COURTICE | GRASON

P.O. Box 71
1701 South Hamilton
Sullivan, Illinois 61951
Office.217.728.4170
Facsimile.217.728.2697
Mobile.217.254.4988

Because Quality Costs Less

Offering:

Asbestos Support Services
Air / Emission Source Sampling
Compliance Investigations
Demolition / Facility Closures
Environmental Assessments
Lead Hazard Screens
Petroleum Spill Response
SPCC, FRP, and SW3P Plans
Scrap Management
UST Closure / Corrective Action
Waste / Drum Management

June 25, 2017

Lore Ade
Pana CUSD #8
14 East Main Street
Pana, IL 62557

Subject: Total Fungal Spore Analysis \ **Reevaluation Testing**

Location: Washington School
200 South Sherman; Pana, Illinois

Dear Ms. Ade:

Attached please find the results of the total fungal spore monitoring performed inside the Washington School. The sampling was performed June 9, 2017, and is a followup evaluation of testing performed at this location on March 24, 2014. The locations tested on June 9 included the: *Kitchen*, *Room 5 (Ms. Tyran)*, *Room 10 (Ms. Lamarche)*, *Room 13 (Ms. Reynolds)*, the *Office (Reception)*, and *Room 20 (Ms. Cross)*. In accordance with standard professional practices, one additional sample was also collected outside the building (i.e., outside the Kitchen Door on the north side of the school).

Based on knowledge and belief, the data showed a decrease in the penicillium/aspergillus spores compared to the March 24, 2014 test data. Furthermore, when compared to a reference sample collected at the point believed to be representative of air infiltrating the building (i.e., outside the Kitchen door), the total fungal spores counted inside the interior spaces were less than the total fungal spores counted in the outside air (control sample). The recommendation of the American Conference of Governmental Industrial Hygienists (ACGIH) is that further testing or even remedial action should be undertaken if fungal spores exist at levels greater than ten times that of the control sample. Since the levels inside the School are less than this, we do not recommend any additional tests at this time.

Please note this sampling event represents concentrations at a unique point in time and that the results could vary under different conditions, times, or seasons of the year. If there should be any questions please call the undersigned Project Manager at 217.254.4988.

Very Truly Yours,

COURTICE|GRASON

Courtice F. Bowman Jr.

Attachments: Certificate of Spore Trap Analysis

COURTICE GRASON LLC

AIR SAMPLE LOG

1524 = Lori 99 AFTER 2ND JAN

9 North Hamilton ♦ Sullivan, Illinois 61951 ♦ 217.728.4860.phone ♦ 217.728.2697.fax
♦ www.CourticeGrason.com

WORK Coming UP 2 JANITOR #s
2 STAFF #s

Date: 06-09-2017
Client: AEA SCHOOLS
Job Number: 2454
Job Location: WASHINGTON SCHOOL

Pump #	Sample #	Location/Person	IC/OC	Time On	Time Off	Minutes	Flow Rate on	Flow Rate off	Flow Rate avg	Volume LITERS	Code
HV 1	7100	KITCHEN	☐C	1024	1034	10	15	→	→	150	A
2	7106	Room 5: MRS. TYRAN	☐C	1024	1034	10	15	→	→	150	A
3	7107	Room 10: MRS. LAMARCHE	☐C	1024	1034	10	15	→	→	150	A
4	7101	Room 13: MRS. REYNOLDS	☐C	1024	1034	10	15	→	→	150	A
5	7108	OFFICE AREA	☐C	1055	1105	10	15	→	→	150	A
6	7102	Room 20: MRS. CROSS	☐C	1055	1105	10	15	→	→	150	A
7	7090	OUTSIDE Control Sample	☐C	1055	1105	10	15	→	→	150	A
		☐C = OUTSIDE AREAS									
		OF CONCERN									

Calibration

- Gilibrator ☐
- Bubble Burette ☐
- Critical Orifice ☐
- Rotometer ☒

Notes & Calculations

#1, 2 → LOWER FLOOR (ABOVE BASEMENT)
#3, 4 → MIDDLE FLOOR (FLOOR ABOVE LOWER)
#5 → OFFICE "

Codes

A-Area Sample
B-Baseline Sample
C-Clean Air (Clearance) Sample
F-Field Blank
P-Personal Sample
O-Other (Specify)

