School / Facility Radon Testing Report Form

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

- *Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;*
- *Summary Results – list of rooms by test result ≥2.0-pCi/L; ≥2.7-pCi/L; ≥4.0-pCi/L; and ≥8.0-pCi/L;*
- *QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;*
- *Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.*

Attachment 2 – Laboratory Report(s)
Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

School Year: **23-24**

Facility:	Fairland Elementary School
Address:	14315 Fairdale Road
	Silver Spring, MD 20905

Reason for Testing:	☒ Scheduled Re-Testing (2 or 5-year schedule) ☐ Clearance Testing (Post-Mitigation) ☐ System(s) Performance Testing (Post-Mitigation) ☐ New Construction/Facility
Facility Current Radon Status:	☐ Active Mitigation (2-year regular schedule) ☒ No Active Mitigation (5-year regular schedule) ☐ Not Previously Tested
Round of Testing:	☐ Initial Testing **-or-** ☒ Follow-up Testing
Testing Status:	☒ No Further Testing Needed **-or-** ☐ Follow-Up Testing Required

Conclusion (When Testing Status is - No Further Testing Needed)

Mitigation -	**Facility Radon Status:**
☐ Not Required or Considered ☐ Required (>8.0-pCi/L) ☒ Required (≥4.0-pCi/L) Room: Principal's Office ☐ Consider (≥2.0 & <4.0-pCi/L)	☐ No Change in Status ☒ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule)

MCPS DEM SUSTAINABILITY & COMPLIANCE

School / Facility Radon Testing Report Form

Detector and Deployment

Detector/Device Type:	☒ Passive ☐ Continuous	☒ Charcoal Absorption (CAD) ☐ Alpha Track (ATD) ☐ Other ☐ Electret ion Chamber (EIC) ☐ Electronic Integration (EID)
	Other–Specify here:	
Detector/Device Name:	Air Chek – Radon Test Kits	
Manufacturer:	Radon Lab	

Person(s) Deploying or Retrieving Test Devices and certification number	Organization/Company
Tyler McCleaf	KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -	
Tyler McCleaf, CSP – Cert. #111004-RMP	KCI Technologies, Inc.

Testing

☒ Short-Term ☐ Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	2/20/2024 2/23/2024
Does the test period include weekends, school breaks or holidays?				☐ Yes ☒ No
*If "**Yes**" please explain/detail in the space below:*				
Was HVAC operating under occupied conditions?				☒ Yes ☐ No
*If "**No**" please explain/detail in the space below:*				

Testing (continued)

	Detectors Deployed		
	Ground-Contact	**Upper-Level(s)**	**Total**
Test Locations[1]	3	0	3
Duplicates[2]	1	0	1
Field Blanks[3]	1	0	1
		Grand Total	5

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

Quality Assurance / Quality Control (QA/QC)

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

Spike Samples[1]	6	Trip Blank(s)[2]	1	Office Blank(s)[3,4]	1

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

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

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

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

Summary of Test Results[1] and Determination of Valid Measurements[2]

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	3	0	3
Number of locations ≥8.0-pCi/L:	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	1	0	1
Number of locations ≥2.7 and ≤4-pCi/L:	0	0	0
Number of locations ≥2.0 and ≤4-pCi/L:	0	0	0
Number of missing required test locations[3]:	0	0	0
Percentage of missing test locations for the facility[4,5]:	0	0	0

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

School / Facility Radon Testing Report Form

Summary of Test Results[1] and Determination of Valid Measurements[2] (continued)

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

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

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

Follow-Up Testing (if required)

Required if –

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

Follow-up Testing:

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

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

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

Attachment 1:

Summary Data Tables

Table 1- Radon Retesting Results		
Fairland Elementary School		
Test Period: 02/20/2024 - 02/23/2024		
Kit Number	Room / Area	Result
11477781	16B	<0.3
11477997	16B	<0.3
11477831	Café	1.9
11477835	Café	1.3
11477823	Principal	0.7
11478173	Principal	4.9

Table 3 - QC Radon Retesting Results			
Fairland Elementary School			
Test Period: 02/20/2024 - 02/23/2024			
Kit Number	**QC Type**	**Room / Area**	**Result**
11477823	D	Principal	0.7
11477997	FB	16B	<0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Fairland Elementary School							
Test Period: 02/20/2024 - 02/23/2024							
≥2.0 and <2.7 pCi/L		≥2.7 and <4.0 pCi/L		≥4.0 and <8.0 pCi/l		≥8.0 pCi/L	
Room / Area	Result	Room / Area	Result	Room / Area	Result	Room / Area	Result
N/A	N/A	N/A	N/A	PRINCIPAL	4.9	N/A	N/A

Table 4 - Summary of Invalid Measurement Locations		
Fairland Elementary School		
Test Period: 02/20/24 - 02/23/2024		
Kit Number	**Room/Area**	**Result**
N/A	N/A	N/A

Attachment 2:

Laboratory Reports

February 28, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
FAIRLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477781	16B	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	< 0.3	2024-02-27
11477997	16B	2024-02-20 @ 10:00 am	2024-02-23 @ 9:00 am	< 0.3	2024-02-27
11477831	CAFE	2024-02-20 @ 9:00 am	2024-02-23 @ 9:00 am	1.9 ± 0.4	2024-02-27
11477835	CAFE	2024-02-20 @ 9:00 am	2024-02-23 @ 9:00 am	1.3 ± 0.3	2024-02-27
11477823	PRINCIPAL	2024-02-20 @ 9:00 am	2024-02-23 @ 8:00 am	0.7 ± 0.3	2024-02-27
11478173	PRINCIPAL	2024-02-20 @ 9:00 am	2024-02-23 @ 9:00 am	4.9 ± 0.4	2024-02-27

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

February 27, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
KCI
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477832	OB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27
11482793	OB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27
11477841	TB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27
11482795	TB	2024-02-23 @ 8:00 am	2024-02-26 @ 11:00 am	< 0.3	2024-02-27

