SCHOOL/LARGE BUILDING RADON TESTING

North Butler Elementary School
513 Birch Street
Allison, Iowa 50602

Prepared for:

North Butler Community School District
201 N 5th Street
Greene, Iowa 50636

Prepared by:

Eocene Environmental Group, Inc.
8951 Windsor Parkway
Johnston, Iowa 50131

Report date:

January 12, 2026

School/Large Building Radon Testing

North Butler Elementary School
513 Birch Street
Allison, Iowa 50602

Inspected/Prepared by:

Leon Johnson
Project Manager
Radon Measurement Specialist: RNTST10189

Reviewed by:

Tyler Silverthorn
Project Manager
Radon Measurement Specialist: RNTST10187

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APPENDICES

1.0 EXECUTIVE SUMMARY

Eocene Environmental Group, Inc. (Eocene), completed Radon Testing (Testing) on December 8-11, 2025, within the school located at 513 Birch Street Allison, Iowa 50602 (Property). The purpose of the Testing was to provide a professional opinion of a structure's radon levels. Test results and conditions within the building are limited to the testing period identified in this report. This report is intended to assist North Butler Community School District (CSD) (Client) in facilitating radon mitigation activities, if needed.

Radon Testing Results

Average radon concentrations were identified below the EPA action level of 4.0 pCi/L but above 2.0 pCi/L in six of the forty-one (41) testing locations within the Property. While not required, radon mitigation activities should be considered at these levels to lower the radon concentration in these areas. It should be noted that the World Health Organization (WHO) recommends limiting long-term exposures to less than 2.7 pCi/L. Retesting is required every 5 years or in conjunction with any sale of the building. See Table 2 for testing locations.

Average radon concentrations were identified below the 2.0 pCi/L in thirty-five (35) of the 41 testing locations within the Property. Radon mitigation activities are not recommended these levels. Retesting is required every 5 years or in conjunction with any sale of the building. See Table 3 for testing locations.

1.1 Recommendations

While not required, mitigation is recommended to be considered for testing locations identified in Table 2, which were identified above 2.0 pCi/L, but under 4.0 pCi/L. If mitigation is to be conducted, Eocene recommends utilizing an Iowa Certified Mitigation Specialist.

This report is designed to aid the building owner, architect, construction manager, general contractor, and/or mitigation specialist in locating areas with elevated concentrations of radon. This report is not to be used as a mitigation specification, as it does not contain needed components to serve as such.

2.0 INTRODUCTION

A. Property Information

Location:

North Butler Elementary School
513 Birch Street
Allison, Iowa 50602

Contact Person:

Bryan Boysen
North Butler CSD
201 N 5th Street
Greene, Iowa 50636

B. Personnel

QC/QA: Tyler Silverthorn	Radon Measurement Specialist	RNTST10187
Inspector: Leon Johnson	Radon Measurement Specialist	RNTST10189

C. Sampling Plan

The extended testing protocol was used for the Testing. One, short-term, QuickScreen, charcoal device was placed at each testing location in all occupied ground contact rooms. Devices were set for a minimum of 48 hours after closed building conditions were achieved.

Five duplicate samples were collected to meet the minimum requirement of 10% duplicate samples required for sampling. An additional two duplicate samples were collected to average with initial sample locations from various rooms determined by the measurement specialist.

Three blank samples were collected to meet the minimum requirement of 5% blank samples required for sampling.

Three spike samples were collected to meet the minimum requirement of 3% spike samples required for sampling. Devices intended to be used as spike samples were submitted to Bowser-Morner to be spiked with a known amount of radon in their Radon Chamber.

Analytical results for blank and spike samples are located in complete analytical results found in Appendix B.

All devices were submitted and analyzed by an Iowa Certified Radon Laboratory (RNLAB10006).

D. Regulation Review

The testing was conducted in accordance with EPA, American National Standards Institute (ANSI), American Association of Radon Scientists and Technologists (AARSTF), and Iowa Administrative Code (IAC) 641, Chapter 43.

A mitigation decision to fix the building is recommended when the average radon concentration within a room is greater than or equal to 4.0 pCi/L. Mitigation should be considered when the average radon concentration within a room is greater than equal to 2.0 pCi/L and less than 4.0 pCi/L.

3.0 PROPERTY DESCRIPTION

The Property consists of one-story school building constructed in 1985. The existing school building is located at 513 Birch Street, Allison, Iowa 50602 (Property). Required closed building test conditions were observed at deployment and retrieval.

