Carnow, Conibear & Assoc., Ltd.
Environmental Consulting Services
600 W. Van Buren St., Suite 500, Chicago, IL 60607
t: 312.782.4486 f: 312.782.5145
www.ccaltd.com

CARNOW CONIBEAR

Radon Measurement Survey Report

Site:

O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Survey Dates: May 1, 2018 thru May 3, 2018

Prepared For:

East Aurora School District 131
417 Fifth Street
Aurora, Illinois 60505

Carnow Conibear Project No. A146000137

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Radon Measurement Survey Report

Site:

O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Surveyed by: Nicole Bennett
Nicole Bennett
Radon Measurement Professional

Report by: Nicole Bennett
Nicole Bennett
Radon Measurement Professional

Reviewed by:
Derek Lantry
Director, Technical Services

Report Issued: July 3, 2018

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APPENDICES

1.0 EXECUTIVE SUMMARY

Carnow, Conibear, & Assoc., Ltd. (Carnow Conibear) was contracted by East Aurora School District 131 to perform a radon measurement survey at the O'Donnell Elementary School located at 1640 Reckinger Road in Aurora, Illinois. The survey was initiated on May 1, 2018 and completed on May 3, 2018 by Nicole Bennett, an Illinois Emergency Management Agency (IEMA) licensed Radon Measurement Professional (License No. RNI2016213). The scope of work included short-term (two to four day) radon measurements in frequently occupied rooms with substantial ground contact. The radon sampling was performed following IEMA and the United States Environmental Protection Agency (USEPA) testing protocols for commercial and school radon measurements, the radon device manufacturer's recommendations, and Carnow Conibear's Quality Assurance Plan.

A total of seventy-three (73) radon test devices were deployed including sixty-three (63) single devices, six (6) duplicates, and four (4) blanks. Activated radon charcoal devices manufactured by Air Chek Inc. were utilized during the radon survey. The activated charcoal devices are passive devices containing activated carbon to measure radon. Testing was initiated on May 1, 2018 and completed on May 3, 2018.

Radon measurement results ranged from less than (<) 0.3 to 1.4 PicoCuries per liter (pCi/L). The radon measurement results indicate areas tested were below the EPA and IEMA recommended action level of 4.0 pCi/L during the time of the test. The average indoor radon concentrations are 1.3 pCi/L nationwide. The average outdoor radon concentration is 0.4 pCi/L.

Based on the radon measurement results Carnow Conibear recommends routine follow-up radon measurement survey every three (3) years, preferably at different seasonal times of the year. Additional radon testing is recommended if significant changes are made to the building's structural or mechanical components.

2.0 BACKGROUND

Radon is a naturally occurring, radioactive, colorless, odorless, tasteless gas produced from the decay of uranium and radium found in most soil and rock. Natural soils and rock such as granites, shales, and corals, contaminated soils from uranium processing mills, contaminated building materials, and groundwater water supplies directly from wells are a few common sources of radon. Radon can be found at some level in all indoor and outdoor air. Unlike most airborne contaminants radon is chemically inert, or chemically inactive. As a result, it is not chemically bound or attached to other materials and can move easily through porous materials or void space.

Typically, most radon gas is generated from the surrounding soil or bedrock, pulled through the soil or rock by air pressure differentials and enters the structure. However, radon gas can come from water, outside air, or contaminated building materials. The strength of the radon source has the biggest impact on indoor radon concentrations. The route of entry (i.e. through holes in the foundation), the building's ventilation rate, foundation type and differences in soils beneath the building can affect the indoor radon concentrations.

The primary health effect attributed to radon exposure is lung cancer. The World Health Organization (WHO), the National Academy of Sciences, the US Department of Health and Human Services, and the EPA classify radon as known human carcinogen. The EPA states radon is the largest source of radiation exposure and risk to the general public. When radon and products of radon decay are inhaled, decay can occur while in contact with the lung prior to being expelled. Because radon is chemically inert, most inhaled radon is rapidly exhaled. However, the inhaled decay products are readily deposited in the lungs, release energy in the form of radiation causing lung tissue damage and consequently increase the risk of lung cancer.