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

January 29, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
STORAGE
KCI

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213819

NOMINAL Conditions: Radon Conc 50.0 pCi/L Rel. Hum 28.9 % Temp. 69.1 F

Date Start: 2/23/24 Date Stop: 2/26/24

Time Start: 0812 Time Stop: 0812

Device No.'s: (6) CHAR BAGS

11478400, 11477842, 11477845,

11477852, 11477996, 11477999

E3 Left

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

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

March 1, 2024

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FEB SK
MAIN

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

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing February 20th – February 23rd, 2024

Name of Schools:

1. Cabin Branch ES
2. Clarksburg HS
3. Fairland ES
4. Jackson Road ES
5. JFK HS
6. John T. Baker MS
7. White Oak MS

	Date	Initials
Radon Test Kits Deployed	02/20/2024	
Radon Test Kits Collected	02/23/2024	
Radon Test Kits Shipped to Lab*	02/23/2024	
Radon Test Kits Received by Lab*	02/27/2024	

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

Attachment 3:

Sampling Location Map

School / Facility Radon Testing Report Form

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

- *Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;*
- *Summary Results – list of rooms by test result ≥2.0-pCi/L; ≥2.7-pCi/L; ≥4.0-pCi/L; and ≥8.0-pCi/L;*
- *QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;*
- *Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.*

Attachment 2 – Laboratory Report(s)
Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

School Year: **23-24**

Facility:	Fairland Elementary School
Address:	14315 Fairdale Road
	Silver Spring, MD 20905

Reason for Testing:	☒ Scheduled Re-Testing (2 or 5-year schedule) ☐ Clearance Testing (Post-Mitigation) ☐ System(s) Performance Testing (Post-Mitigation) ☐ New Construction/Facility
Facility Current Radon Status:	☐ Active Mitigation (2-year regular schedule) ☒ No Active Mitigation (5-year regular schedule) ☐ Not Previously Tested
Round of Testing:	☒ Initial Testing **-or-** ☐ Follow-up Testing
Testing Status:	☐ No Further Testing Needed **-or-** ☒ Follow-Up Testing Required

Conclusion (When Testing Status is - No Further Testing Needed)

Mitigation -	**Facility Radon Status:**
☐ Not Required or Considered ☐ Required (>8.0-pCi/L) ☐ Required (≥4.0-pCi/L) ☐ Consider (≥2.0 & <4.0-pCi/L)	☐ No Change in Status ☐ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule)

Detector and Deployment

MCPS DEM SUSTAINABILITY & COMPLIANCE

School / Facility Radon Testing Report Form

Detector/Device Type:	☒ Passive ☐ Continuous	☒ Charcoal Absorption (CAD) ☐ Alpha Track (ATD) ☐ Other ☐ Electret ion Chamber (EIC) ☐ Electronic Integration (EID)
	Other–Specify here:	
Detector/Device Name:	Air Chek – Radon Test Kits	
Manufacturer:	Radon Lab	

Person(s) Deploying or Retrieving Test Devices and certification number	Organization/Company
Brittany Maas	KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -	
Tyler McCleaf, CSP – Cert. #111004-RMP	KCI Technologies, Inc.

Testing

☒ Short-Term ☐ Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	01/30/2024
				02/02/2024
Does the test period include weekends, school breaks or holidays?				☐ Yes ☒ No
*If "**Yes**" please explain/detail in the space below:*				
Was HVAC operating under occupied conditions?				☒ Yes ☐ No
*If "**No**" please explain/detail in the space below:*				

Testing (continued)

	Detectors Deployed		
	Ground-Contact	**Upper-Level(s)**	**Total**
Test Locations[1]	57	3	60
Duplicates[2]	5	1	6
Field Blanks[3]	3	0	3
		Grand Total	69

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

Quality Assurance / Quality Control (QA/QC)

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

Spike Samples[1]	6	Trip Blank(s)[2]	1	Office Blank(s)[3,4]	1

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

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

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

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

Summary of Test Results[1] and Determination of Valid Measurements[2]

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	57	3	60
Number of locations ≥8.0-pCi/L:	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	1	0	1
Number of locations ≥2.7 and ≤4-pCi/L:	1	0	1
Number of locations ≥2.0 and ≤4-pCi/L:	2	0	2
Number of missing required test locations[3]:	2	0	2
Percentage of missing test locations for the facility[4,5]:	3.5%	0	3.5%

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

Summary of Test Results[1] and Determination of Valid Measurements[2] (continued)

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

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

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

Follow-Up Testing (if required)

Required if –

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

Follow-up Testing:

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

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

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

Attachment 1:

Summary Data Tables

Table 1- Radon Testing Results		
Fairland Elementary School		
Test Period: 01/30/2024 - 02/02/2024		
Kit Number	Room / Area	Result
11469210	1	1.6
11469220	2	1.9
11469211	3	0.9
11469212	3	1.3
11469214	4	0.6
11469213	5	0.7
11469225	6	1.8
11469218	7	0.8
11469227	8	< 0.3
11469228	10	0.5
11469219	11	1.4
11469209	12	1.1
11469224	13	1.2
11469246	14	< 0.3
11469230	15	0.9
11469229	17	< 0.3
11469237	17	< 0.3
11469257	18	< 0.3
11469256	19	0.8
11469255	20	< 0.3
11469265	21	2.8
11469266	22	0.5
11469238	30	< 0.3
11469244	30	< 0.3
11469247	101	0.9
11469232	102	1.0
11469231	103	0.7
11469236	104	0.9
11469239	105	0.5
11469240	105	0.7
11469241	106	0.6
11469234	107	0.7
11469243	108	0.6
11469242	109	0.7
11469235	110	0.7
11469233	111	0.7
11469248	203	0.5
11469249	211	0.7
11469250	211	0.7
11469259	14 OFFICE	< 0.3
11469251	15A	0.9
11469245	16A	< 0.3
11469203	16B	N/A

