7722019	153	1.5
7722025	154	1.6
7722022	155	2.2
7722024	159	2.3
7722017	160	< 0.3
7722014	160	0.8
7722020	163	0.6
7722012	164	1.4
7722010	165	1.2
7722007	200	0.8
7722008	200	0.7
7722009	219	< 0.3
7722011	235	0.9
7722060	100A	< 0.3
7722076	100B	< 0.3
7722058	100C	< 0.3
7722037	110A	1
7722027	147A	1.2
7722023	* 150 (Open Window)	1.7
7722013	160A	0.9
7722016	160A1	0.6

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Bells Mill Elementary School		
Test Period: 01/11/16-01/14/16		
Kit Number	QC Type	Result
7722053	D (102)	< 0.3
7722050	D (110)	1.2
7722041	D (125)	0.8
7722015	D (153)	1.3
7722005	D (200)	0.8
7722052	FB (102)	< 0.3
7722031	FB (105)	< 0.3
7722006	FB (200)	< 0.3
7721796	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:
**BELLS MILL ELEMENTARY SCHOOL
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721796	0	2016-01-11 @ 4:00 pm	2016-01-14 @ 1:00 pm	< 0.3	2016-01-18
7722056	100	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.6 ± 0.4	2016-01-20
7722060	100A	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722076	100B	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7722058	100C	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722052	102	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722053	102	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722057	102	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722049	103	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.9 ± 0.3	2016-01-18
7722051	104	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722035	105	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.7 ± 0.5	2016-01-20
7722031	105	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722028	106	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722033	108	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722032	109	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.6 ± 0.3	2016-01-18
7722046	110	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.0 ± 0.4	2016-01-20
7722047	110	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.7 ± 0.5	2016-01-20
7722050	110	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.2 ± 0.4	2016-01-20
7722037	110A	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.0 ± 0.4	2016-01-20
7722042	112	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.2 ± 0.3	2016-01-18
7722043	114	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722038	120	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.3 ± 0.4	2016-01-20
7722036	121	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.3 ± 0.5	2016-01-20
7722039	124	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.1 ± 0.4	2016-01-20
7722040	125	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.0 ± 0.4	2016-01-20
7722041	125	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.8 ± 0.4	2016-01-20
7722044	128	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-20
7722045	129	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.9 ± 0.4	2016-01-20
7722048	132	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.2 ± 0.4	2016-01-20
7722034	134	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.7 ± 0.3	2016-01-18
7722029	135	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.2 ± 0.4	2016-01-20
7722030	136	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7722018	143	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.1 ± 0.4	2016-01-20
7722027	147A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.2 ± 0.3	2016-01-18
7722021	148	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.4 ± 0.3	2016-01-18
7722026	149	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.0 ± 0.3	2016-01-18
7722023	150	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.7 ± 0.4	2016-01-18

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

Radon test result report for:
**BELLS MILL ELEMENTARY SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722015	153	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.3 ± 0.3	2016-01-18
7722019	153	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.5 ± 0.3	2016-01-18
7722025	154	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.6 ± 0.4	2016-01-18
7722022	155	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	2.2 ± 0.4	2016-01-18
7722024	159	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	2.3 ± 0.4	2016-01-18
7722014	160	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.8 ± 0.3	2016-01-18
7722017	160	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7722013	160A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.9 ± 0.4	2016-01-20
7722016	160A1	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.6 ± 0.4	2016-01-20
7722020	163	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.6 ± 0.4	2016-01-20
7722012	164	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.4 ± 0.3	2016-01-18
7722010	165	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.2 ± 0.4	2016-01-20
7722005	200	2016-01-11 @ 12:00 pm	2016-01-14 @ 11:00 am	0.8 ± 0.3	2016-01-18
7722006	200	2016-01-11 @ 12:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7722007	200	2016-01-11 @ 12:00 pm	2016-01-14 @ 11:00 am	0.8 ± 0.3	2016-01-18
7722008	200	2016-01-11 @ 12:00 pm	2016-01-14 @ 11:00 am	0.7 ± 0.3	2016-01-18
7722009	219	2016-01-11 @ 12:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-20
7722011	235	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.9 ± 0.4	2016-01-20

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