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Engineering Individual Solutions

March 26, 2012

Mr. Bernard P. Orlan
Director, Environmental Health & Safety
New York City Department of Education
44-36 Vernon Boulevard
Long Island City, NY 11101

**Re: Report of Mold and Moisture Services
P.S. 17 K and 577K
208 North 5th Avenue
Brooklyn, NY 11211
ATC Project No. 015.19125.1377**

Dear Mr. Orlan:

ATC Associates Inc. (ATC) is pleased to provide this report of mold and moisture services conducted on March 22, 2012 and March 23, 2012 at the above referenced school. The New York City Department of Education (DOE) requested ATC's services to provide mold and moisture services for possible mold contamination in random rooms on floors 1 through 5.

SCOPE OF SERVICES

Conducted March 22, 2012

ATC collected 21 samples for spores randomly in the school. All were below outside level, however *Stachybotrys chartarum* were found in only one sample of room 403.

ATC collected twenty-one (21) air samples for direct microscopic examination of non-viable fungal spores. One (1) sample was collected in each of the following locations (rooms 501, 503, 506, 509, 413, 412, 406, 403, 301, 307, Hallway between room 310 & 311, 306, room 313 office, Nurse's office 2nd floor, Main office 2nd floor, K-202, Pre K-101, Pre K-103, 1st floor cafeteria, 1st floor library and one (1) sample was collected outdoors for comparison. One (1) blank sample was also submitted to the laboratory for quality control. The complete laboratory reports of analysis for the samples collected on March 22, 2012 are included in the laboratory reports of analyses Batch # 1757A & 1758.

The outdoor total concentrations were 372 fs/m³ with Basidiospores identified as the dominant fungal type at the time of collection. The indoor concentrations in the locations sampled, were found to have concentrations of total fungal structures in the air, and mold types, that were similar or lower indoors compared to outdoors, with no confirmed presence of target mold types, these samples are considered acceptable, however with the exception of room 403 which was found to have levels of mold types confirmed (*Stachybotrys chartarum*). Therefore, this indoor sample is considered unacceptable.

Conducted March 23, 2012

ATC services included visual assessments, screening building materials for elevated moisture in room 403 and noted the following.

- Water damage was observed on ceiling and on the sheet rock wall behind the radiator and elevated moisture was detected in the damaged areas.
- ATC was informed that SCA performed the mold remediation and clean up project based on ATC's findings and recommendations on Friday March 23, 2012.

CONCLUSION

Based on ATC's visual observations, moisture mapping and microbial sampling during these services conducted on March 22 and 23, 2012, ATC concludes that microbial sampling was found to be acceptable in 20 of the 21 samples taken.

- SCA removed wet sheet rock behind the radiator and scraped the damaged plaster ceiling in room 403 based on ATC's findings and recommendations on Friday March 23, 2012. The remediation was completed and considered effective.

LIMITATIONS

The results of this survey represent conditions found on the date of the survey and may not represent conditions found at other times. This assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of conditions within the school. The information presented in this report is intended to be used as a guide to evaluate the need for further investigation or the need for modifications to current microbial control activities.

ATC provided these services consistent with the level and skill customarily exercised by members of the profession currently practicing under similar conditions. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the Department of Education (DOE).

The intent of the report is to aid the building owner, architect, construction manager, general contractors, and potential demolition and abatement contractors in locating fungi growth (mold). This report is not intended to serve as a bidding document nor as a project specification document. The actual site conditions and quantities should be verified. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or reuse of this document, the findings, conclusions, or recommendations is at the risk of said user. Although a reasonable attempt has been made to identify suspect fungi (mold) in the areas identified, the inspection techniques used are inherently limited in the sense that only full demolition procedures will reveal all building materials of a structure and therefore all areas of potential fungal growth.

Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during ATC's inspection of the Site.

It is our pleasure to provide these consultative services to the New York City Department of Education. If you have any questions about this report, please contact me at (212) 353-8280.

Yours truly,
ATC ASSOCIATES INC.