Table 1- Radon Testing Results		
Fairland Elementary School		
Test Period: 01/30/2024 - 02/02/2024		
Kit Number	Room / Area	Result
11469258	17 OFFICE	< 0.3
11469253	20 PHONE ROOM	0.6
11469268	APR	0.5
11469275	APR	N/A
11469205	ASSISTANT PRINCIPAL	1.1
11469204	BUILDING SERVICES	< 0.3
11469264	BUILDING SERVICES OFFICE	2.0
11469217	CONFERENCE ROOM	1.8
11469263	GYM	1.7
11469273	GYM	0.9
11469207	HEALTH ROOM	1.5
11469208	HEALTH ROOM OFFICE	1.6
11469216	IMC	< 0.3
11469223	IMC	0.5
11469260	KITCHEN OFFICE	0.7
11469201	MAIN OFFICE	2.0
11469215	MEDIA OFFICE	< 0.3
11469221	MEDIA OFFICE	0.6
11469222	MEDIA OFFICE	0.5
11469271	PE OFFICE	2.2
11469272	PE OFFICE	1.8
11469274	PE OFFICE	< 0.3
11469202	PRINCIPAL	4.4
11469226	SPEECH THERAPY	0.7
11469267	STAGE	< 0.3
11469206	WORKROOM	1.2

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Fairland Elementary School							
Test Period: 01/30/2024 - 02/02/2024							
≥2.0 and <2.7 pCi/L		≥2.7 and <4.0 pCi/L		≥4.0 and <8.0 pCi/l		≥8.0 pCi/L	
Room / Area	**Result**	**Room / Area**	**Result**	**Room / Area**	**Result**	**Room / Area**	**Result**
BUILDING SERVICES OFFICE	2.0	21	2.8	PRINCIPAL	4.4	N/A	N/A
MAIN OFFICE	2.0						
PE OFFICE	2.2						

Table 3 - QC Radon Testing Results			
Fairland Elementary School			
Test Period: 01/30/2024 - 02/02/2024			
Kit Number	**QC Type**	**Room / Area**	**Result**
11469212	D	3	1.3
11469229	D	17	<0.3
11469244	FB	30	<0.3
11469239	D	105	0.5
11469249	D	211	0.7
11469222	D	Media office	0.5
11469215	FB	Media office	<0.3
11469271	D	PE Office	2.2
11469274	FB	PE Office	<0.3

Table 4 - Summary of Invalid Measurement Locations		
Fairland Elementary School		
Test Period: 01/30/24 - 02/02/24		
Kit Number	**Room/Area**	**Result**
11469275	APR	Missing
11469203	16B	Missing

Attachment 2:

Laboratory Reports

February 6, 2024

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FAIRLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11469210	1	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.6 ± 0.4	2024-02-06
11469228	10	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469247	101	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.9 ± 0.4	2024-02-06
11469232	102	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	1.0 ± 0.4	2024-02-06
11469231	103	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.3	2024-02-06
11469236	104	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.9 ± 0.4	2024-02-06
11469240	105	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.3	2024-02-06
11469239	105	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469241	106	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.6 ± 0.3	2024-02-06
11469234	107	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.3	2024-02-06
11469243	108	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.6 ± 0.4	2024-02-06
11469242	109	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.4	2024-02-06
11469219	11	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.4 ± 0.4	2024-02-06
11469235	110	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.4	2024-02-06
11469233	111	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.3	2024-02-06
11469209	12	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.1 ± 0.4	2024-02-06
11469224	13	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.2 ± 0.4	2024-02-06
11469246	14	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469259	14 OFFICE	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469230	15	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.9 ± 0.4	2024-02-06
11469251	15A	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.9 ± 0.4	2024-02-06
11469245	16A	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469229	17	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469237	17	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469258	17 OFFICE	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469257	18	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469256	19	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.8 ± 0.4	2024-02-06
11469220	2	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.9 ± 0.4	2024-02-06
11469255	20	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469253	20 PHONE ROOM	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.6 ± 0.3	2024-02-06
11469248	203	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469265	21	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	2.8 ± 0.4	2024-02-06
11469249	211	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.3	2024-02-06
11469250	211	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.4	2024-02-06
11469266	22	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469212	3	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.3 ± 0.4	2024-02-06
11469211	3	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.9 ± 0.3	2024-02-06

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

February 6, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
FAIRLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11469238	30	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469244	30	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469214	4	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.6 ± 0.3	2024-02-06
11469213	5	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.7 ± 0.4	2024-02-06
11469225	6	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.8 ± 0.4	2024-02-06
11469218	7	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.8 ± 0.3	2024-02-06
11469227	8	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469268	APR	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469205	ASSISTANT PRINCIPAL	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.1 ± 0.4	2024-02-06
11469204	BUILDING SERVICES	2024-01-30 @ 12:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469264	BUILDING SERVICES OFFICE	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	2.0 ± 0.4	2024-02-06
11469217	CONFERENCE ROOM	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.8 ± 0.4	2024-02-06
11469263	GYM	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	1.7 ± 0.4	2024-02-06
11469273	GYM	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	0.9 ± 0.4	2024-02-06
11469207	HEALTH ROOM	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.5 ± 0.4	2024-02-06
11469208	HEALTH ROOM OFFICE	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.6 ± 0.4	2024-02-06
11469223	IMC	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469216	IMC	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469260	KITCHEN OFFICE	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	0.7 ± 0.4	2024-02-06
11469201	MAIN OFFICE	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	2.0 ± 0.4	2024-02-06
11469221	MEDIA OFFICE	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.6 ± 0.3	2024-02-06
11469222	MEDIA OFFICE	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.5 ± 0.3	2024-02-06
11469215	MEDIA OFFICE	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469274	PE OFFICE	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469272	PE OFFICE	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	1.8 ± 0.4	2024-02-06
11469271	PE OFFICE	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	2.2 ± 0.4	2024-02-06
11469202	PRINCIPAL	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	4.4 ± 0.5	2024-02-06
11469226	SPEECH THERAPY	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	0.7 ± 0.3	2024-02-06
11469267	STAGE	2024-01-30 @ 1:00 pm	2024-02-02 @ 10:00 am	< 0.3	2024-02-06
11469206	WORKROOM	2024-01-30 @ 11:00 am	2024-02-02 @ 10:00 am	1.2 ± 0.4	2024-02-06

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

February 7, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE BLANK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633583	OB	2024-01-30 @ 11:00 am	2024-02-02 @ 11:00 am	< 0.3	2024-02-06

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

February 7, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRAVEL BLANK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633584	TB	2024-01-30 @ 11:00 am	2024-02-02 @ 11:00 am	< 0.3	2024-02-06

