Environmental Consulting and Management Services

Tel: 845-638-0640
Cell: 914-523-1523

info@ecmsny.com
www.ecmsny.com

March 16, 2016

Elyse Piker | Director For School Operations, New York Metro Region
HEBREW CHARTER SCHOOL CENTER
729 Seventh Avenue, Ninth Fl. | New York, NY 10019
C: 646-335-5762 F: 212-279-1155 | www.hebrewcharters.org

Re: Mold Air Sampling @
Hebrew Charter School
2186 Mill Avenue
Brooklyn NY

Dear Ms. Piker,

As per your request, on March 7, 2016, ECMS conducted mold air sampling for the purpose of documenting existing airborne mold levels. Samples were collected from the interior areas of the school to document the levels and spore types.

Airborne Spore-Trap samples were collected from the following areas:

1st Fl., Admin office, Room #110 Main Office

1st Fl., Principal's Office, Room #107

1st Fl., Main Office Area

2nd Fl., 2nd Grade, Room #203

2nd Fl., 2nd Grade, Room #204

3rd Fl., 5th Grade, Room #305

3rd Fl., 5th Grade, Room #306

The indoor samples were taken under normal school conditions. Spore trap samples provide total airborne representation (viable and Non-viable) and are useful in determining whether a problem exists in respect to concentration and specific spore type.

Results of Air-O-Cell sampling are typically interpreted by comparing indoor levels to outdoor levels, however due to the winter dormant conditions, we collected indoor air samples only for the objective of evaluating the interior levels. In relative terms, if indoor levels of total airborne fungi are significantly high or if the indoor flora contains significantly higher/elevated levels of any genus/species related to water damage conditions and/or occupant health complaints

("marker fungi"), then appropriate action should be taken to identify and remediate the underlying mold growth problem(s). The primary "marker fungi" are *Aspergillus/Penicillium, Chaetomium & Stachybotrys*.

Following sample collection, the spore trap cassettes were submitted for laboratory microscopic identification by Metro Labs, accredited for analysis of microbial and environmental samples by NYS Department of Health.

The attached analytical laboratory report indicates that levels of total airborne fungi and specifically identifies the levels of *Penicillium/Aspergillus* and other water-indicator type spores including Chaetomium and *Stachybotrys.*

In evaluating the eight (8) samples collected, six of the eight samples had ZERO levels of airborne mold and two (2) samples contained ascospores which are undeveloped spore types, ubiquitous in our environment and non-pathogenic.

Conclusions:

Based upon the data at the time of sampling, no elevated levels of spores were detected and the spore types detected in two of the eight samples were extremely low and not considered to be indicative of any moisture of water conditions.

If you have questions or require additional information, please call me.

Sincerely,

Marc Rutstein
President

METRO HIL
ANALYTICAL LABORATORIES
255 West 36th St., Suite #101
New York, NY 10018
p: (212) 695-0165 f: (212) 695-0183

ANALYSIS and IDENTIFICATION of MOLD

Client:	**Environmental Consulting & Management Services Ir**	Contract:	**HEBREW CHARLES SCHOOL CENTER**
Address:	10 Filmont Rd	Client Job #:	
	New City NY 10956	Location:	**2186 MILL AVENUE**
	P: (845) 638-0640 F:		
			BROOKLYN NY 11234
Contact:	**Marc Rutstein**	Sampled By:	J.R.
	M:	Sampled Date:	3/7/2016
	E: Marc.Rutstein@ecmsny.com	Turnaround Time:	24 hrs

Metro Lab ID #:	**M16030005**
Sample Received:	3/7/2016
Mold Analysis Date:	3/8/2016
Analytical Sensitivity:	13.33
Report By:	Roger Gomez
Report Date:	3/8/2016