Robert Greene
Senior Project Manager

Michael G. Donovan, CIH
Senior Project Manager

Attachments: ATC Laboratory Reports of Analyses Batch # 1757A & 1758.

ATTACHMENT

ATC LABORATORY REPORTS OF ANALYSES BATCH # 1757A & 1758



ATC ASSOCIATES INC

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Client ATC ASSOCIATES INC. - NEW YORK
Client Address: 104 E 25TH STREET, 10TH FL
NEW YORK, NY 10010

Project: P.S. 17K
208 North 5th Ave., Brooklyn, NY 11211

Project # 15.19125.1377

Sample Date: 3/22/2012
Date Received: 3/23/2012
Date Analyzed: 3/23/2012
Report Date: 3/23/2012
ATC Batch # 1757A
Total Samples: 18
Sample Media: Air

Microbiology Air Samples-Non-Viable Spore Trap Analysis Report Method Direct Examination (Bioaerosol)

Sample ID	Location	Volume	Background Debris	Fungal Spores (FS)	Raw Counts	FS/m ³ ⁶	Percentage %	Total ¹ FS/m ³
1 1757A - 1	Room 413	75 (L)	Light	Ascospores	1	13	4.2	306
				Basidiospores	15	200	65.4	
				Cladosporium	1	13	4.2	
				Penicillium/Aspergillus types	6	80	26.1	
2 1757A - 2	Room 412	75 (L)	Light	Basidiospores	10	133	83.1	160
				Penicillium/Aspergillus types	2	27	16.9	
3 1757A - 3	Room 406	75 (L)	Light	Ascospores	2	27	7.8	347
				Basidiospores	18	240	69.2	
				Cladosporium	3	40	11.5	
				Penicillium/Aspergillus types	3	40	11.5	
4 1757A - 4	Room 403	75 (L)	Moderate	Ascospores	1	13	6.1	212
				Basidiospores	4	53	25.0	
				Penicillium/Aspergillus types	1	13	6.1	
				Stachybotrys chartarum	10	133	62.7	
5 1757A - 5	Room 301	75 (L)	Light	Basidiospores	2	27	100.0	27

Microbiology Air Samples-Non-Viable Spore Trap Analysis Report
Method Direct Examination (Bioaerosol)

<i>Sample ID</i>	<i>Location</i>	<i>Volume</i>	<i>Background Debris</i>	<i>Fungal Spores (FS)</i>	<i>Raw Counts</i>	<i>FS/m³ ⁶</i>	<i>Percentage %</i>	<i>Total ¹ FS/m³</i>
6 1757A - 6	Room 307	75 (L)	Light	Ascospores	2	27	18.4	147
				Basidiospores	9	120	81.6	
7 1757A - 7	Hallway between 310 & 311	75 (L)	Light	Epicoccum	1	13	100.0	13
8 1757A - 8	Room 306	75 (L)	Light	NOT DETECTED				<RL
9 1757A - 9	Room 313 office	75 (L)	Light	Basidiospores	3	40	100.0	40
10 1757A - 10	Nurse's office, 2nd flr	75 (L)	Light	Basidiospores	12	160	80.0	200
				Penicillium/Aspergillus types	3	40	20.0	
11 1757A - 11	Main office 2nd floor	75 (L)	Light	Basidiospores	4	53	28.3	187
				Cladosporium	5	67	35.8	
				Penicillium/Aspergillus types	5	67	35.8	
12 1757A - 12	K-202	75 (L)	Light	Basidiospores	2	27	25.2	107
				Cladosporium	1	13	12.1	
				Penicillium/Aspergillus types	5	67	62.6	
13 1757A - 13	Pre k- 101	75 (L)	Light	Ascospores	2	27	11.8	228
				Basidiospores	11	147	64.5	
				Cladosporium	2	27	11.8	
				Smuts, Periconia, Myxomycetes	2	27	11.8	
14 1757A - 14	Pre k- 103	75 (L)	Light	Basidiospores	3	40	75.5	53
				Smuts, Periconia, Myxomycetes	1	13	24.5	