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

January 29, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
STORAGE
KCI

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213327

NOMINAL Conditions: Radon Conc 49.5 pCi/L Rel. Hum 24.7 % Temp. 69.8 F

Date Start: 1/19/24 Date Stop: 1/22/24	Date Start: _____ Date Stop: _____
Time Start: 0831 Time Stop: 0831	Time Start: _____ Time Stop: _____
Device No.'s: (6) CHAR BAGS -	Device No.'s: _____
11284003, 11284005, 11284006	_____
11284007, 11284008, 11284013	_____
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

January 29, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
BOWSER MORNER
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284003	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	47.0 ± 3.8	2024-01-29
11284005	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	43.4 ± 3.5	2024-01-29
11284006	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	42.1 ± 3.4	2024-01-29
11284007	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	46.4 ± 3.7	2024-01-29
11284008	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	46.2 ± 3.7	2024-01-29
11284013	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	45.6 ± 3.6	2024-01-29

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing January 30th – February 2nd 2024

Name of Schools:

1. Damascus HS
2. Fairland ES
3. Jackson Road ES
4. Laytonsville ES
5. William Tyler Page ES
6. Cloverly ES

	Date	Initials
Radon Test Kits Deployed	01/30/2024	
Radon Test Kits Collected	02/02/2024	
Radon Test Kits Shipped to Lab*	02/02/2024	
Radon Test Kits Received by Lab*	02/06/2024	

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

Attachment 3:

Sampling Location Map

KCI TECHNOLOGIES

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Fairland Elementary School
Date of Test Report	05/27/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	1
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.7 pCi/L

Project Status

Current Project Status at this time: Testing completed; no further action needed

KCI TECHNOLOGIES

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

May 27, 2022

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

Re: **Radon Testing Services**
KCI Job # 122108316

Location: Fairland Elementary School
14315 Fairdale Rd.
Silver Spring, MD 20905

Dear Mr. Croyle:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools (MCPS) pursuant to completing a "short-term" 3 day radon test for the Fairland Elementary School, located at 14315 Fairdale Rd. Silver Spring, MD 20905 (subject site).

Scope of Services:

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

KCI visited the site on March 29, 2022 and deployed four (4) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

KCI sampled the following locations during this follow-up test:

1. Rooms with missing test kits from the Radon 2022 testing period (i.e. test kit was deployed but not recovered),
2. Rooms with invalidated test kits from the Radon 2022 testing period (e.g. an open window in the room or disturbed test kit),
3. Rooms which were locked/inaccessible during the Radon 2022 testing period,
4. Rooms with elevated radon results (i.e. ≥3.5 piC/L),
5. Rooms previously tested for radon but not tested in Radon 2022, and
6. Additional rooms that require testing (if applicable.)

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

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

KCI returned to the site on April 01, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon 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 during the time of deployment and collection of the radon test kits:

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the mid 20°Fs and high temperatures ranged from the low 50°Fs to the mid 70°Fs. Maximum sustained winds ranged from 0-33 miles per hour. Average humidity was around 47% with 0.23 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal
ACI- Air Check, Inc.
D- Duplicate
FB- Field Blank
KCI- KCI Technologies, Inc.
OB- Office Blank
PM- Project Manager
QC- Quality Control

Table 1- Radon Testing Results		
Fairland ES RT		
Test Period: 03/29/2022 - 04/01/2022		
Kit Number	Room / Area	Result
11131746	APR	< 0.3
11140042	APR	< 0.3
11140043	APR	< 0.3
11140044	APR	0.7

Table 2- Radon Testing Results			
Fairland ES RT			
Test Period: 03/29/2022 - 04/01/2022			
Kit Number	QC Type	Room / Area	Result
11140043	D	APR	< 0.3
11131746	FB	APR	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Fairland ES RT		
Test Period: 03/29/22 - 04/01/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Fairland ES RT		
Test Period: 03/29/22 - 04/01/22		
Kit Number	Room/Area	Result
	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FAIRLAND ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131746	APR	2022-03-29 @ 12:00 pm	2022-04-01 @ 11:00 am	< 0.3	2022-04-04
11140042	APR	2022-03-29 @ 12:00 pm	2022-04-01 @ 11:00 am	< 0.3	2022-04-04
11140043	APR	2022-03-29 @ 12:00 pm	2022-04-01 @ 11:00 am	< 0.3	2022-04-04
11140044	APR	2022-03-29 @ 12:00 pm	2022-04-01 @ 11:00 am	0.7	2022-04-04

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: _____ Date Stop: _____
Time Start: 0705 Time Stop: 0705	Time Start: _____ Time Stop: _____
Device No.'s: (5) Char Bags -	Device No.'s: _____
11139367, 11139368, 11139371,	_____
11139710, 11139717	_____
E3 Eight	_____
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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139367	SK1	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.9 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

KCI TECHNOLOGIES

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Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

1. Watkins Mill HS
2. Cresthaven ES
3. East Silver Spring ES
4. Fairland Center
5. Francis Scott Key MS
6. Greencastle ES
7. Roscoe Nix ES
8. West Farm Transportation Depot
9. Wheaton HS
10. White Oak MS
11. William Tyler Page ES
12. Bel Pre ES
13. Fairland ES
14. Highland ES
15. Rolling Terrace ES
16. Takoma Park MS
17. Viers Mill ES
18. Poolesville ES

	Date	Initials
Radon Test Kits Deployed	03/29/2022	BMM
Radon Test Kits Collected	04/01/2022	BMM
Radon Test Kits Shipped to Lab*	04/01/2022	BMM
Radon Test Kits Received by Lab*	04/04/2022	BMM

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

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Fairland Elementary School
Date of Test Report	5/11/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	50
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.8 pCi/L

Project Status:
Initial testing completed; Missing or compromised samples need re-sampling

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May 11, 2022

Brian T. Croyle, PG, CHMM
Environmental Specialist
Montgomery County Public Schools
Gaithersburg, MD 20879

Re: **Radon Testing Services**
KCI Job # 122108316

Location: Fairland Elementary School
14315 Fairdale Rd.
Silver Spring, MD 20905

Dear Mr. Croyle:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools (MCPS) pursuant to completing a "short-term" 3 day radon test for the Fairland Elementary School, located at 14315 Fairdale Rd. Silver Spring, MD 20905 (subject site).