IC-Inside Containment
OC-Outside Containment

Technician Signature

CTG

Aerobiology Laboratory Associates, Incorporated
Expertise Since 1997

Certificate of Analysis
AIHA-LAP EMLAP# 102747

7184 North Park Drive
Pennsauken, New Jersey 08109
(856) 486-1177
www.aerobiology.net

Courtice Grason
1701 S. Hamilton St.
Sullivan, Illinois 61951
Attn: Courtice Grason
Project: **2449 / WASHINGTON SCHOOL**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 06/09/2017
Date Received: 06/13/2017
Date Analyzed: 06/15/2017
Date Reported: 06/16/2017
Project ID: 17017868

Client Sample Number	7108				7102			
Sample Location	OFFICE RECEPTION				RM 20 MRS CROSS			
Sample Volume (L)	150				150			
Lab Sample Number	17017868-005				17017868-006			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out	Raw Ct	spr/m³	% Ttl	In/Out
Alternaria	1	27	33	-	-	-	-	-
ascospores	1	27	33	-	1	27	25	-
Cladosporium	1	27	33	-	3	80	75	-
	Debris Rating **2**				Debris Rating **1**			
Analytical Sensitivity	Analytical Sensitivity: **7** spr/m³				Analytical Sensitivity: **7** spr/m³			
Comments								
Total *See Footnotes	3	80	~100%	-	4	107	~100%	-

Client Sample Number	7090			
Sample Location	OUTSIDE CONTROL SAMPLE			
Sample Volume (L)	150			
Lab Sample Number	17017868-007			
Spore Identification	Raw Ct	spr/m³	% Ttl	In/Out
Alternaria	6	160	8	-
ascospores	25	667	32	-
basidiospores	12	320	15	-
Cercospora	1	27	1	-
Cladosporium	24	640	30	-
Epicoccum	3	80	4	-
hyphal elements	2	53	3	-
Smuts,Periconia,Myxomycetes	3	80	4	-
Spegazzinia	1	27	1	-
Torula	2	53	3	-
	Debris Rating **4**			
Analytical Sensitivity	Analytical Sensitivity: **7** spr/m³			
Comments				
Total *See Footnotes	79	2107	~100%	-

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Lab Sample Number	17017868-005				17017868-006			
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ascospores	1	27	33	-	1	27	25	-
Cladosporium	1	27	33	-	3	80	75	-
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Analytical Sensitivity	Analytical Sensitivity: **7** spr/m³				Analytical Sensitivity: **7** spr/m³			
Comments								
Total *See Footnotes	3	80	~100%	-	4	107	~100%	-

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Footnotes and Additional Report Information

Debris Rating Table

1	Minimal (<5%) particular present	Reported values are minimally affected by particulate load.
2	5% to 25% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
3	26% to 75% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
4	75% to 90% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
5	Greater than 90% of the trace occluded with particulate	Quantification not possible due to large negative bias. A new sample should be collected at a shorter time interval or other measures taken to reduce particulate load.

1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular, and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Two common examples would be Paecilomyces and Acremonium. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both. Keep in mind that these are not the only two possibilities.

2. Ascospores are sexually produced fungal spores formed within an ascus. An ascus is a sac-like structure designed to discharge the ascospores into the environment, e.g. Ascobolus.

3. Basidiospores are typically blown indoors from outdoors and rarely have an indoor source. However, in certain situations a high basidiospore count indoors may be indicative of a wood decay problem or wet soil.

4. The colorless group contains colorless spores which were unidentifiable to a specific genus. Examples of this group include Acremonium, Aphanocladium, Beauveria, Chrysosporium, Engyodontium microconidia, yeast, some arthrospores, as well as many others.

5. Hyphae are the vegetative mode of fungi. Hyphal elements are fragments of individual Hyphae. They can break apart and become airborne much like spores and are potentially allergenic. A mass of hyphal elements is termed the mycelium. Hyphae in high concentration may be indicative of colonization.

6. Dash (-) in this report, under raw count column means 'not detected (ND)'; otherwise 'not applicable' (NA).

7. The positive-hole correction factor is a statistical tool which calculates a probable count from the raw count, taking into consideration that multiple particles can impact on the same hole; for this reason the sum of the calculated counts may be less than the positive hole corrected total.

8. Due to rounding totals may not equal 100%.

9. Analytical Sensitivity for each spores is different for Non-viable sample when the spores are read at different percentage. Analytical Sensitivity is calculated as spr/m^3 divided by raw count. spr/m^3 = raw counts x (100/ % read) x (1000/Sample volume). If Analytical Sensitivity is 13 spr/m^3 at 100% read, Analytical Sensitivity at 50% read would be 27 spr/m^3, which is 2 times higher. Analytical Sensitivity provided on the report is based on an assumed 100% of the trace being analyzed.