Radon concentrations in air are commonly expressed in picoCuries per liter (pCi/L) in the United States. An EPA national residential radon survey completed in 1991, determined the average indoor radon level is 1.3 pCi/L and the average outdoor level is about 0.4 pCi/L. The National Academy of Sciences' (NAS) latest report on radon, the Biological Effects of Ionizing Radiation (BEIR) VI Report (1999) estimates radon in indoor air causes about 21,000 lung cancer deaths each year in the United States. The EPA states that any level of radon carries some risk, there are no safe levels, and has established an action level of 4.0 pCi/L.

3.0 SCOPE OF WORK

Carnow, Conibear was contracted by East Aurora School District 131 to perform a radon survey at the O'Donnell Elementary School located at 1640 Reckinger Road in Aurora, Illinois.

The scope of work included short-term radon measurements in frequently occupied rooms with substantial ground contact. The duration of short-term measurements can range from two (2) to four (4) days. Prior to placement of the radon measurement devices a Quality Assurance Project Plan (QAPP) was developed and general observations were performed to verify test conditions, identify device placement locations, and determine structural and mechanical building components. The QAPP was created to document and describe the necessary quality assurance procedures, quality control activities, and provide a clear, concise, and complete plan for the radon measurement operations. Observations of test conditions verified closed building conditions were maintained at a minimum of twelve (12) hours prior to testing and throughout the measurement period. Closed building conditions are necessary for short-term radon measurements in order to stabilize the radon and radon decay product concentrations and increase the reproducibility of the measurement. Closed building conditions require windows and exterior doors on all levels be kept closed (except for normal entry and exit) during the measurement period. Closed building conditions also require the normal operation of heating, ventilating, and air condition systems.

Radon test devices were deployed in sixty-three (63) locations. In addition, six (6) duplicates, and four (4) blanks, were utilized to measure precision and bias, and ensure quality data. Radon test devices were documented in a permanent log noting the address of the building measured, a diagram of the test area noting the exact locations of all measurement devices deployed, exact start and stop times of the measurement period, a description of the device used and serial number, and the name and IEMA license number of the Radon Measurement Professional. At the end of the measurement period the radon test devices were retrieved, resealed, and mailed to the laboratory for analysis.

The radon measurement results are reported in picoCurie per liter. A picoCurie per liter is 2.22 atomic radon disintegrations per minute for each liter of air. The results of the radon measurements are interpreted to determine the need for additional testing and assess the quality and confidence of the measurement data. Typically, follow-up measurements will be recommended in every room with results greater than 4.0 pCi/L. The recommendation to mitigate elevated levels of radon shall not be based on the initial measurement results.

4.0 METHODOLOGY

The radon testing was performed following requirements set forth by the IEMA, USEPA, and Carnow Conibear's Quality Assurance Plan. The radon measurement survey consisted of several phases. The initial phase consisted of preliminary testing protocol, including an explanation of services, instructions to comply with closed building conditions, the development of the Quality Assurance Project Plan, and determination of the testing period. Next, general observations of the building were performed to verify test conditions, identify device placement locations, and determine structural and mechanical building components.

The measurement phase included the radon testing device placement and retrieval. Activated radon charcoal devices manufactured by Air Chek Inc. were utilized during this radon survey. The activated charcoal devices are passive devices containing activated carbon to measure radon. Radon test devices were placed in such a way to limit unintentional interference from building occupants. The measurement devices were placed at least three feet from doors, windows to the outside, at least one foot from exterior walls, at least four feet from heat sources, out of the direct flow of ventilation ducts and sunlight, and suspended in the general breathing zone. Duplicate tests were conducted for a minimum of 10% of the total radon test devices deployed to measure precision. Field blanks were submitted for a minimum of 5% of the total number of radon test devices deployed to measure background gamma radiation. Spike tests were not submitted for this survey, but are submitted for a minimum of three per 100 radon test devices or a minimum of three per year to measure laboratory accuracy. A total of seventy-three (73) radon test devices were deployed including sixty-three (63) single devices, six (6) duplicates, and four (4) blanks. At the end of the measurement period the radon measurement devices were retrieved, resealed, and shipped overnight to Air Chek Inc. for analysis. Air Chek Inc. calculates the radon concentration after measuring the gamma activity by the radon decay products produced from the random decay of the collected radon. The final phase consisted of interpreting the results and an assessment of the quality and confidence of the measurement data.