4.0 INSPECTION LIMITATIONS

Radon testing results identified in this report are limited to the time of the test conducted, for the test period that was conducted, and to the conditions that were present at the time the samples were collected, as indicated in this report.

This tested structure should be retested in the following cases:

1. If the structure was unoccupied during the test, the structure should be retested after occupancy;
2. If the structure is located in an area of karst or glacial moraine geology, it should be retested over a 12-month period;
3. If occupied by a new owner;
4. If the initial test was less than 4 pCi/L, retest every very five years after initial testing;
5. If a new addition is added;
6. If an alteration is made that could change the structure's ventilation patterns;
7. If major cracks or penetrations occur in the structure's foundation walls or slab;
8. If significant nearby construction blasting or earthquakes occur;
9. If changes are made or happen to an installed mitigation system; or
10. If a ground-contacted area is occupied that was not previously tested.

5.0 INSPECTION ACTIVITIES

5.1 Radon Testing

An Iowa certified Radon Measurement Specialist from Eocene collected 41 samples (plus seven duplicates, three blanks, and three spike samples) on December 8-11, 2025. The samples were collected from occupied areas located throughout the Property. The tables below identify the areas that were tested and the associated average results in pCi/L. A complete list of analytical laboratory results are provided in Appendix B.

Table 1 – Radon Testing Results Below 2.0 pCi/L

No average radon concentrations were identified above the US EPA action level of 4.0 pCi/L within the Property.

Table 2 – Radon Testing Results Between 2.0 pCi/L and 4.0 pCi/L

Kit Numbers	Room	Average Result (pCi/L)	Mitigation Decision
RK157992	143	2.2	Consider Fixing
RK158030	205	2.5	Consider Fixing
RK158011	207	2.0	Consider Fixing
RK158035	208	2.4	Consider Fixing
RK158069	209	2.3	Consider Fixing
RK158006 RK158045	211	2.0	Consider Fixing

Average radon concentrations were identified below the EPA action level of 4.0 pCi/L but above 2.0 pCi/L in six of the 41 testing locations within the Property. While not required, radon mitigation activities should be considered at these levels to lower the radon concentration in these areas. It should be noted that the World Health Organization (WHO) recommends limiting long-term exposures to less than 2.7 pCi/L. Retesting is required every 5 years or in conjunction with any sale of the building.

Table 3 – Radon Testing Results Below 2.0 pCi/L

Kit Numbers	Room	Average Result (pCi/L)	Mitigation Decision
RK158031	IT	1.4	Retest in 5 Years
RK158021	104	0.7	Retest in 5 Years
RK157982	105	<0.6	Retest in 5 Years
RK157987	106	<0.4	Retest in 5 Years
RK158012	107	<0.8	Retest in 5 Years
RK158008 RK158046	108	0.8	Retest in 5 Years
RK158044	111	<0.7	Retest in 5 Years
RK155779	112	<0.7	Retest in 5 Years
RK158048 RK157983	113	1.9	Retest in 5 Years
RK158004	121	0.9	Retest in 5 Years
RK157977	122	<0.6	Retest in 5 Years
RK157991	123	0.6	Retest in 5 Years
RK157979	130	<0.4	Retest in 5 Years
RK157970	133	<0.8	Retest in 5 Years
RK158015 RK158049	135	<0.8	Retest in 5 Years
RK157986 RK157974	137	<0.9	Retest in 5 Years
RK158000	138	1.1	Retest in 5 Years
RK158003	139	0.7	Retest in 5 Years
RK158029 RK158005	141	1.5	Retest in 5 Years
RK158032	144	1.6	Retest in 5 Years
RK158056	147	<0.8	Retest in 5 Years
RK158022 RK158023	148	<0.8	Retest in 5 Years
RK157996	201	1.7	Retest in 5 Years
RK158019	202	1.6	Retest in 5 Years
RK158047	204	1.7	Retest in 5 Years
RK158053	206	1.6	Retest in 5 Years
RK158050	210	<0.6	Retest in 5 Years
RK158037	212	1.2	Retest in 5 Years
RK158016	213	1.4	Retest in 5 Years
RK158018	214	1.8	Retest in 5 Years
RK158038	215	0.9	Retest in 5 Years
RK158033	216	<0.6	Retest in 5 Years
RK158024	217	1.2	Retest in 5 Years
RK155837	Kitchen	1.2	Retest in 5 Years
RK158052	125	0.7	Retest in 5 Years

Average radon concentrations were identified below the 2.0 pCi/L in 35 of the 41 testing locations within the Property. Radon mitigation activities are not recommended at these levels and retesting is required every 5 years or in conjunction with any sale of the building.