Microbiology Air Samples-Non-Viable Spore Trap Analysis Report
Method Direct Examination (Bioaerosol)

Sample ID	Location	Volume	Background Debris	Fungal Spores (FS)	Raw Counts	FS/m ³ ⁶	Percentage %	Total ¹ FS/m ³
15 1757A-15	1st floor cafeteria	75 (L)	Light	Basidiospores	2	27	100.0	27
16 1757A-16	1st floor library	75 (L)	Light	Basidiospores	3	40	75.5	53
				Smuts, Periconia, Myxomycetes	1	13	24.5	
17 1757A-17	Outdoors	75 (L)	Moderate	Ascospores	1	13	3.5	372
				Basidiospores	13	173	46.5	
				Cladosporium	2	27	7.3	
				Epicoccum	1	13	3.5	
				Penicillium/Aspergillus types	10	133	35.8	
				Smuts, Periconia, Myxomycetes	1	13	3.5	
18 1757A-18	Blank			NOT DETECTED				<RL

NOTES:

- 1) The Reporting Limit is the Minimum Reporting Limit (MRL) which is based on 1 Raw Count per spore trap.
- 2) Disclaimer: The laboratory is not responsible for sample collection.
- 3) Accredited by AIHA-LAP, LLC 100229
- 4) The data within this report is reliable to two significant figures.
- 5) Background debris is an indication of amounts of non-fungal biological and non-biological particulate matter present on the sample and is characterized as very light, light, moderate, heavy or very heavy. Heavy background debris may obscure spores, reducing spore visibility during analysis. Consequently, spore counts from heavy background debris should be considered minimal.
- 6) FS/m³ = RC/Air Volume (liters) X 1000
- 7) The condition of all samples was acceptable upon receipt.
- 8) CONFIDENTIALITY STATEMENT:
This report may not be reproduced except in full, and only with the written approval of this laboratory. Please contact ATC regarding any questions about these results, this report, or the analytical methods employed.
- 9) LIABILITY NOTICE:
ATC Associates Inc. and its personnel shall not be liable for any misinformation provided to us by the client regarding these samples. The report relates only to samples submitted and analyzed.
- 10) Supplement to test reference # _____ . Amendments: ____ . Amendment Dates: ____ . Amended by: _____
- 11) ATC certifies that this report is an accurate and authentic report of results obtained from the laboratory analysis.
- 12) The uncertainty for these test results is available upon request.

Amr Fata
 Analyzed by: _____

Mei Wang
 Approved by Quality Manager



Environmental, Geotechnical and Materials Engineers

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MICROBIOLOGY LETTER

A handwritten signature in cursive script that reads 'Eliza Domenech'.

Eliza Domenech
Microbiology Technical Manager / Analyst

A handwritten signature in cursive script that reads 'Milena Bonezzi'.

Milena Bonezzi
Laboratory Director

Thank you for using ATC Associates Inc. We strive to provide superior quality and service.

ATC is a participant in AIHA's Environmental Microbiology Proficiency Analytical Testing program. EMPAT #100229. ~~AIHA accreditation complies with the ISO/IEC standard 17025 requirements, but this does not imply ISO certification or registration.~~

The data within this report is reliable to two significant figures.

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Guidelines for Interpretation:

No accepted quantitative regulatory standards currently exist by which to assess the health risks related to mold and bacterial exposure. Molds and bacteria have been associated with a variety of health effects and sensitivity varies from person to person.

Several organizations, including: the American Conference of Government Industrial Hygienists (ACGIH); the American Industrial Hygiene Association (AIHA); the Indoor Air Quality Association (IAQA); the United States Environmental Protection Agency (USEPA); the Centers for Disease Control (CDC), as well as the California Department of Health Services (CADHS), have all published guidelines for assessment and interpretation of mold resulting from water intrusion in buildings.

Interpretation of the data and information within this document is left to the company, consultant, and/or persons who conducted the fieldwork.