Summary of Analysis

LAB ID #	Client Sample #	Sample Description	Volume (L)	Fungi Sample Identification Details: Identification	Raw Count	Spores/ m^3	%	Identification	Raw Count	Spores/ m^3	%	Identification	Raw Count	Spores/ m^3	%	Fungi Totals: Raw Count	Spores/ m^3
1	660	Air Cassette - Air-O-Cell 1ST FLOOR - ADMIN 110 MAIN OFFICE MIDDLE	75													None Detected	None Detected
2	635	Air Cassette - Air-O-Cell 1ST FLOOR - PRINCIPAL'S OFFICE RM 107 MIDDLE	75													None Detected	None Detected
3	616	Air Cassette - Air-O-Cell 1ST FLOOR - CLASSROOM GRADE K - RM 121 MIDDLE	75													None Detected	None Detected
4	608	Air Cassette - Air-O-Cell 1ST FLOOR - ADMIN 104 MAIN OFFICE MIDDLE	75													None Detected	None Detected
5	626	Air Cassette - Air-O-Cell 2ND FLOOR - CLASSROOM GRADE 2 - RM 203 MIDDLE	75	**Ascospores**	**1**	**13**	**100.0%**									**1**	**13**
6	628	Air Cassette - Air-O-Cell 2ND FLOOR - CLASSROOM GRADE 2 - RM 204 MIDDLE	75	**Ascospores**	**1**	**13**	**100.0%**									**1**	**13**
7	609	Air Cassette - Air-O-Cell 3RD FLOOR - CLASS GRADE 5 - RM 305 MIDDLE	75													None Detected	None Detected
8	625	Air Cassette - Air-O-Cell 3RD FLOOR - CLASSROOM GRADE 5 - RM 306 MIDDLE	75													None Detected	None Detected

Comments

Zlatan Dimitrijevic
Laboratory Director

Moe Soliman
Mold Analyst

NYS ELAP ID # 12003 **NVLAP Lab Code: 500081-0**

AIHA PT: 220677

METRO ANALYTICAL LABORATORIES
255 West 36th St., Suite #101
New York, NY 10018
p: (212) 695-0165 f: (212) 695-0183

Report Notes

General Notes and Disclaimers

- The samples in this report were not collected by this laboratory.
- Samples are received in good condition, except if noted.
- The report shall not be reproduced, except in full, without the written approval of the laboratory.
- This report relates only to the samples tested. It may not be used by the client to claim project endorsement by NVLAP, NYS ELAP, or any other government agency.
- Quality Control data (including 95% confidence limits, laboratory / analysis accuracy and precision) is available upon request.

Notes Regarding Mold Testing

Direct Fungal Identification Analysis Explanations

Air Cassette Density	Amount of Particulate on Slide	Explanation
1	Insignificant	Should not skew any counts
1+	Low	Should not skew any counts
2	Low to Moderate	Should not skew any counts
2+	Moderate to High	May cause occlusion of small spores
3	High	May cause occlusion of small to medium spores
3+	Very High	Will cause occlusion of spores
4	Overloaded	Level of particulate too high to perform analysis

Mold Limit Guidelines

Spores/m^3	Mold Spore Limit
0 - 3,000	Low*
3,000 - 10,000	Moderate
10,000 - 25,000	High
25,000 - 75,000	Very High
75,000 - 100,000+	Remediation Required

*Unless Stachbotrys or Penicillum / Aspergillus detected - these fungi should be remediated at all detection levels.

METRO ANALYTICAL LABORATORIES
255 West 36th St., Suite #101
New York, NY 10018
p: (212) 695-0165 f: (212) 695-0183