5.2 Quality Control

Quality Control samples were collected and then submitted and analyzed by the Alpha Energy laboratory. Quality control samples were made up of duplicates, blanks, and spikes. A minimum of Seven duplicates were collected due to the extended testing protocol utilized. Three field blanks were collected and submitted to the lab. Three spike samples were sent to the Bowser-Morner Radon Chamber and subsequently submitted to the laboratory for analysis. All quality control samples were within acceptable limits and are included in the complete analytical results in Appendix B.

Radon is the second leading cause of lung cancer, after smoking. The U.S. Environmental Protection Agency (EPA) and the Surgeon General strongly recommend taking further action when the home's radon test results are 4.0 pCi/l (picocuries per liter of air) or greater. Radon levels less than 4.0 pCi/l still pose some risk and, in many cases, may be reduced. The annual national average indoor radon level is about 1.3 pCi/l while annual outdoor radon levels average 0.4 pCi/l. The higher a home's or structure's radon level, the greater the health risk. Smokers, former smokers, and individuals with a family history of lung cancer are at especially high risk. An Iowa credentialed mitigation specialist should be used to fix radon problems. Contact the Iowa Department of Health and Human Services Radon Program at (515) 281-4928 or at **www.HHS.iowa.gov/radon/fix** to obtain information, including a list of State-credentialed radon mitigation specialists who can fix or can help you develop a plan for fixing the radon problem.

There can be uncertainty with any radon measurement due to statistical variations and other factors such as daily and seasonal variations in radon concentrations due to changes in the weather and operation of the dwelling as well as possible interference with the necessary test conditions that may or may not influence the results.

5.3 Testing Conditions

Table 4, located below, identifies indoor/outdoor conditions during the testing as compared to the annual averages for the area. Fluctuations in local weather during the testing may impact indoor radon concentrations.

Table 2 – Testing Conditions

Outdoor Temperatures	**Averages**	**Annual**		**During the Test**
		54º		**33°**
Operating Conditions	Heating Conditions	66%	Compared To	100%
	Cooling Conditions	16%		0%
	Mixed Conditions	16%		0%
Prevailing Operating Conditions	Averages	Heating Conditions	Compared To	Heating Conditions
Condition Less Likely to Inhibit Characterization of a Radon Hazard		Air Distribution Systems Active		Air Distribution Systems Intermittent
			Indoor Temperature	68º

6.0 CONCLUSIONS / RECOMMENDATIONS

The following conclusions and recommendations are summarized as follows:

- While not required, Eocene recommends mitigation be considered in the locations identified in Table 2. If mitigation is to be conducted, Eocene recommends utilizing an Iowa Certified Mitigation Specialist.

This report is designed to aid the building owner, architect, construction manager, general contractor, and/or mitigation specialist in locating areas with elevated concentrations of radon. This report is not to be used as a mitigation specification, as it does not contain needed components to serve as such.

7.0 CONDITIONS & LIMITATIONS

Eocene has performed the tasks contained within this report in a thorough and professional manner consistent with commonly accepted standard industry practices. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the Property. Eocene cannot guarantee, and does not warrant, that this report has identified all adverse environmental factors and/or conditions affecting the Property on the date of the inspection. Eocene cannot and will not warrant that the Inspection that was requested will satisfy the dictates of, or provide, a legal defense in connection with any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards. This report is not a bidding document or project specification as it does not contain the necessary components. This report has been prepared on behalf of and exclusively for use of North Butler CSD, for specific application to their project as discussed. Contractors, consultants or other third parties reviewing this report must draw their own conclusions regarding data contained within the report, further investigation or required mitigation.

Eocene Environmental Group, Inc. (Eocene) cannot guarantee the necessary conditions were maintained during the test period. There can be uncertainty with any radon measurement due to statistical variations and other factors such as changes in the weather and operation of the dwelling. While our radon measurement technicians and we make every effort to maintain the highest possible quality control and include checks and verification steps in our procedures, we make NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, for the consequences of erroneous test results. Eocene nor its employees or agents shall not be liable under any claim, charge or demand, whether in contract, tort, or otherwise, for any and all loss, cost, charge, claim, demand, fee, or expense of any nature or kind arising out of, connected with, resulting from, or sustained as a result of any radon test.

It is a violation of law for anyone other than the certified Radon Measurement Specialist signing it to alter this report. This report may be supplemented with additional information, so long as any addendum is signed by a Radon Measurement Specialist certified according to Iowa Administrative Code 641, Chapter 43.