5.0 SUMMARY OF RESULTS

Table 1.0 Radon Measurement Device Results identify all the radon measurement devices deployed and the reported radon results. The radon measurement results are reported in picoCurie per liter (pCi/L).

Radon measurement results were below 4.0pCi/L. The radon measurement results indicate areas tested were below the EPA and IEMA recommended action level of 4.0 pCi/L during the time of the test. No radon mitigation systems were observed in the building. Additionally, the following testing abnormalities were noted during the radon measurement interval.

- The device (serial #9043251) deployed in Room 210 was missing at the time of retrieval

Table 1.0 Radon Measurement Device Results

O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Room 123A	9043226	5/1/2018	5:02 PM	5/3/2018	7:35 PM	< 0.3	
Room 125	9043227	5/1/2018	5:03 PM	5/3/2018	7:31 PM	< 0.3	
Room 124A	9043228	5/1/2018	5:04 PM	5/3/2018	7:28 PM	< 0.3	
Room 120	9043229	5/1/2018	5:05 PM	5/3/2018	7:31 PM	< 0.3	
Room 122	9043230	5/1/2018	5:07 PM	5/3/2018	7:28 PM	< 0.3	
Room 101	9043231	5/1/2018	5:09 PM	5/3/2018	7:46 PM	< 0.3	
Room 101	9043232	5/1/2018	5:09 PM	5/3/2018	7:46 PM	< 0.3	Duplicate RPD = 0.0%
Room 101 Closet	9043233	5/1/2018	5:11 PM	5/3/2018	7:47 PM	< 0.3	
Room 102	9043234	5/1/2018	5:13 PM	5/3/2018	7:46 PM	< 0.3	
Room 103	9043235	5/1/2018	5:15 PM	5/3/2018	7:46 PM	< 0.3	
Room 146	9043236	5/1/2018	5:16 PM	5/3/2018	7:45 PM	1.2	
Room 104	9043237	5/1/2018	5:17 PM	5/3/2018	7:48 PM	< 0.3	
Room 105	9043238	5/1/2018	5:19 PM	5/3/2018	7:47 PM	< 0.3	
Room 106	9043239	5/1/2018	5:21 PM	5/3/2018	7:50 PM	< 0.3	
Room 107	9043240	5/1/2018	5:23 PM	5/3/2018	7:50 PM	< 0.3	
Room 134	9043241	5/1/2018	5:24 PM	5/3/2018	7:57 PM	< 0.3	
Room 215	9043242	5/1/2018	5:27 PM	5/3/2018	7:30 PM	< 0.3	
Room 215	9043243	5/1/2018	5:27 PM	5/3/2018	7:30 PM	< 0.3	Duplicate RPD = 0.0%
Room 201	9043244	5/1/2018	5:29 PM	5/3/2018	7:33 PM	< 0.3	
Room 202	9043245	5/1/2018	5:30 PM	5/3/2018	7:32 PM	< 0.3	