Scope of Services:

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

KCI visited the site on March 15, 2022 and deployed fifty-six (56) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on March 18, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a

NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentration levels at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the low 20s and high temperatures ranged from the mid 70s to the high 50s Fahrenheit. Maximum sustained winds ranged from 0-32 miles per hour. Average humidity was around 61% with 0.1 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal
ACI- Air Check, Inc.
D- Duplicate
FB- Field Blank
KCI- KCI Technologies, Inc.
OB- Office Blank
PM- Project Manager
QC- Quality Control

Table 1- Radon Testing Results		
Fairland ES		
Test Period: 03/15/2022 - 03/18/2022		
Kit Number	Room / Area	Result
11139761	1	1.1
11139758	2	2.8
11139757	3	0.6
11139764	4	0.6
11139738	5	< 0.3
11139744	5	0.7
11139746	6	2.0
11139745	7	1.1
11139748	8	0.6
11139733	10	0.8
11139743	10	< 0.3
11139737	11	1.0
11139755	12	2.0
11139762	12	2.2
11139714	13	1.2
11139769	14	< 0.3
11139770	14	< 0.3
11139750	15	< 0.3
11139766	16	< 0.3
11139773	17	0.8
11139774	17	0.7
11139753	18	0.5
11139752	19	< 0.3
11139760	19	0.5
11139754	20	0.6
11139759	21	1.9
11139751	22	0.6
11139720	24	< 0.3
11139784	101	< 0.3
11139785	101	< 0.3
11139786	102	0.7
11139772	103	0.6
11139703	104	0.6
11139742	104	0.5
11139788	105	< 0.3
11139765	107	< 0.3
11139779	108	< 0.3
11139780	109	0.7
11139767	110	< 0.3
11139787	111	< 0.3
11139756	211	< 0.3
11139749	16A	0.5

Table 1- Radon Testing Results		
Fairland ES		
Test Period: 03/15/2022 - 03/18/2022		
Kit Number	Room / Area	Result
11139776	AP	0.6
11139768	APR	1.1
11139778	BULDING SERVICES	1.8
11139704	CONFERENCE	0.6
11139763	GYM	0.8
11139783	GYM	0.7
11139782	HEALTH	< 0.3
11139712	IMC	< 0.3
11139713	IMC	< 0.3
11139789	MAIN OFFICE	1.1
11139739	MAT PREP	0.6
11139771	PE OFFICE	1.1
11139707	PRINCIPAL	1.8
11139775	WORKROOM	0.7

Table 2- Radon Testing Results			
Fairland ES			
Test Period: 03/15/2022 - 03/18/2022			
Kit Number	QC Type	Room / Area	Result
11139785	D	101	< 0.3
11139770	FB	14	< 0.3
11139760	D	19	0.5
11139743	FB	10	< 0.3
11139762	D	12	2.2
11139703	D	104	0.6
11138953	OB	OFFICE BLANK	< 0.3
11138945	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Fairland ES		
Test Period: 03/15/22 - 03/18/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Fairland ES		
Test Period: 03/15/22 - 03/18/22		
Kit Number	Room/Area	Result
11139777	APR	Missing

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 22, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FAIRLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139761	1	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	1.1 ± 0.3	2022-03-21
11139733	10	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.8 ± 0.3	2022-03-21
11139743	10	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139784	101	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139785	101	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139786	102	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	0.7 ± 0.3	2022-03-21
11139772	103	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	0.6 ± 0.3	2022-03-21
11139703	104	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.6 ± 0.3	2022-03-21
11139742	104	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.5 ± 0.3	2022-03-21
11139788	105	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139765	107	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139779	108	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139780	109	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	0.7 ± 0.3	2022-03-21
11139737	11	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	1.0 ± 0.3	2022-03-21
11139767	110	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139787	111	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139755	12	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	2.0 ± 0.3	2022-03-21
11139762	12	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	2.2 ± 0.3	2022-03-21
11139714	13	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	1.2 ± 0.3	2022-03-21
11139769	14	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139770	14	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139750	15	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139766	16	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139749	16A	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.5 ± 0.3	2022-03-21
11139774	17	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.7 ± 0.3	2022-03-21
11139773	17	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.8 ± 0.3	2022-03-21
11139753	18	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.5 ± 0.3	2022-03-21
11139760	19	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.5 ± 0.3	2022-03-21
11139752	19	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139758	2	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	2.8 ± 0.3	2022-03-21
11139754	20	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.6 ± 0.3	2022-03-21
11139759	21	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	1.9 ± 0.3	2022-03-21
11139756	211	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139751	22	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.6 ± 0.3	2022-03-21
11139720	24	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139757	3	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.6 ± 0.3	2022-03-21
11139764	4	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.6 ± 0.3	2022-03-21

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March 22, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FAIRLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139744	5	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.7 ± 0.3	2022-03-21
11139738	5	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139746	6	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	2.0 ± 0.3	2022-03-21
11139745	7	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	1.1 ± 0.3	2022-03-21
11139748	8	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.6 ± 0.3	2022-03-21
11139776	AP	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	0.6 ± 0.3	2022-03-21
11139768	APR	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	1.1 ± 0.3	2022-03-21
11139778	BULDING SERVICES	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	1.8 ± 0.3	2022-03-21
11139704	CONFERENCE	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	0.6 ± 0.3	2022-03-21
11139783	GYM	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	0.7 ± 0.3	2022-03-21
11139763	GYM	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	0.8 ± 0.3	2022-03-21
11139782	HEALTH	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	< 0.3	2022-03-21
11139712	IMC	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139713	IMC	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	< 0.3	2022-03-21
11139789	MAIN OFFICE	2022-03-15 @ 8:00 am	2022-03-18 @ 10:00 am	1.1 ± 0.3	2022-03-21
11139739	MAT PREP	2022-03-15 @ 9:00 am	2022-03-18 @ 10:00 am	0.6 ± 0.3	2022-03-21
11139771	PE OFFICE	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	1.1 ± 0.3	2022-03-21
11139707	PRINCIPAL	2022-03-15 @ 9:00 am	2022-03-18 @ 9:00 am	1.8 ± 0.3	2022-03-21
11139775	WORKROOM	2022-03-15 @ 8:00 am	2022-03-18 @ 9:00 am	0.7 ± 0.3	2022-03-21

