



June 27, 2025

WO# 500170-2

Parsons

SENT VIA E-MAIL

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Attention: Carrie Strachan, B.Sc., C.e.t., P.Tech., Eng.I.

**RE: SUMMARY REPORT, LIMITED FUNGAL ASSESSMENT, 45124 RD 164N
(CARNIE RIDGE ROAD), RM OF GRAHAMDALE**

Dear Ms. Strachan,

Further to your request, EHS Partnerships Ltd. (EHS) has completed a fungal assessment of the residential property located at 45124 RD 164N (Carnie Ridge Road) in the Rural Municipality of (RM) Grahamdale, Manitoba herein referred to as the Project Area. The assessment was completed on June 26, 2025, by Tony Viles, GSC, Project Coordinator, and Matthew Aniagu, MSc, Project Technician, under the general direction of Kristin Petaski, P.Eng., Group Manager for EHS Winnipeg, and Brad Burwash B.A.Sc., CRSP, Hazmat Senior Technical Lead for EHS.

SCOPE OF WORK

The scope of work for the consulting services included the following:

- Inspection of the project area for water stain, water damage, and possible fungal contamination of building materials; and
- Preparation of a final summary report with assessment findings and recommendations.

BACKGROUND INFORMATION

Inspection services were requested following fungal abatement activities conducted in the Project Area on June 19, 2025. The purpose of the assessment was to verify the effectiveness of the remediation, confirm that fungal-contaminated materials had been adequately removed, and evaluate the area for any residual or additional fungal contamination.

Fungal proliferation in a building is dependent upon an adequate supply of water. When moisture accumulates more rapidly than the natural drying process, such as with chronic pooling of water or sudden flooding from rainwater, the ecology changes and favours the rapid reproduction or amplification of bacteria and fungi.

The factors, which determine the extent of microbial contamination, typically depend on how often and how long the material is wetted and dried or cooled and dried. The control of moisture in occupied buildings is considered to be the critical variable that will prevent or limit microbial growth.

There are numerous nutrient sources in buildings that can allow the growth and proliferation of micro-organisms. Micro-organisms have been shown to colonize gypsum board, wood paneling,

cellulose ceiling tiles, carpets, upholstered furniture, fibreglass-lined ducts, and other porous materials where the micro-organisms break down the material itself or utilize organic debris that has accumulated.

The goal of remediation is to remove or clean contaminated materials in a way that prevents the emission of potential fungi and dust from leaving a work area and entering an occupied or non-abatement area, while protecting the health of workers performing the abatement.

REGULATIONS AND GUIDELINES

Guidelines have been developed on the assessment and remediation of fungi in indoor environments. The relevant guidelines are presented below:

- Investigation, Assessment and Remediation of Mould in Workplaces published by Safe Work Manitoba, 2015;
- Residential Indoor Air Quality Guidelines: Moulds, 2007 published by Health Canada;
- Fungal Contamination in Public Buildings: Health Effects and Investigation Methods, 2004 published by Health Canada (Archived); and
- Guidelines on Assessment and Remediation of Fungi in Indoor Environments, 2008 published by the New York City Department of Health and Mental Hygiene.

According to the guidelines building materials supporting fungal growth must be remediated as rapidly as possible in order to ensure a healthy environment. Humidity should be controlled and the defects that led to water accumulation should be repaired in conjunction with or prior to fungal remediation efforts.

METHODOLOGY

The visual inspections were conducted in accordance with Health Canada, American Conference of Governmental Industrial Hygienists (ACGIH), and the American Industrial Hygiene Association (AIHA) guidelines for microbiological assessment and control.

Moisture analysis was performed using a Extech MO50 compact pin moisture meter to detect elevated moisture levels in building materials that may support fungal growth. Moisture readings were taken from accessible surfaces throughout the project area.

Thermal imaging was conducted using a Teslong Thermal Imaging Camera (Model TTM120s) to identify temperature anomalies that may indicate hidden moisture or potential water intrusion behind building materials. Thermal scans were used to supplement the moisture meter readings and guide targeted inspection areas.