Table 1.0 Radon Measurement Device Results

O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Room 203	9043246	5/1/2018	5:33 PM	5/3/2018	7:29 PM	< 0.3	
Room 204	9043247	5/1/2018	5:36 PM	5/3/2018	7:32 PM	< 0.3	
Room 212	9043248	5/1/2018	5:38 PM	5/3/2018	7:35 PM	0.6	
Room 211	9043249	5/1/2018	5:40 PM	5/3/2018	7:34 PM	< 0.3	
Room 209	9043250	5/1/2018	5:41 PM	5/3/2018	7:29 PM	< 0.3	
Room 210	9043251	5/1/2018	5:42 PM	5/3/2018	-		Missing
Room 210	9043252	5/1/2018	5:43 PM	5/3/2018	7:34 PM	0.5	
Room 247	9043253	5/1/2018	5:45 PM	5/3/2018	7:30 PM	< 0.3	
Room 247A Sprinkler	9043254	5/1/2018	5:46 PM	5/3/2018	7:30 PM	< 0.3	
Room 205	9043255	5/1/2018	5:47 PM	5/3/2018	7:34 PM	< 0.3	
Room 205	9043256	5/1/2018	5:47 PM	5/3/2018	7:34 PM	< 0.3	Duplicate RPD = 0.0%
Room 206	9043257	5/1/2018	5:48 PM	5/3/2018	7:31 PM	< 0.3	
Room 207	9043258	5/1/2018	5:50 PM	5/3/2018	7:29 PM	< 0.3	
Room 208	9043259	5/1/2018	5:51 PM	5/3/2018	7:34 PM	< 0.3	
Room 213	9043260	5/1/2018	5:53 PM	5/3/2018	7:32 PM	1.4	
Room 214	9043261	5/1/2018	5:54 PM	5/3/2018	7:33 PM	0.5	
Room 108	9043262	5/1/2018	5:55 PM	5/3/2018	7:56 PM	< 0.3	
Room 109	9043263	5/1/2018	5:57 PM	5/3/2018	7:54 PM	< 0.3	
Room 109	9043264	5/1/2018	5:57 PM	5/3/2018	7:54 PM	< 0.3	Duplicate RPD = 0.0%
Room S176	9043265	5/1/2018	5:59 PM	5/3/2018	7:50 PM	< 0.3	
Room 110	9043266	5/1/2018	6:01 PM	5/3/2018	7:55 PM	< 0.3	

Table 1.0 Radon Measurement Device Results

O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Room 111	9043267	5/1/2018	6:03 PM	5/3/2018	7:55 PM	< 0.3	
Room C145	9043268	5/1/2018	6:04 PM	5/3/2018	7:55 PM	0.6	
Room 112	9043269	5/1/2018	6:05 PM	5/3/2018	8:00 PM	0.5	
Multi-Purpose Room	9043270	5/1/2018	6:07 PM	5/3/2018	7:59 PM	< 0.3	
Room 113	9043271	5/1/2018	6:08 PM	5/3/2018	8:01 PM	< 0.3	
Room 114	9043272	5/1/2018	6:10 PM	5/3/2018	8:02 PM	< 0.3	
Room 317	9043273	5/1/2018	6:14 PM	5/3/2018	8:10 PM	< 0.3	
Room 316	9043274	5/1/2018	6:16 PM	5/3/2018	8:09 PM	< 0.3	
Room 304	9043275	5/1/2018	6:19 PM	5/3/2018	8:11 PM	< 0.3	
Room 304	9043276	5/1/2018	6:20 PM	5/3/2018	8:12 PM	< 0.3	
Room S304	9043277	5/1/2018	6:22 PM	5/3/2018	8:10 PM	< 0.3	
Room 303	9043278	5/1/2018	6:23 PM	5/3/2018	8:12 PM	< 0.3	
Room 303	9043279	5/1/2018	6:24 PM	5/3/2018	8:13 PM	< 0.3	
Room S303	9043280	5/1/2018	6:26 PM	5/3/2018	8:12 PM	< 0.3	
Room 302	9043281	5/1/2018	6:28 PM	5/3/2018	8:12 PM	< 0.3	
Room 302	9043282	5/1/2018	6:28 PM	5/3/2018	8:12 PM	< 0.3	Duplicate RPD = 0.0%
Room S302	9043283	5/1/2018	6:32 PM	5/3/2018	8:13 PM	< 0.3	
Room 301	9043284	5/1/2018	6:33 PM	5/3/2018	8:10 PM	< 0.3	
Room 301	9043285	5/1/2018	6:34 PM	5/3/2018	8:11 PM	< 0.3	
Room S301	9043286	5/1/2018	6:35 PM	5/3/2018	8:11 PM	< 0.3	
Room S172	9043287	5/1/2018	6:36 PM	5/3/2018	8:17 PM	0.5	
Room S173	9043288	5/1/2018	6:37 PM	5/3/2018	8:16 PM	< 0.3	

