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03-1412-102

October 8, 2003

Healthy Home Inspections, Testing and Services Inc.
1015 Ironwork Pass
Vancouver, BC
V6H 3R4

Attention: Mr. Sig Jantzen

**RE: NATROMED - 601 WEST BROADWAY, QUALITY ASSURANCE AIR
SAMPLING**

Dear Mr. Jantzen:

1.0 INTRODUCTION

Golder Associates Ltd. (Golder), was retained by Healthy Home Inspections, Testing and Services Inc. (Healthy Homes) to conduct mould in air enumeration sampling and analysis within the NatroMed facilities located at 601 West Broadway, Vancouver, BC. The air sampling activities consisted of two sampling events, one event prior to the installation of a SanuVox UV Bio-Wall Unit (SanuVox Unit) and a follow-up sampling event after the installation of the SanuVox Unit.

2.0 PURPOSE

Healthy Homes installed a SanuVox Unit in the NatroMed suite. According to Health Homes, the SanuVox Unit eradicates bacteria, viruses and mould through UV light induction. The purpose of the sampling events was to establish airborne mould concentrations prior to and after the installation of the SanuVox Unit within the NatroMed suite.



3.0 METHODOLOGY

3.1 Air-O-Cell Sampling

Air-O-Cell air sampling is a sampling method designed for the rapid collection and analysis of a wide range of airborne aerosols, including fungal spores, pollen, insect parts, skin cell fragments, fibers, and inorganic particulates. As air enters the cassette, particles become impacted on the sampling substrate, as the air leaves through the exit orifice. The airflow (15 L/min) and patented cassette housing is designed in such a way that the particles are distributed and deposited equally on a special glass slide contained in the cassette housing called the "trace".

3.2 Guidelines for Interpretation of Results

Golder's interpretation of the Air-O-Cell air sampling results was based on those provided in the following documents:

- "Guidelines on Assessment and Remediation of Fungi in Indoor Environment", New York City Department of Health, Bureau of Environmental & Occupational Disease Epidemiology, April 2000;
- "Bioaerosols: Assessment and Control", American Conference of Governmental Industrial Hygienists (ACGIH), 1999;
- "Fungal Contamination in Public Buildings: A Guide to Recognition and Management", Federal-Provincial Committee on Environmental and Occupational Health, June 1995;
- "Indoor Air Quality in Office Buildings: A Technical Guide", Report of the Federal-Provincial Advisory Committee on Environmental and Occupational Health, 1995.
- "Mold Remediation in Schools and Commercial Buildings", United States Environmental Protection Agency, 2001.

4.0 FACILITY DESCRIPTION

The NatroMed suite comprises a medical facility and a fitness centre. The medical facility consists of several examination and treatment rooms, laboratories, laundry facilities, a kitchen area, storage rooms, offices and a reception area. The fitness center consists of changing facilities, an aerobic/yoga room, full gym and a juice bar.

5.0 SAMPLING PROGRAM

5.1 Initial Air Sampling Event

Ms. Tanya Mrowietz of Golder, conducted sampling on July 21, 2003. During this time Healthy Homes had not installed the SanuVox Unit. The air samples were submitted to the laboratory for bulk enumeration analysis on the day of the sampling. Sample point locations are provided in section 6.0, inclusive.

5.2 Follow-up Air Sampling Program

Ms. Mrowietz conducted the follow-up sampling event on September 15, 2003, at which point the SanuVox Unit had been operational for approximately seven weeks. The air samples were submitted to the laboratory for bulk enumeration analysis on the day of the sampling. Sample point locations are provided in section 6.0, inclusive.

6.0 RESULTS

The results for the initial air sampling event, indicated concentrations of airborne mould to be as follows:

Table 1: Initial Air Sampling Event Results

Identification	Sample Point Location	Results (Cts/m ³)
1A	Exam Room #2	7379
2A	Reception	11500
3A	Fitness Centre	17681
4A	Laboratory	2145
5A	Outside & Upwind	17538

A copy of the laboratory results for the Initial Air Sampling Event is presented in **Appendix 1**.

The results for the follow-up air sampling event on September 15, 2003, indicated concentrations of airborne mould to be as follows:

Table 2: Follow-up Air Sampling Event Results

Identification	Sample Point Location	Results (Cts/m ³)
1B	Exam Room #2	186
2B	Reception	93
3B	Fitness Centre	837
4B	Laboratory	372
5B	Outside & Upwind	54529

A copy of the laboratory results for the Follow-up Air Sampling Event is presented in **Appendix 2**.

7.0 CONCLUSION

Based on a comparison of the results of the initial air sampling event, to that of the follow-up air sampling event, Golder provides the following opinion:

- The analytical results for Follow-Up air sampling event indicated airborne mould within the Subject Suite to be 1 to 3 orders of magnitude lower than the air sample results for the Initial Air Sampling Event (prior to the installation of the SanuVox Unit); and
- Based on the analytical air sample results, airborne mould levels within the Subject Suite were judged to be less than that of the outdoor, or background air sample obtained on the day of the Follow-Up air sampling event.

8.0 CLOSURE

This report has been prepared for the sole benefit of Healthy Homes and their representatives. This report may not be relied upon by any other person or entity without the express written consent of Golder and Health Homes.

Any use that a third party makes of this report, or any reliance on decisions to be made based on it, is the responsibility of such third parties. Golder accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The conclusions presented in this report represent the best judgment of the assessor based on current environmental standards, on the site conditions observed on July 21, 2003 and September 15, 2003, and on sample results that can only be extrapolated to undefined,

limited areas surrounding individual sampling locations. It should not be inferred that other potential contaminants are not present. Due to the nature of the investigation and the limited data available, the assessor cannot warrant against undiscovered environmental liabilities.

Should additional information become available, Golder requests that this information be brought to our attention so that we may re-assess the conclusions presented herein.

We trust that this information is sufficient for your requirements at the present time. Should you have any questions or require any additional information, please do not hesitate to contact the undersigned at your convenience.

Sincerely,

GOLDER ASSOCIATES LTD.

Tanya Mrowietz, GradTech.
HazMat and OH&S Technologist

Lance Pizzariello, C.C.E.P., C.E.T., A.Sc.T.
Hazardous Materials and OH&S Manager

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