APPENDIX A

Qualifications

Bureau of Radiological Health
Radon Measurement Specialist Certification

Tyler Silverthorn

Certification #: RNTST10187

Has complied with the requirements and is hereby authorized to perform radon testing pursuant to Iowa code 136B and 641 Iowa Administrative Code Chapter 43.

Approved Testing Methods:
CC-Activated Charcoal Adsorption
CR-Continuous Radon Monitor

Expiration: December 31, 2026

CEU Due Date: December 31, 2026

Radiological Health | Iowa Department of Health and Human Services |Lucas State Office Building | Des Moines, IA 50319

Fold here to mail - Cut here to display

Tyler Silverthorn
600 4TH STREET SUITE 808
SIOUX CITY, IA 51101

Fold here to mail

Bureau of Radiological Health
Radon Measurement Specialist Certification

Leon Johnson

Certification #: RNTST10189

Has complied with the requirements and is hereby authorized to perform radon testing pursuant to Iowa code 136B and 641 Iowa Administrative Code Chapter 43.

Approved Testing Methods:
CC-Activated Charcoal Adsorption
CR-Continuous Radon Monitor

Expiration: February 28, 2027

CEU Due Date: February 28, 2027

Radiological Health | Iowa Department of Health and Human Services |Lucas State Office Building | Des Moines, IA 50319

Fold here to mail - Cut here to display

Leon Johnson
8951 WINDSOR PARKWAY
JOHNSTON, IA 50131

Fold here to mail

APPENDIX B

Laboratory Reports /
Chain of Custody Documentation

radonova
The global leader in radon measurement

REPORT NUMBER
8968574:1

REPORT DATE
12/19/2025

REPORT PAGE
1 of 8

PRINT DATE
12/19/2025

OWN ID
N/A

BY
Eocene Environmental Group

"Eocene Environmental Group, Inc"
Leon Johnson
5930 Grand Avenue
West Des Moines IA

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **12/15/2025**.
They were measured **12/15/2025**.

No person has signed the record card and verified that the instructions have been followed.

Property data and address

MEASURE SITE ADDRESS
20450821-North Butler CSD Elementary
513 Birch Street
Allison IA 50602

BUILDING ID
Elementary School

TYPE OF BUILDING:	BUILDING YEAR:	VENTILATION TYPE:	FOUNDATION TYPE:	PURPOSE OF TEST:
School / Child Care Facility	*1985*	*Forced air*	*Slab on grade*	*Primary Screening*

TEST CONDITIONS:	LICENSE NO - DEPLOYED BY:	LICENSE NO - RETRIEVED BY:	SCHOOL CODE (REQUIRED FOR NJ):

Test results

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	FLOOR	RADON RESULT
RK158031 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*IT*		1.4 ± 0.5 pCi/L
RK158021 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*104*		0.7 ± 0.5 pCi/L
RK157982 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*105*		< 0.6 pCi/L
RK157987 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*106*		< 0.4 pCi/L

Comment to the results

Sandra Fisher (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

RADONOVA INC.
1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

"Eocene Environmental Group, Inc"
Leon Johnson
5930 Grand Avenue
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Elementary School

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	FLOOR	RADON RESULT
RK158012 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*107*		< 0.8 pCi/L
RK158008 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*108*		0.6 ± 0.4 pCi/L
RK158046 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*108*		0.9 ± 0.4 pCi/L
RK158044 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*111*		< 0.7 pCi/L
RK155779 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*112*		< 0.7 pCi/L
RK158048 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*113*		2.1 ± 0.6 pCi/L
RK157983 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*113*		1.7 ± 0.5 pCi/L
RK158004 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*121*		0.9 ± 0.5 pCi/L
RK157977 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*122*		< 0.6 pCi/L

Comment to the results

Sandra Fisher (Electronically signed)

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RK157991 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*123*		0.6 ± 0.5 pCi/L
RK157979 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*130*		< 0.4 pCi/L
RK157970 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*133*		< 0.8 pCi/L
RK158015 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*135*		< 0.8 pCi/L
RK158049 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*135*		< 0.8 pCi/L
RK157986 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*137*		< 0.9 pCi/L
RK157974 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*137*		< 0.9 pCi/L
RK158000 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*138*		1.1 ± 0.5 pCi/L
RK158003 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*139*		0.7 ± 0.5 pCi/L