Table 1.0 Radon Measurement Device Results

O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Gym	9043289	5/1/2018	6:38 PM	5/3/2018	8:17 PM	< 0.3	
Gym	9043290	5/1/2018	6:39 PM	5/3/2018	8:16 PM	< 0.3	
Room C143 Boiler	9043291	5/1/2018	6:42 PM	5/3/2018	8:00 PM	< 0.3	
Room C143 Boiler (Further Back)	9043292	5/1/2018	6:44 PM	5/3/2018	8:00 PM	< 0.3	
Room 115	9043293	5/1/2018	6:46 PM	5/3/2018	7:59 PM	< 0.3	
Room 115	9043294	5/1/2018	6:46 PM	5/3/2018	7:59 PM	< 0.3	Duplicate RPD = 0.0%
Room 131	9043295	5/1/2018	6:47 PM	5/3/2018	8:16 PM	1.4	
Hallway	9043296	5/1/2018	6:49 PM	5/3/2018	8:18 PM	< 0.3	Blank
Hallway	9043297	5/1/2018	6:49 PM	5/3/2018	8:18 PM	< 0.3	Blank
Hallway	9043298	5/1/2018	6:49 PM	5/3/2018	8:19 PM	< 0.3	Blank
Hallway	9043299	5/1/2018	6:49 PM	5/3/2018	8:19 PM	< 0.3	Blank

RPD - Relative Percent Difference = difference divided by the average of simultaneous results times 100. Results less than 4.0 pCi/L shall agree with a RPD of less than 67 percent. Results greater than 4.0 pCi/l shall agree with a RDP of less than 36 percent.
The EPA and IEMA recommended radon action level is 4.0 pCi/L.

6.0 CONCLUSIONS

Carnow, Conibear, & Assoc., Ltd. (Carnow Conibear) was contracted by East Aurora School District 131 to perform a radon survey at the O'Donnell Elementary School located at 1640 Reckinger Road in Aurora, Illinois. The survey was initiated on May 1, 2018 and completed on May 3, 2018 by Nicole Bennett, an Illinois Emergency Management Agency (IEMA) licensed Radon Measurement Professional (License No. RNI2016213). The scope of work included short-term (two to four day) radon measurements in frequently occupied rooms with substantial ground contact. The radon survey was performed in following the IEMA and the USEPA testing protocols for commercial and school radon measurements, the radon device manufacturer's recommendations, and the Carnow Conibear Quality Assurance Plan.

Radon measurement results ranged from less than (<) 0.3 to 1.4 pCi/L. The radon measurement results indicate radon concentrations for areas tested were below the EPA and IEMA recommended action level of 4.0 pCi/L during the time of the test. The average indoor radon concentrations are 1.3 pCi/L nationwide. The average outdoor radon concentration is 0.4 pCi/L.

Based on the radon measurement results Carnow Conibear recommends the following:

- A routine follow-up radon measurement survey every three (3) years, preferably at different seasonal times of the year. Follow-up radon testing is also recommended in locations with invalid test results.

- Additional radon testing if significant changes are made to the building's structural or mechanical components.