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EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: _____ Date Stop: _____
Time Start: 0705 Time Stop: 0705	Time Start: _____ Time Stop: _____
Device No.'s: (5) Char Bags -	Device No.'s: _____
11139367, 11139368, 11139371,	_____
11139710, 11139717	_____
E3 Eight	_____
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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139367	SK1	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.9 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools

Name of Schools:

1. Singer, Flora M. ES
2. Sligo MS
3. Spring Mill Center
4. Fairland ES
5. Bel Pre ES
6. Shriver, Sargent ES
7. Strathmore ES
8. Viers Mill ES
9. Piney Branch ES

	Date	Initials
Radon Test Kits Deployed	03/15/2022	
Radon Test Kits Collected	03/18/2022	
Radon Test Kits Shipped to Lab*	03/18/2022	
Radon Test Kits Received by Lab*	03/20/2022	

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

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MCPS RADON TESTING

Executive Summary: Fairland Elementary School

Date of Test Report:	1/13/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	68
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.7

Project Status:
Initial testing completed; One test kit was missing from Storage 1; however, based on the low test results from adjacent rooms and within the school, no further action is recommended at this time.

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

January 13, 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 # 12146341.20

Location: Fairland Elementary School
14315 Fairdale Road
Silver Spring, MD 20905

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 Fairland Elementary School, located at 14315 Fairdale Road in Silver Spring, Maryland 20905 (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 December 21, 2015 and deployed seventy-four (74) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI also included 4 duplicate samples (10%), 1 field blanks (3%), and 1 office blank (1%). Prior to sampling, KCI returned 1% of the test batch to the laboratory for analysis as lab transit blanks. 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 December 24, 2015 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 ≤ 65° 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 during the 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 piC/L	None	n/a
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,

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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Fairland Elementary School		
Test Period: 12/21/15-12/24/15		
Kit Number	**Room / Area**	**Result**
7713632	1	2.3
7713649	2	1.2
7713651	3	0.7
7713650	4	0.9
7713652	5	1
7713656	6	0.7
7713655	7	0.8
7713625	8	< 0.3
7713624	10	0.7
7713623	11	< 0.3
7713621	12	0.9
7713622	13	1.1
7713635	14	< 0.3
7713637	15	0.9
7713639	16	< 0.3
7713628	17	0.6
7713633	18	1
7713646	19	0.6
7713643	20	1.4
7713641	21	1.9
7713642	21	2.1
7713640	22	1.9
7713678	34	0.7
7713608	101	1.1
7713611	102	1.1
7713612	102	< 0.3
7713674	103	1
7713605	104	1.2
7713613	105	0.9
7713615	106	0.6
7713618	106	0.8
7713675	107	1.2
7713606	108	1.6
7713616	108	0.9
7713617	109	0.9
7713619	110	0.6
7713610	111	0.8
7713677	208	0.8
7713676	209	0.9
7713634	16A	0.7
7713638	16B	0.7
7713662	ASSIST PRINCIP	0.8
7713679	BLDG SER 2	1.8
7713631	BLDG SERV 1	0.5
7713669	CAFE	1
7713670	CAFE	1.2

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Fairland Elementary School		
Test Period: 12/21/15-12/24/15		
Kit Number	**Room / Area**	**Result**
7713664	CONFRENCE	2.1
7713665	COPY ROOM	0.8
7713645	GYM	1
7713647	GYM	< 0.3
7713648	GYM	1.3
7713653	GYM	1
7713672	GYM OFFICE	1.2
7713654	HEALTH	1.1
7713667	KITCHEN	1.2
7713630	MAT PREP	0.6
7713626	MAT PREP STORAGE	1.3
7713627	MEDIA CNTR	0.5
7713629	MEDIA CNTR	0.8
7713671	OBSERVATION RM	0.8
7713658	OFFICE	< 0.3
7713663	PRINCIPAL	2.7
7713659	PRIVATE	0.8
7713620	STORAGE 2	0.8
7713636	STORAGE 3	1.1
7713614	* STORAGE1 (missing)	-
7713661	TELE 2	0.9
7713644	TELE RM 1	1.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Fairland Elementary School		
Test Period: 12/21/15-12/24/15		
Kit Number	**QC Type**	**Result**
7713668	D (CAFE)	1
7713673	D (GYM OFFICE)	1.1
7713666	D (KITCHEN)	0.8
7713657	D (OFFICE)	0.8
7713660	FB (HEALTH)	< 0.3
7707336	OB (0)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 12, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

FAIRLAND ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7707336	0	2015-12-21 @ 3:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713632	1	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	2.3 ± 0.4	2015-12-28
7713624	10	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7713608	101	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.1 ± 0.3	2015-12-28
7713611	102	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.1 ± 0.3	2015-12-28
7713612	102	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7713674	103	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.0 ± 0.3	2015-12-29
7713605	104	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.2 ± 0.3	2015-12-28
7713613	105	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713615	106	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-29
7713618	106	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.4	2015-12-29
7713675	107	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.2 ± 0.3	2015-12-28
7713606	108	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.6 ± 0.3	2015-12-28
7713616	108	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713617	109	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713623	11	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7713619	110	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-28
7713610	111	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713621	12	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713622	13	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.1 ± 0.3	2015-12-28
7713635	14	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713637	15	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7713639	16	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713634	16A	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-28
7713638	16B	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-29
7713628	17	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7713633	18	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713646	19	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7713649	2	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.2 ± 0.3	2015-12-28
7713643	20	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.4 ± 0.3	2015-12-28
7713677	208	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713676	209	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7713641	21	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.9 ± 0.4	2015-12-28
7713642	21	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	2.1 ± 0.4	2015-12-28
7713640	22	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.9 ± 0.3	2015-12-28
7713651	3	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7713678	34	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-28