Comment to the results

Sandra Fisher (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

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DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	FLOOR	RADON RESULT
RK158029 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*141*		1.2 ± 0.8 pCi/L
RK158005 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*141*		1.8 ± 0.7 pCi/L
RK157992 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*143*		2.2 ± 0.7 pCi/L
RK158032 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*144*		1.6 ± 0.6 pCi/L
RK158056 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*147*		< 0.8 pCi/L
RK158022 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*148*		< 0.9 pCi/L
RK158023 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*148*		< 0.6 pCi/L
RK157996 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*201*		1.7 ± 0.5 pCi/L
RK158019 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*202*		1.6 ± 0.6 pCi/L

Comment to the results

Sandra Fisher (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

RADONOVA INC.
1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
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RK158047 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*204*		1.7 ± 0.6 pCi/L
RK158030 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*205*		2.5 ± 0.6 pCi/L
RK158053 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*206*		1.6 ± 0.7 pCi/L
RK158011 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*207*		2.0 ± 0.6 pCi/L
RK158035 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*208*		2.4 ± 0.6 pCi/L
RK158069 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*209*		2.3 ± 0.7 pCi/L
RK158050 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*210*		< 0.6 pCi/L
RK158006 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*211*		2.5 ± 0.6 pCi/L
RK158045 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*211*		1.4 ± 0.6 pCi/L

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RK158037 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*212*		1.2 ± 0.6 pCi/L
RK158016 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*213*		1.4 ± 0.5 pCi/L
RK158018 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*214*		1.8 ± 0.5 pCi/L
RK158038 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*215*		0.9 ± 0.5 pCi/L
RK158033 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*216*		< 0.6 pCi/L
RK158024 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*217*		1.2 ± 0.7 pCi/L
RK155837 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*KT*		1.2 ± 0.6 pCi/L
RK158052 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*125*		0.7 ± 0.5 pCi/L
RK158010 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*BLANK*		0.8 ± 0.7 pCi/L

Comment to the results

Sandra Fisher (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

RADONOVA INC.
1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

"Eocene Environmental Group, Inc"
Leon Johnson
5930 Grand Avenue
West Des Moines IA

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **12/15/2025**.
They were measured **12/15/2025**.

No person has signed the record card and verified that the instructions have been followed.

Property data and address

MEASURE SITE ADDRESS
20450821-North Butler CSD Elementary
513 Birch Street
Allison IA 50602

BUILDING ID
Elementary School

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	FLOOR	RADON RESULT
RK158013 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*BLANK*		< 0.8 pCi/L
RK158017 [QuickScreen]	*12/08/2025 10:00 AM – 12/11/2025 10:00 AM*	*BLANK*		< 0.9 pCi/L

Comment to the results

Sandra Fisher (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

RADONOVA INC.
1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

Measurement method: Activated Charcoal Adsorption

For this method using the QuickScreen detector, the airtight container with activated charcoal is opened in the area to be sampled and radon in the air adsorbs onto the charcoal granules. At the end of the sampling period, the container is sealed and may be sent to a laboratory for analysis. The gamma decay from the radon adsorbed to the charcoal is counted on a scintillation detector and a calculation based on calibration information is used to calculate the radon concentration at the sample site.

Measured radon concentrations

For each detector, the measured value of the radon concentration is provided. For each value an uncertainty associated with the measurement to a 95% confidence level is also provided. For example a measurement result of 4.0 ± 0.5 pCi/L means that the radon concentration is most likely contained in the range 3.5 - 4.5 pCi/L. If the start or end date of the measurement has not been provided, the radon concentration cannot be calculated. In such cases, the total exposure in pCi*days/L will be reported. The reported measured values are related to the detectors as received by Radonova Laboratories. Detector deployment is not performed by Radonova Laboratories. Measurement information such as monitoring period (dates) and placement location is provided to Radonova Laboratories by the end user. The presented result applies only to the sample tested as received by the laboratory.

Codes on non-reportable detectors

DNR Not Reported – Detector Not Returned
ERR Not Reported – See comment

Measurement method versions used when the report was created

ANSI/AARST MA-MFLB-2023, Protocol for Measurements of Radon in Multifamily, School, Commercial and Mixed-Use Buildings

Radon measurements in Multifamily Buildings, Schools and Large Buildings

The United States Environmental Protection Agency (EPA) recommends remediation if the results of one long-term test or the average of two short-term tests conducted in an occupied room are 4.0 pCi/L or higher. The average yearly residential indoor radon level in the US is estimated to be around 1.3 pCi/L. Long-term tests are conducted for more than 90 days. Short-term tests are conducted between 2 and 90 days and should be performed under closed building conditions.
If an initial short-term test result is less than 4 pCi/L, a follow-up measurement is probably not needed.
If an initial short-term test result is between 4 pCi/L and 8 pCi/L, a long-term or a short-term follow-up measurement is recommended.
If an initial short-term test result is greater than 8 pCi/L, a short term follow-up measurement is recommended in order to get a fast result.