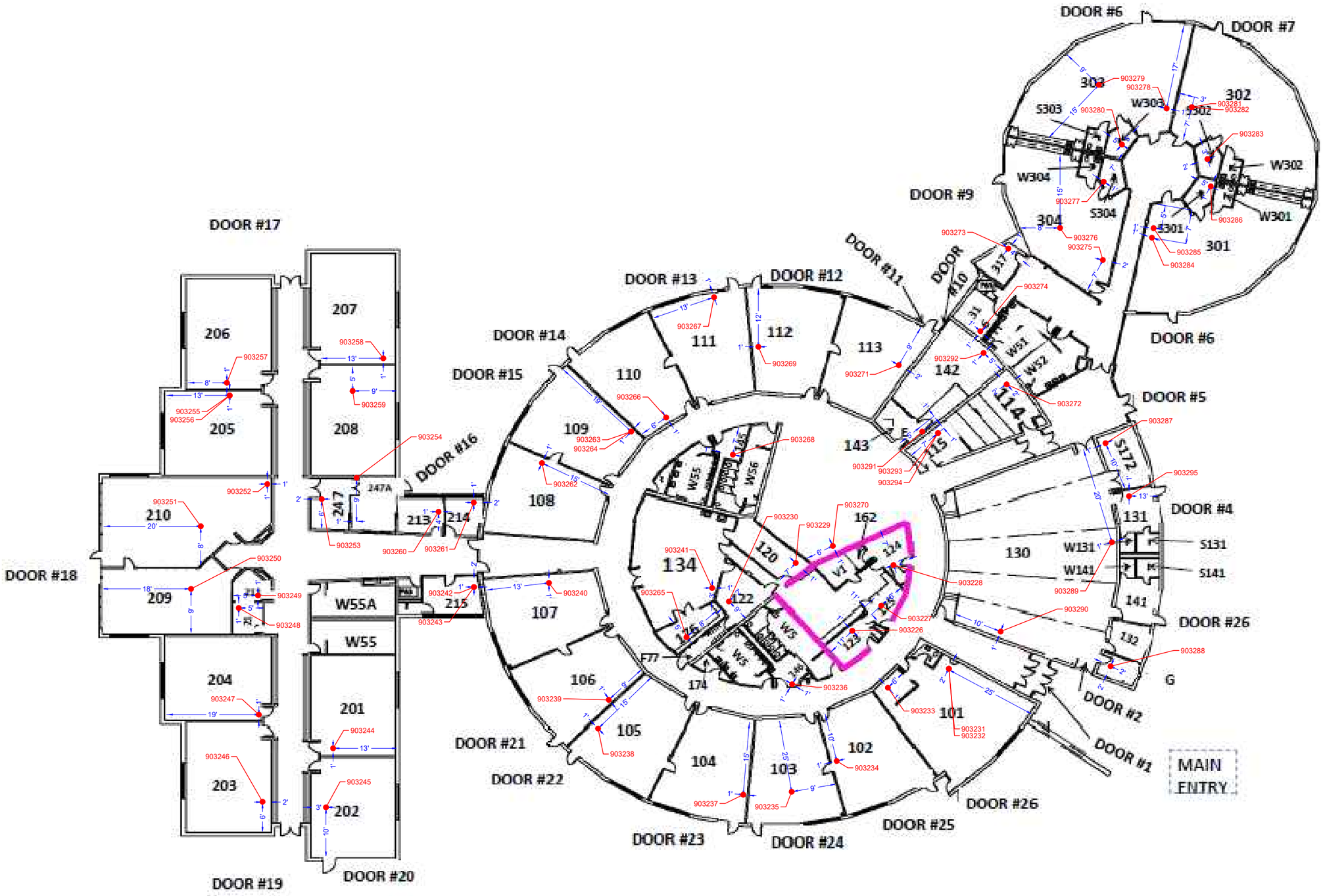
7.0 LIMITATIONS AND CONDITIONS

The information contained in this report was prepared for the exclusive use and reliance of East Aurora School District 131 and Carnow Conibear. This information is based on the specific parameters of the scope of work for this project and the regulations in force at the time of the report.

Carnow Conibear has applied prevailing industry standards and reasonable judgment and effort within the scope of work, while conducting the radon measurement survey. The standards, judgment, and effort used by Carnow Conibear personnel to investigate, assess, and determine the presence of potential environmental hazards and liabilities associated with the radon survey at the O'Donnell Elementary School, Aurora, Illinois are consistent with requirements outlined in federal and state guidelines. Carnow Conibear makes no warranty, express or implied, that the findings and interpretations in this report are a complete representation of the environmental hazards and liabilities, associated with the O'Donnell Elementary School, Aurora, Illinois.

APPENDIX A

Floor Plans – Radon Sampling Locations



1 RADON SAMPLE LOCATIONS
GROUND FLOOR PLAN

NOT TO SCALE

TRUE NORTH

TESTED BY:
Derek Lantry
IEMA License #: RNI2004213

DRAWN BY:
J. Kalingasan

CHECKED BY:
D. Lantry

CLIENT:
East Aurora Public School District 131
417 Fifth Street
Aurora, Illinois, 60505

LEGEND:
Approximate location of activated charcoal radon measurement device
4482418 Radon measurement device serial number

0 10' 20'

SHEET TITLE:
Radon Testing Locations at
Mabel O'Donnell Elementary School
1640 Reckinger Road
Aurora, Illinois 60505

Carnow, Conibear & Assoc., Ltd.
Environmental Consulting Services
600 W. Van Buren St., Suite 500, Chicago, IL 60607
t: 312.782.4486 f: 312.782.5145
www.ccaltd.com