OBSERVATIONS AND RESULTS

Moisture readings were collected from various building materials throughout the Project Area using a moisture meter. All tested materials showed moisture content levels between 5% and 9%, which are within acceptable ranges and do not support fungal growth. No signs of water staining, moisture damage, or elevated humidity were observed on any surfaces within the residence.

The thermal scans did not identify any areas of concern, such as cold spots, moisture accumulation, or hidden water intrusion behind building materials.

Inspection of the residence revealed no evidence of oxidation on copper piping or calcification, which would typically indicate prolonged moisture exposure. The fungal contamination previously identified in the kitchen and bedroom ceilings was successfully remediated. Post-abatement inspection confirmed that the affected areas were thoroughly cleaned and have been treated with an antifungal coating to prevent future regrowth.

Based on the assessment, the source of the fungal growth does not appear to be related to building envelope failure. It was determined that the sporadic fungal contamination likely resulted from a temporary furnace failure during the winter, which may have led to freeze-thaw moisture cycles within the residence.

Additionally, a pipe leak in the basement caused by an open tap connected to the well system was identified and has since been repaired. No residual moisture or fungal contamination was observed in the affected area.

Overall, the residence is in good condition and is free of fungal contamination at the time of the inspection. A Photographic log of the site conditions are presented in Appendix I.

DISCUSSION

Key factors for fungal growth on building materials include, increased moisture levels, food availability, and environmental conditions to which the building materials are subjected. Controlling the moisture levels in occupied buildings is considered to be the critical variable in preventing or limiting fungal growth.

The client should be aware that the potential for future growth or amplification of fungal levels can occur under conditions such as additional water intrusion issues, failure to resolve/repair previous moisture issues, or reoccurrence of any previously observed issues.

CONCLUSIONS AND RECOMMENDATION

The remediation work successfully involved the use of soap, scraping of fungal-contaminated materials and the application of an antifungal coating to treated surfaces. A visual inspection, moisture analysis, and thermal imaging confirmed the successful completion of the remediation activities.

Continued monitoring for potential water intrusion, maintenance of building systems, and prompt attention to future moisture issues are recommended to prevent recurrence.

STATEMENT OF LIMITATIONS

This report conveys findings about conditions that existed at the time such conditions were observed. The absence of mould in areas that EHS observed and/or tested is not to be construed as an assurance that mould cannot migrate to or colonize such areas at a later date. Significant mould growth can occur in a matter of days, creating significantly changed conditions. Certain conditions, such as moisture intrusion into a building, are known to contribute to the growth of mould. Do not assume that the conditions documented in this report still exist. Speak with EHS before taking any action that assumes that the conditions reported in this report are the conditions existing now.

CLOSURE

We trust the information presented in this report meets your requirements. If you have any questions, please feel free to contact the undersigned at 204.785.0616 or kpetaski@ehsp.ca. Thank you for the opportunity to be of service.

Sincerely,

EHS PARTNERSHIPS LTD.

per.

Report prepared by:

Report reviewed by:

Handwritten signature of Matthew Aniagu in black ink, appearing as 'MNA' with some scribbles.

Matthew Aniagu, MSc
Project Technician

Handwritten signature of Kristin Petaski in black ink, appearing as 'K Petaski'.