More information about radon measurements and mitigation can be found in the ANSI/AARST publications:

- ANSI/AARST Protocol for Conducting Measurements of Radon and Radon-Decay Products in Schools and Large Buildings.
- ANSI/AARST Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings.
- ANSI/AARST Radon Mitigation Standards for Schools and Large Buildings.
- ANSI/AARST Radon Mitigation Standards for Multifamily Buildings.

For more information about the interpretation of your test results or about other radon related issues we suggest contacting your state radon office.

Signature on the report

With the signature on the report, the Measurement specialist at Radonova Laboratories certifies that the quality control procedures follows the guidance in accordance with the AARST/ANSI Measurement Protocols. Measurement information displayed in italics on report has been provided by the customer.

Certification no:

101132-AL, 107830-RT, RNLAB10006, NY ELAP ID: 11430

RADONOVA INC.
1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

radonova
The global leader in radon measurement

REPORT NUMBER
9150371:1

REPORT DATE
01/08/2026

REPORT PAGE
1 of 2

PRINT DATE
01/08/2026

OWN ID
N/A

BY
Eocene Environmental Group

"Eocene Environmental Group, Inc"
Leon Johnson
5930 Grand Avenue
West Des Moines IA

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **12/09/2025**.
They were measured **12/09/2025**.

No person has signed the record card and verified that the instructions have been followed.

Property data and address

MEASURE SITE ADDRESS
20450821-North Butler CSD Elementary
513 Birch Street
Allison IA 50602

BUILDING ID
Elementary School

TYPE OF BUILDING:	BUILDING YEAR:	VENTILATION TYPE:	FOUNDATION TYPE:	PURPOSE OF TEST:
School / Child Care Facility		*Forced air*	*Slab on grade*	*Primary Screening*

TEST CONDITIONS:	LICENSE NO - DEPLOYED BY:	LICENSE NO - RETRIEVED BY:	SCHOOL CODE (REQUIRED FOR NJ):

Test results

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	FLOOR	RADON RESULT
RK158065 [QuickScreen]	*12/06/2025 08:44 AM – 12/08/2025 08:44 AM*			**25.1 ± 0.6 pCi/L**
RK158066 [QuickScreen]	*12/06/2025 08:44 AM – 12/08/2025 08:44 AM*			**25.2 ± 0.6 pCi/L**
RK158067 [QuickScreen]	*12/06/2025 08:44 AM – 12/08/2025 08:44 AM*			**24.3 ± 0.6 pCi/L**

Comment to the results

Sandra Fisher (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

RADONOVA INC.
1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

Measurement method: Activated Charcoal Adsorption

For this method using the QuickScreen detector, the airtight container with activated charcoal is opened in the area to be sampled and radon in the air adsorbs onto the charcoal granules. At the end of the sampling period, the container is sealed and may be sent to a laboratory for analysis. The gamma decay from the radon adsorbed to the charcoal is counted on a scintillation detector and a calculation based on calibration information is used to calculate the radon concentration at the sample site.

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Codes on non-reportable detectors

DNR Not Reported – Detector Not Returned
ERR Not Reported – See comment

Measurement method versions used when the report was created

ANSI/AARST MA-MFLB-2023, Protocol for Measurements of Radon in Multifamily, School, Commercial and Mixed-Use Buildings

Radon measurements in Multifamily Buildings, Schools and Large Buildings

The United States Environmental Protection Agency (EPA) recommends remediation if the results of one long-term test or the average of two short-term tests conducted in an occupied room are 4.0 pCi/L or higher. The average yearly residential indoor radon level in the US is estimated to be around 1.3 pCi/L. Long-term tests are conducted for more than 90 days. Short-term tests are conducted between 2 and 90 days and should be performed under closed building conditions.
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If an initial short-term test result is between 4 pCi/L and 8 pCi/L, a long-term or a short-term follow-up measurement is recommended.
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- ANSI/AARST Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings.
- ANSI/AARST Radon Mitigation Standards for Schools and Large Buildings.
- ANSI/AARST Radon Mitigation Standards for Multifamily Buildings.

For more information about the interpretation of your test results or about other radon related issues we suggest contacting your state radon office.