CARNOW CONIBEAR

CCA PROJECT NO:
A146000137

SURVEY DATE:
4/30/2018 to 5/3/2018

SHEET NO:
Rn-1

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APPENDIX B

Laboratory Analysis Report

May 10, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SCHOOL
O&APOS;DONNELL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9043289	GYM	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043290	GYM	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043298	HALL	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043299	HALL	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043296	HALL	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043297	HALL	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043270	MULTI PURPOSE ROOM	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043231	ROOM 101	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043232	ROOM 101	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043233	ROOM 101 CLOSET	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043234	ROOM 102	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043235	ROOM 103	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043237	ROOM 104	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043238	ROOM 105	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043239	ROOM 106	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043240	ROOM 107	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043262	ROOM 108	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043263	ROOM 109	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043264	ROOM 109	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043266	ROOM 110	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043267	ROOM 111	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043269	ROOM 112	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	0.5 ± 0.3	2018-05-08
9043271	ROOM 113	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043272	ROOM 114	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043293	ROOM 115	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043294	ROOM 115	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043229	ROOM 120	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043230	ROOM 122	2018-05-01 @ 5:00 pm	2018-05-03 @ 7:00 pm	< 0.3	2018-05-08
9043226	ROOM 123A	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043228	ROOM 124A	2018-05-01 @ 5:00 pm	2018-05-03 @ 7:00 pm	< 0.3	2018-05-08
9043227	ROOM 125	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043295	ROOM 131	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	1.4 ± 0.4	2018-05-08
9043241	ROOM 134	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043236	ROOM 146	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	1.2 ± 0.4	2018-05-08
9043244	ROOM 201	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043245	ROOM 202	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043246	ROOM 203	2018-05-01 @ 6:00 pm	2018-05-03 @ 7:00 pm	< 0.3	2018-05-08

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

May 10, 2018

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

SCHOOL
O&APOS;DONNELL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9043247	ROOM 204	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043256	ROOM 205	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043255	ROOM 205	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043257	ROOM 206	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043258	ROOM 207	2018-05-01 @ 6:00 pm	2018-05-03 @ 7:00 pm	< 0.3	2018-05-08
9043259	ROOM 208	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043250	ROOM 209	2018-05-01 @ 6:00 pm	2018-05-03 @ 7:00 pm	< 0.3	2018-05-08
9043252	ROOM 210	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	0.5 ± 0.4	2018-05-08
9043249	ROOM 211	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043248	ROOM 212	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	0.6 ± 0.4	2018-05-08
9043260	ROOM 213	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	1.4 ± 0.4	2018-05-08
9043261	ROOM 214	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	0.5 ± 0.3	2018-05-08
9043242	ROOM 215	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043243	ROOM 215	2018-05-01 @ 5:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043253	ROOM 247	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043254	ROOM 247A SPRINKLER	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043285	ROOM 301	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043284	ROOM 301	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043282	ROOM 302	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043281	ROOM 302	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043279	ROOM 303	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043278	ROOM 303	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043275	ROOM 304	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043276	ROOM 304	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043274	ROOM 316	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043273	ROOM 317	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043291	ROOM C143 BOILER	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043292	ROOM C143 BOILER (FURTHER BACK)	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043268	ROOM C145	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	0.6 ± 0.3	2018-05-08
9043287	ROOM S172	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	0.5 ± 0.4	2018-05-08
9043288	ROOM S173	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043265	ROOM S176	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043286	ROOM S301	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043283	ROOM S302	2018-05-01 @ 7:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043280	ROOM S303	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08
9043277	ROOM S304	2018-05-01 @ 6:00 pm	2018-05-03 @ 8:00 pm	< 0.3	2018-05-08

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APPENDIX C

Radon Measurement Professional License

Bruce Rauner
Governor

State of Illinois

James K. Joseph
Director

IEMA Division of Nuclear Safety

Pursuant to the Radon Industry Licensing Act, 420 ILCS 44 et seq. and 32 Illinois Adminstrative Code 422, Licensing of Radon Detection and Mitigation Services, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued.

This is to certify that **Nicole Bennett**

License Number **RNI2016213**

has met the requirements for **Radon Measurement Professional**

Issued - Expires **05/18/2016 - 05/31/2021**

Limited to Radon measurements of residential real estate, home environment, school and commercial buildings only.

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AUG. 26TH 1818

161391001

Patrick I. Daniels, Radon Program