10. Minimum Reporting Limits (MRL) for BULKS, DUSTS, SWABS, and WATER samples are a calculation based on the sample size and the dilution plate on which the organism was counted. Results are a compilation of counts taken from multiple dilutions and multiple medias. This means that every genus of fungi or bacteria recovered can be counted on the plate on which it is best represented.

11. If the final quantitative result is corrected for contamination based on the blank, the blank correction is stated in the sample comments section of the report.

12. Analysis conducted on non-viable spore traps is completed using Indoor Environmental Standards Organization (IESO) Standard 2210.

13. The results in this report are related to this project and these samples only.

14. For samples with an air volume of < 100L, the number of significant figures in the result should be considered (2) two. For samples with air volumes between 100-999L, the number of significant figures in the result should considered (3) three. For example, a sample with a result of 55,443 spr/m^3 from a 75L sample using significant figures should be considered 55,000. The same result of 55,443 from a 150L sample using significant figures should be considered 55,400 spr/m^3.

15. If the In/Out ratio is greater than 100 times it is indicated >100/1, rather than showing the real value.

Terminology Used in Direct Exam Reporting

Conidiophores are a type of modified hyphae from which spores are born. When seen on a surface sample in moderate to numerous concentrations they may be indicative of fungal growth.

Suzanne S. Blevins, B.S., SM (ASCP)
Laboratory Director

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Lab Use: 17017868

ELITE
AZ, CA, CO, GA, VA, NJ

NVLAP
NVLAP Lab Code 200860-0 (CO)
NVLAP Lab Code 200829-0 (VA)
NVLAP Lab Code 500097-0 (AZ)
NVLAP Lab Code 201076-1 (CA)
LAB #102663 (CO)
LAB #163083 (GA)
LAB #102977 (VA)
LAB #102229 (AZ)
LAB #102747 (NJ)
LAB #218081 (CA)

Aerobiology Client	Courtice / Gnason						
Field Contact	Courtice Bowman			Collected By/Date: Courtice Bowman		Relinquished By/Date: LTB 6/12/17	
Reporting Address	1701 South Hamilton			Relinquished By/Date: LTB 6/12/17		Received By/Date: CMC 6.13.17	
Billing Address	PO Box 71			Sampler Type	Andersen ☐ SAS ☐	SampleAire ☐ AeroTrap ☐	Other ☐ BioCulture ☐
Phone/Fax	217-728-4860 / 2697			PO#/Job#: 2449			
Reporting Email (s)	courtice@countiegrason			Project Name: WASHINGTON SCHOOL			
Routine ☐	24 Hour ☐	Same Day ☐	4 Hour ☐	2 Hour ☐	5 Day (Asbestos Only) ☐	Notes: PANA USD #8	
SAMPLING LOCATION ZIP CODE	62557			CC Info:			

	Sample No.	Test Code	Sample Location	Total Volume/Area
1	7100	1054	KITCHEN	150L
2	7106		Room 5 : MRS TYRAN	
3	7107		Room 10 : MRS LAMARCHE	
4	7101		Room 13 : MRS REYNOLDS	
5	7108		OFFICE : Reception	
6	7102		Room 20 : MRS CROSS	
7	7091	1054	CUSTODE Control Sample	15.2L
8				
9	SAMPLES Collected		on 6-9-17	
10				
11				
12				
13				
14				
15				

1054	Direct, Non-viable Spore Trap	1015	Culture - WATER Legionella
1051	Direct, Qualitative- Swab/Tape	1017	Culture - SWAB Legionella
1050	Direct, Qualitative- Bulk	1010	WATER - Potable - E. coli/total coliforms
1005	AIR Culture - Bacterial Count w/ ID's	1012	SWAB - E. coli/total coliforms
1030	AIR Culture - Fungal Count w/ ID's	1028	SWAB - Sewage Screen (E. coli/Entero/fecal coliforms)
1006	SWAB Culture - Bacterial Count w/ ID's	2056	WATER - Heterotrophic Plate Count
1031	SWAB Culture - Fungal Count w/ ID's	3001	ASBESTOS - Point count
1008	BULK Culture - Bacterial Count w/ ID's	3002	ASBESTOS - PLM Analysis
1033	BULK Culture - Fungal Count w/ ID's	3003	ASBESTOS - Particle characterization
1007	WATER Culture - Bacterial Count w/ID's	3004	ASBESTOS - PCM Analysis