Report Notes

Mold Glossary & Fact Sheet

Genus	Species	Recovered From	Details	Inside/Outside Spore Type	High Water Activity	Mycotoxins Produces	Health Hazards
Acremonium	Species	soil, dead leaves, carpet, gypsum board	generally recovered lin large numbers	often recovered from water damaged inside wall	Yes	No	keratitis, mycetoma, aspergillosis
Alternaria	Alternata	carpet and air. Mostly an outside spore on plants and in soil	occurs in small amounts	outside	Yes	Yes	phaeohypho- mycosis, infections of bone, cutaneous tissue, ears, eyes, paranasa
Arthrinium	Species	soil, forest litter, plant materials, decaying wood, decaying wood in crawl spaces	outside in moderate numbers; often found on decaying wood in crawl spaces	outside	No	No	N/A
Ascospores	Species	wide variety of substrates. Plant, soil, air, cellulose materials, wood in crawl space	at certain times of year, found in large numbers outside	outside	Yes	Dependent on Genus/Species	Basidiospores (if outside), not generally recovered on laboratory media.
Aspergillus	Species	soil, food, air, carpet, HVAC	large amounts when recovered	both	Yes	Yes	Aspergillosis
Aureobasidium	Pullulans	food, indoor, soil, leaf, seeds, fruit drinks, carpet, wet areas	low amounrs	inside	Yes	No	corneal, peritoneal, cutaneous, pulmonary, systemic mycosis
Basidiospores	Species	soil, wood, cellulose materials, plywood when wet	large amounts	outside	Yes	No for Air Yes for Mushrooms	None from air. Some mushrooms ingested can contain dangerous toxins
Bipoloris	Species	plant debris, soil	large amounts	inside / mostly outside	No	Yes	Allergic fungal sinusitis
Chaetonium	Speices	ascospore commonly associated with wet gypsum board, present in soil	large amounts	inside	Yes	No	Occasionally associated with infections of blood, brain, skin and nails
Cladosporium	Species	plant material, soil, indoor air, carpet, HVAC	large amounts	both	No	No	N/A
Curvularia	Species	soil, plant material, carpet, cellulose materials (paper)	low amounrs	both	No	Yes	Opportunisitc pathogen of cornea and sinuses. Related to keratitis, endocarditis, mycetoma and pulmonary infection.
Epicooum	Nigrum	plants, soil, carpet, air, seeds	generally recovered in small numbers primarily	both	No	No	None
Fusarium	Species	grains, soils, apples, potatoes, sugar beet, maize	few when recovered	both	No	Yes	Several species causekeratitis, occasionally mycetoma, sinusitis. Contains highly toxic secondary metabolites when ingested.
Ganoderma	Species	conifers, hardwood, root rot	recovered from wind	both	No	Unknown	Allergies
Microspcorum	Species	human and animal scalp, skin, nails	rarely recovered in air samples	inside	No	No	Dermatophyte. Ringworm, infections of skin, scalp and nails

METRO HI ANALYTICAL LABORATORIES
255 West 36th St., Suite #101
New York, NY 10018
p: (212) 695-0165 f: (212) 695-0183

Report Notes

Mold Glossary & Fact Sheet

Genus	Species	Recovered From	Details	Inside/Outside Spore Type	High Water Activity	Mycotoxins Produces	Health Hazards
Myxomycete	Species	plant pathogen	low amounrs	outside	No	No	None
Nigrospora	Species	carpet, air,soil, plants	low amounrs	both	No	No	None
Periconia	Species	plant pathogen	low amounrs	outside	No	No	None
Pithomyces	Species	soil, air, plant material	at certain times of the year can be recovered in moderate amounts from outside air	outside	No	No	None
Polythrincium	Species	leaves	recovered in low amounts	outside	No	Unknown	Allergies
Spegazzinia	Species	soil,plants	recovered in very small numbers	outside	No	No	None
Stachybotrys (Memnoniella)	Chartarum (Echinata)	most often actively growing on the backside of gypsum board; carpet, HVAC provide sparse growth and sometimes only spores	must be < 1 outside; not tolerated at any level inside	most often recovered inside	Yes	Yes	Neurotoxic. Toxins are damaging to organs but the spores do not grow at body temperature.
Stemphylium	Species	soil, grass, wood, paper	small numbers outside	outside	No	No	None
Tetraploa	Species	plant material	very small numbers outside	outside	No	No	None
Torula	Species	soil, plants	very small numbers outside	outside	No	No	None
Trichophyton	Species	human and animal scalp, skin, nails	rarely recovered in air samples	inside	No	No	Dermatophyte. Ringworm, infections of skin, scalp and nails
Ulocladium	Species	soil, grass, wood paper	in small numbers outside, moderate inside	both	Yes	No	None
Uredinospores (Rusts)	Species	plant pathogen	variable in numbers produced	outside	No	No	None