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

January 12, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

FAIRLAND ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7713650	4	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713652	5	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.0 ± 0.3	2015-12-28
7713656	6	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7713655	7	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-29
7713625	8	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7713662	ASSIST PRINCIP	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713679	BLDG SER 2	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	1.8 ± 0.3	2015-12-28
7713631	BLDG SERV 1	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7713668	CAFE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713670	CAFE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.2 ± 0.3	2015-12-28
7713669	CAFE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.4	2015-12-29
7713664	CONFRENCE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	2.1 ± 0.4	2015-12-28
7713665	COPY ROOM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.4	2015-12-29
7713645	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713647	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713648	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.3 ± 0.3	2015-12-28
7713653	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713672	GYM OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.2 ± 0.3	2015-12-28
7713673	GYM OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7713654	HEALTH	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7713660	HEALTH	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713666	KITCHEN	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713667	KITCHEN	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.2 ± 0.3	2015-12-28
7713630	MAT PREP	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-29
7713626	MAT PREP STORAGE	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.3 ± 0.4	2015-12-28
7713627	MEDIA CNTR	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.5 ± 0.3	2015-12-28
7713629	MEDIA CNTR	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.4	2015-12-29
7713671	OBSERVATION RM	2015-12-21 @ 2:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713657	OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713658	OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7713663	PRINCIPAL	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	2.7 ± 0.5	2015-12-29
7713659	PRIVATE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713620	STORAGE 2	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713636	STORAGE 3	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.1 ± 0.4	2015-12-29
7713614	STORAGE1	@	@		
7713661	TELE 2	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.9 ± 0.4	2015-12-29
7713644	TELE RM 1	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.3 ± 0.3	2015-12-28

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

December 29, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

TRANSIT DEC 14 2015
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704395	TRANSIT 1	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706508	TRANSIT 10	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706510	TRANSIT 11	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706511	TRANSIT 12	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706505	TRANSIT 13	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704371	TRANSIT 14	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706506	TRANSIT 15	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704381	TRANSIT 16	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704399	TRANSIT 17	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704390	TRANSIT 18	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704396	TRANSIT 2	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704364	TRANSIT 3	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704370	TRANSIT 4	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704368	TRANSIT 5	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706524	TRANSIT 6	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706526	TRANSIT 7	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706518	TRANSIT 8	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706516	TRANSIT 9	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16

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

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, 7706211, 7706366, 7706380, 7706381 F3 Left	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: _____
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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Chain of Custody

Project Name: MCPS Radon Phase II

School Names:

1. Bannonckburn ES
2. Walt Whitman HS
3. Walter Johnson HS
4. North Chevy Chase ES
5. Piney Branch ES
6. Forest Knolls ES
7. Newport Mill MS
8. Broad Acres ES
9. Briggs Chaney MS
10. Blair G. Ewing Center
11. Sherwood HS
12. Hadley Farms
13. S. Christa McAuliffe ES
14. Ronald A. McNair ES
15. MLK MS
16. Ashburton ES
17. Bradley Hills ES
18. Flora M. Singer ES
19. Woodlin ES
20. Montgomery Knolls ES
21. Fairland ES
22. Cannon Road ES
23. Richard Montgomery HS
24. Brooke Grove ES
25. Belmont ES
26. Emory Grove
27. Clarksburg HS
28. Clarksburg ES
29. John T. Baker MS

	Date	Initials
Radon Test Kits Deployed	12/21/2015	
Radon Test Kits Collected	12/24/2015	
Radon Test Kits Shipped to Lab*	12/24/2015	
Radon Test Kits Received by Lab*	12/28/2015	

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

KCI TECHNOLOGIES

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

MCPS RADON TESTING

Executive Summary: Fairland Elementary School

Date of Test Report:	1/13/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	68
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.7

Project Status:
Initial testing completed; One test kit was missing from Storage 1; however, based on the low test results from adjacent rooms and within the school, no further action is recommended at this time.

KCI TECHNOLOGIES

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

January 13, 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 # 12146341.20

Location: Fairland Elementary School
14315 Fairdale Road
Silver Spring, MD 20905

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 Fairland Elementary School, located at 14315 Fairdale Road in Silver Spring, Maryland 20905 (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 December 21, 2015 and deployed seventy-four (74) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI also included 4 duplicate samples (10%), 1 field blanks (3%), and 1 office blank (1%). Prior to sampling, KCI returned 1% of the test batch to the laboratory for analysis as lab transit blanks. 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 December 24, 2015 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 ≤ 65° 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 during the 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 piC/L	None	n/a
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,

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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Fairland Elementary School		
Test Period: 12/21/15-12/24/15		
Kit Number	**Room / Area**	**Result**
7713632	1	2.3
7713649	2	1.2
7713651	3	0.7
7713650	4	0.9
7713652	5	1
7713656	6	0.7
7713655	7	0.8
7713625	8	< 0.3
7713624	10	0.7
7713623	11	< 0.3
7713621	12	0.9
7713622	13	1.1
7713635	14	< 0.3
7713637	15	0.9
7713639	16	< 0.3
7713628	17	0.6
7713633	18	1
7713646	19	0.6
7713643	20	1.4
7713641	21	1.9
7713642	21	2.1
7713640	22	1.9
7713678	34	0.7
7713608	101	1.1
7713611	102	1.1
7713612	102	< 0.3
7713674	103	1
7713605	104	1.2
7713613	105	0.9
7713615	106	0.6
7713618	106	0.8
7713675	107	1.2
7713606	108	1.6
7713616	108	0.9
7713617	109	0.9
7713619	110	0.6
7713610	111	0.8
7713677	208	0.8
7713676	209	0.9
7713634	16A	0.7
7713638	16B	0.7
7713662	ASSIST PRINCIP	0.8
7713679	BLDG SER 2	1.8
7713631	BLDG SERV 1	0.5
7713669	CAFE	1
7713670	CAFE	1.2