Signature on the report

With the signature on the report, the Measurement specialist at Radonova Laboratories certifies that the quality control procedures follows the guidance in accordance with the AARST/ANSI Measurement Protocols. Measurement information displayed in italics on report has been provided by the customer.

Certification no:

101132-AL, 107830-RT, RNLAB10006, NY ELAP ID: 11430

RADONOVA INC.
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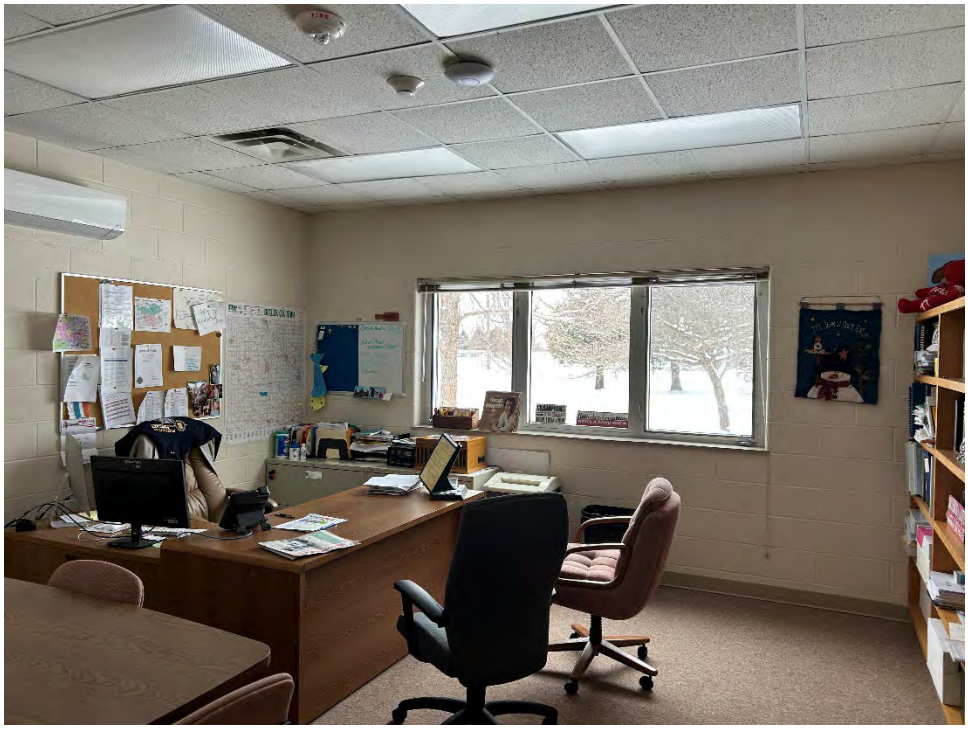
LOMBARD, IL 60148
331.814.2200, help@radonova.com