Kristin Petaski, P.Eng
Group Manager

APPENDIX I
Photographic Log



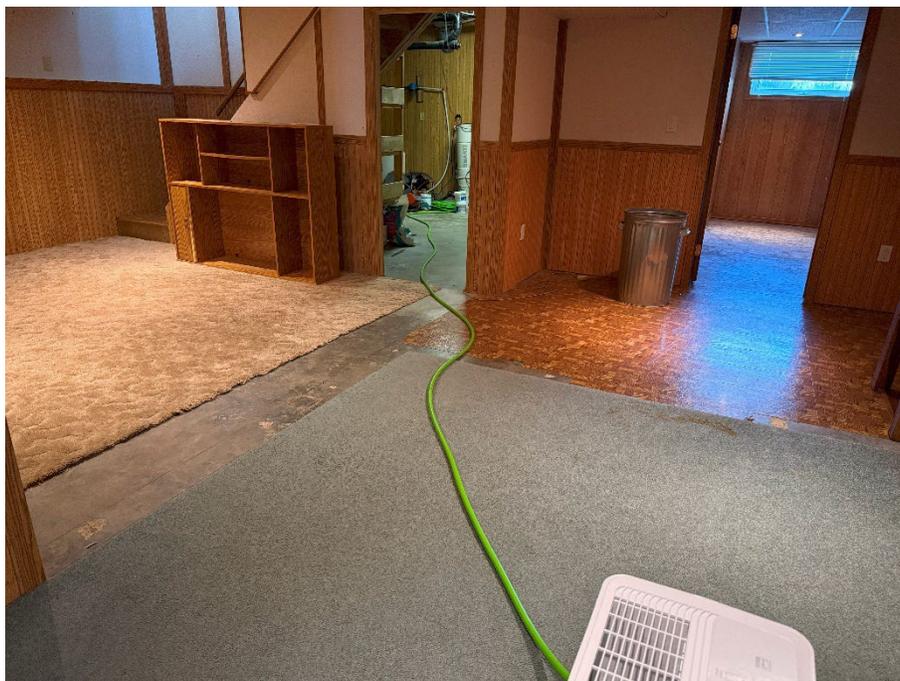
Photograph 1: Post Remediation, Main Floor, Kitchen Location 1.



Photograph 2: Post Remediation, Main Floor, Kitchen Location 2.



Photograph 3: Post Remediation, Main Floor, Bedroom.



Photograph 4: Post Remediation, Basement, Dehumidifier draining to sump pit.



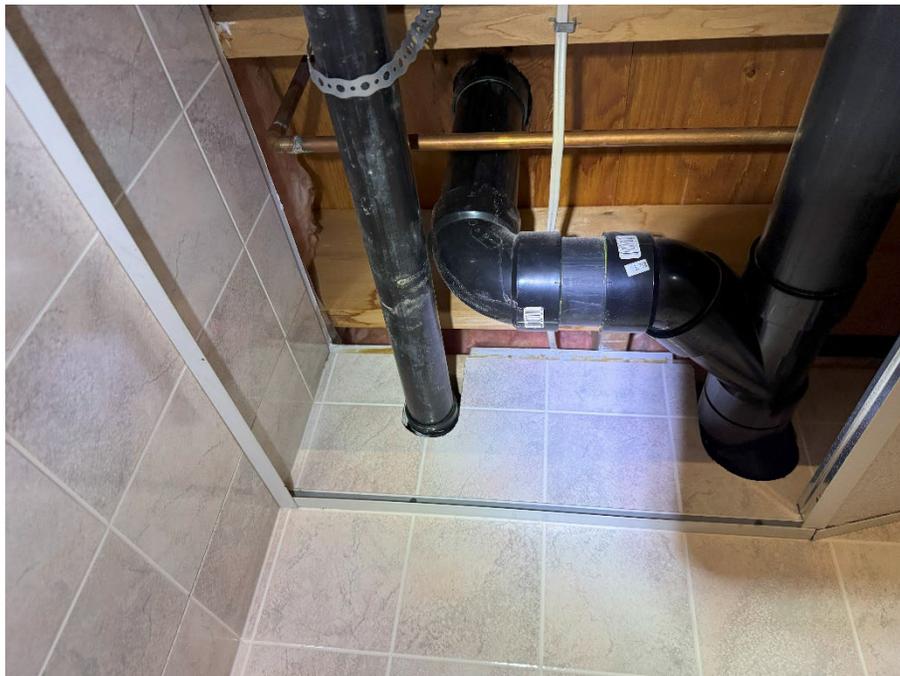
Photograph 5: Post Remediation, Basement, Sump pit room.



Photograph 6: Post Remediation, Basement, drop ceiling.



Photograph 7: Post Remediation, Basement, Above drop ceiling.



Photograph 8: Post Remediation, Basement, Bathroom ceiling