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Fairland Elementary School		
Test Period: 12/21/15-12/24/15		
Kit Number	**Room / Area**	**Result**
7713664	CONFRENCE	2.1
7713665	COPY ROOM	0.8
7713645	GYM	1
7713647	GYM	< 0.3
7713648	GYM	1.3
7713653	GYM	1
7713672	GYM OFFICE	1.2
7713654	HEALTH	1.1
7713667	KITCHEN	1.2
7713630	MAT PREP	0.6
7713626	MAT PREP STORAGE	1.3
7713627	MEDIA CNTR	0.5
7713629	MEDIA CNTR	0.8
7713671	OBSERVATION RM	0.8
7713658	OFFICE	< 0.3
7713663	PRINCIPAL	2.7
7713659	PRIVATE	0.8
7713620	STORAGE 2	0.8
7713636	STORAGE 3	1.1
7713614	* STORAGE1 (missing)	-
7713661	TELE 2	0.9
7713644	TELE RM 1	1.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Fairland Elementary School		
Test Period: 12/21/15-12/24/15		
Kit Number	**QC Type**	**Result**
7713668	D (CAFE)	1
7713673	D (GYM OFFICE)	1.1
7713666	D (KITCHEN)	0.8
7713657	D (OFFICE)	0.8
7713660	FB (HEALTH)	< 0.3
7707336	OB (0)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 12, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

FAIRLAND ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7707336	0	2015-12-21 @ 3:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713632	1	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	2.3 ± 0.4	2015-12-28
7713624	10	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7713608	101	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.1 ± 0.3	2015-12-28
7713611	102	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.1 ± 0.3	2015-12-28
7713612	102	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7713674	103	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.0 ± 0.3	2015-12-29
7713605	104	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.2 ± 0.3	2015-12-28
7713613	105	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713615	106	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-29
7713618	106	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.4	2015-12-29
7713675	107	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.2 ± 0.3	2015-12-28
7713606	108	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.6 ± 0.3	2015-12-28
7713616	108	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713617	109	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713623	11	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7713619	110	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-28
7713610	111	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713621	12	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713622	13	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.1 ± 0.3	2015-12-28
7713635	14	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713637	15	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7713639	16	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713634	16A	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-28
7713638	16B	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-29
7713628	17	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7713633	18	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713646	19	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7713649	2	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.2 ± 0.3	2015-12-28
7713643	20	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.4 ± 0.3	2015-12-28
7713677	208	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713676	209	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7713641	21	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.9 ± 0.4	2015-12-28
7713642	21	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	2.1 ± 0.4	2015-12-28
7713640	22	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.9 ± 0.3	2015-12-28
7713651	3	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7713678	34	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-28

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

January 12, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

FAIRLAND ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7713650	4	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.9 ± 0.3	2015-12-28
7713652	5	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	1.0 ± 0.3	2015-12-28
7713656	6	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7713655	7	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-29
7713625	8	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7713662	ASSIST PRINCIP	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713679	BLDG SER 2	2015-12-21 @ 2:00 pm	2015-12-24 @ 9:00 am	1.8 ± 0.3	2015-12-28
7713631	BLDG SERV 1	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7713668	CAFE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713670	CAFE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.2 ± 0.3	2015-12-28
7713669	CAFE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.4	2015-12-29
7713664	CONFRENCE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	2.1 ± 0.4	2015-12-28
7713665	COPY ROOM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.4	2015-12-29
7713645	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713647	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713648	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.3 ± 0.3	2015-12-28
7713653	GYM	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7713672	GYM OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.2 ± 0.3	2015-12-28
7713673	GYM OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7713654	HEALTH	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7713660	HEALTH	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7713666	KITCHEN	2015-12-21 @ 1:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713667	KITCHEN	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.2 ± 0.3	2015-12-28
7713630	MAT PREP	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-29
7713626	MAT PREP STORAGE	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	1.3 ± 0.4	2015-12-28
7713627	MEDIA CNTR	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.5 ± 0.3	2015-12-28
7713629	MEDIA CNTR	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.4	2015-12-29
7713671	OBSERVATION RM	2015-12-21 @ 2:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713657	OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713658	OFFICE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7713663	PRINCIPAL	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	2.7 ± 0.5	2015-12-29
7713659	PRIVATE	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7713620	STORAGE 2	2015-12-21 @ 12:00 pm	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7713636	STORAGE 3	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.1 ± 0.4	2015-12-29
7713614	STORAGE1	@	@		
7713661	TELE 2	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	0.9 ± 0.4	2015-12-29
7713644	TELE RM 1	2015-12-21 @ 1:00 pm	2015-12-24 @ 9:00 am	1.3 ± 0.3	2015-12-28

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

December 29, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

TRANSIT DEC 14 2015
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704395	TRANSIT 1	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706508	TRANSIT 10	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706510	TRANSIT 11	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706511	TRANSIT 12	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706505	TRANSIT 13	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704371	TRANSIT 14	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706506	TRANSIT 15	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704381	TRANSIT 16	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704399	TRANSIT 17	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704390	TRANSIT 18	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704396	TRANSIT 2	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704364	TRANSIT 3	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704370	TRANSIT 4	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704368	TRANSIT 5	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706524	TRANSIT 6	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706526	TRANSIT 7	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706518	TRANSIT 8	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706516	TRANSIT 9	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16

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

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, 7706211, 7706366, 7706380, 7706381 F3 Left	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: _____
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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Chain of Custody

Project Name: MCPS Radon Phase II

School Names:

1. Bannonckburn ES
2. Walt Whitman HS
3. Walter Johnson HS
4. North Chevy Chase ES
5. Piney Branch ES
6. Forest Knolls ES
7. Newport Mill MS
8. Broad Acres ES
9. Briggs Chaney MS
10. Blair G. Ewing Center
11. Sherwood HS
12. Hadley Farms
13. S. Christa McAuliffe ES
14. Ronald A. McNair ES
15. MLK MS
16. Ashburton ES
17. Bradley Hills ES
18. Flora M. Singer ES
19. Woodlin ES
20. Montgomery Knolls ES
21. Fairland ES
22. Cannon Road ES
23. Richard Montgomery HS
24. Brooke Grove ES
25. Belmont ES
26. Emory Grove
27. Clarksburg HS
28. Clarksburg ES
29. John T. Baker MS

	Date	Initials
Radon Test Kits Deployed	12/21/2015	
Radon Test Kits Collected	12/24/2015	
Radon Test Kits Shipped to Lab*	12/24/2015	
Radon Test Kits Received by Lab*	12/28/2015	

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