APPENDIX C

Photographs

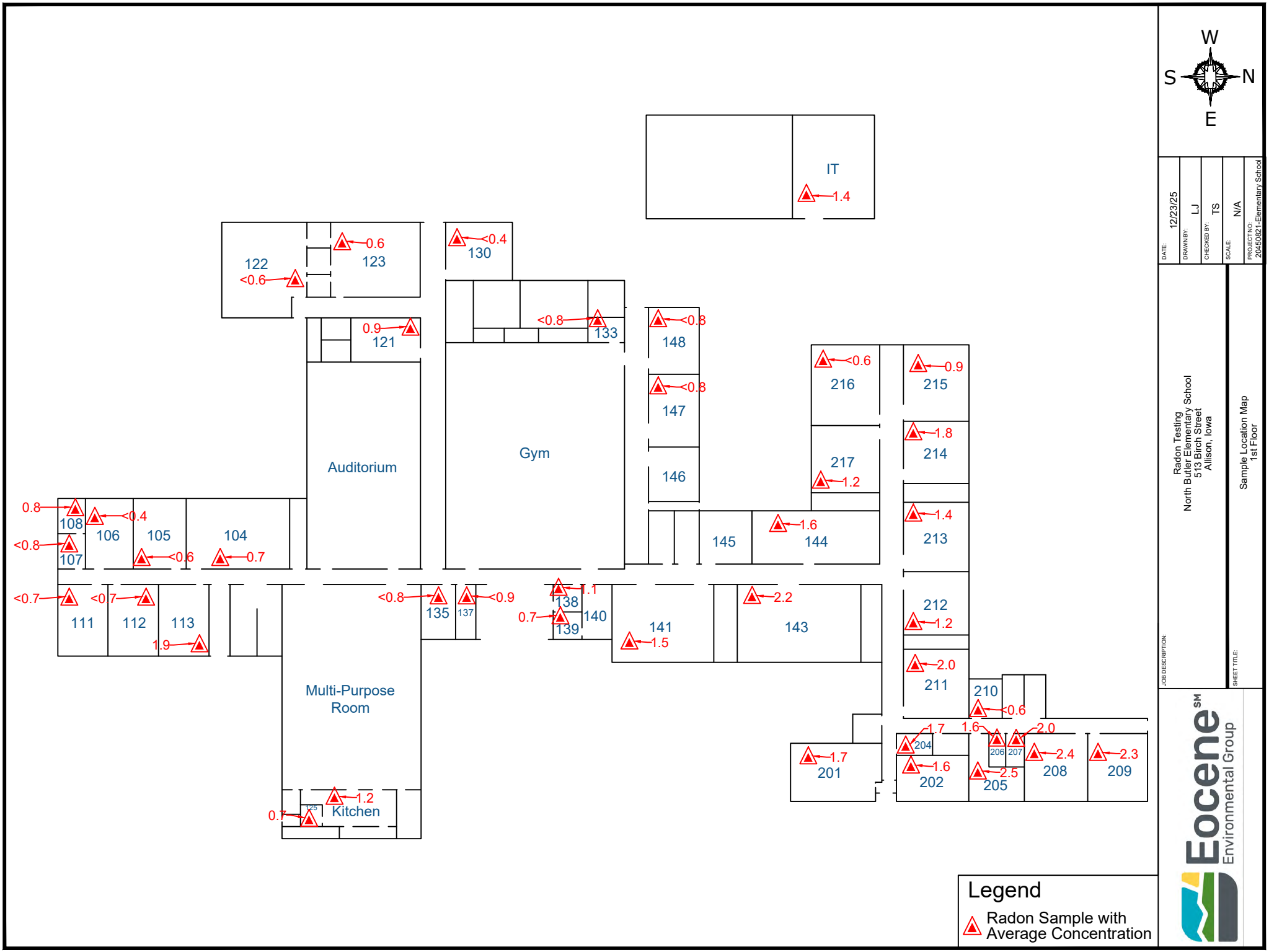
Project Name	SCHOOL/LARGE BUILDING RADON TESTING
North Butler CSD Date: 12/8/2025 Photographer: Leon Johnson	
Description: General Visual Conditions of Testing Locations.	
Photo #1	
North Butler CSD Date: 12/8/2025 Photographer: Leon Johnson	
Description: General Visual Conditions of Testing Locations.	
Photo #2	

Project Name	SCHOOL/LARGE BUILDING RADON TESTING
North Butler CSD Date: 12/8/2025 Photographer: Leon Johnson	
Description: General Visual Conditions of Testing Locations.	
Photo #3	
North Butler CSD Date: 12/8/2025 Photographer: Leon Johnson	
Description: General Visual Conditions of Testing Locations.	
Photo #4	

Project Name	**SCHOOL/LARGE BUILDING RADON TESTING**
North Butler CSD Date: 12/8/2025 Photographer: Leon Johnson	
Description: General Visual Conditions of Testing Locations.	
Photo #5	

APPENDIX D

Sample Location Map


W
S
N
E
IT
1.4
122
<0.6
0.6
123
130
<0.4
<0.8
133
0.9
121
148
<0.8
147
<0.8
146
Auditorium
Gym
216
<0.6
215
0.9
217
1.2
214
1.8
213
1.4
145
1.6
144
0.8
108
<0.4
106
105
104
<0.8
107
<0.6
0.7
<0.7
111
<0.7
112
113
1.9
<0.8
135
137
<0.9
138
1.1
0.7
139
140
141
1.5
143
2.2
212
1.2
211
2.0
210
<0.6
Multi-Purpose
Room
1.7
204
1.6
206
207
2.0
2.4
208
2.3
209
1.7
201
1.6
202
2.5
205
1.2
Kitchen
125
0.7
Legend
Radon Sample with
Average Concentration
DATE:
12/23/25
DRAWN BY:
LJ
CHECKED BY:
TS
SCALE:
N/A
PROJECT NO:
20450821-Elementary School
JOB DESCRIPTION:
Radon Testing
North Butler Elementary School
513 Birch Street
Allison, Iowa
SHEET TITLE:
Sample Location Map
1st Floor
Eocene SM
Environmental Group