FOCUSED INDOOR AIR QUALITY ASSESSMENT REPORT

CLASSROOMS 119, 222, 223, 225, 204-207
COMMUNITY CONSOLIDATED SCHOOL DISTRICT 181
HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS
IES NO. 915-33

INTEGRITY
ENVIRONMENTAL SERVICES, INC.

1240 IROQUOIS DRIVE
SUITE 102
NAPERVILLE, IL 60563

630-718-9133
FAX 630-718-9114

March 1, 2018

C-12392

Mr. Mike Duggan
Director of Facilities
Community Consolidated School District 181
115 West 55th Street
Clarendon Hills, Illinois 60514

Dear Mr. Duggan:

Final Report
Indoor Air Quality Assessment
Community Consolidated School District 181
Hinsdale Middle School
100 South Garfield Avenue
Hinsdale, Illinois
IES No. 915-33

Integrity Environmental Services, Inc. has completed this final Indoor Air Quality Assessment Report for the above referenced School District facility. One (1) original and one (1) copy of the Report have been provided.

This Report has been prepared based on observations made and sample data collected during our February 22, 2018 building investigation.

Opinions made or formed, other than those expressed herein are those of the reader and in no way shall obligate Integrity Environmental Services, Inc. The findings presented in this Report are representative of the date and times that the readings were collected. The findings presented herein should not be used or relied upon to evaluate the air quality measurements obtained at significantly later dates.

If you have any questions, please feel free to contact our office at (630) 718-9133.

INTEGRITY ENVIRONMENTAL SERVICES, INC.

Guy S. Tawzer
Vice President, Air Quality Division

GST/ks

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COMMUNITY CONSOLIDATED SCHOOL DISTRICT 181
HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS
IES NO. 915-33

SECTION 1

EXECUTIVE SUMMARY

FOCUSED INDOOR AIR QUALITY ASSESSMENT REPORT
CLASSROOMS 119, 222, 223, 225, 204-207
COMMUNITY CONSOLIDATED SCHOOL DISTRICT 181
HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS
IES NO. 915-33

A. INTRODUCTION:

The following paragraphs provide a narrative description of a focused air quality investigation conducted for Community Consolidated School District 181 within the above referenced school building.

At the request of the School District, Integrity Environmental Services, Inc. (IES) was present at Hinsdale Middle School on Thursday, February 22, 2018 to collect air samples for mold spore concentrations and to conduct a visual inspection for the presence of mold within first floor classroom 119, and second floor classrooms 204, 205A, 205, 206, 207, 222, 223, and 225. The inspection was conducted due to concerns raised by the faculty regarding the air quality in these areas following a recent water intrusion event within the subject rooms resulting from the melting of ice located on the exterior of the school building. We understand that the water intrusion event occurred over multiple days and that in each room, the intruding water entered from above the ceiling and/or from below the room's perimeter wall. In each room, all standing water was quickly removed from the floor. Building maintenance staff continually monitored each room and repeatedly removed the incoming water throughout the entire span of this water intrusion event. In rooms where water was entering below the wall, baseboards were removed and the use of box fans was initiated to expedite the drying process, both in the classroom and within the interstitial wall space.

B. INSPECTION SUMMARY:

Discussions with Community Consolidated School District 181 Director of Facilities, Mr. Mike Duggan prior to sampling revealed that actions to extract the water and begin drying all impacted surfaces were immediately taken upon detection of the incoming water. While water extraction and drying procedures were swiftly implemented by the School District, concern was still raised by the school faculty and staff regarding the air quality in these areas based upon the past presence of mold within the building as a result of previous water intrusion events.

As part of our investigation, one (1) sample was collected for airborne mold spores inside each of the subject classrooms. One (1) air sample each was also collected in Classroom 212 and in Room 220A. These two (2) rooms were considered to be non-complaint areas that had not been impacted by the recent water intrusion.

A second air sample for mold spores was collected in Classroom 206, below the cabinet located along the room's north perimeter wall. The additional sample was collected from an area where moisture/water is more likely to collect and remain for a longer period, creating a greater potential for mold growth. The sample was taken through holes that were drilled into the base of the cabinet to allow airflow from box fans to circulate and dry any standing water and/or wet surfaces.

In addition, a visual inspection was conducted in each of the subject rooms, coupled with the use of a hand-held moisture meter. During this inspection, the IES representative noted the condition within each of the subject spaces.

With one (1) exception, the drywall within the water-impacted areas was shown by the moisture meter to be dry. A small area of drywall located on the southwest portion of the perimeter wall in Classroom 225 was shown by means of the moisture meter to be extremely wet. Small concentrations of visible mold were observed on a portion of the drywall located along the south wall in Classroom 222. The mold was observed on a portion the drywall located near the floor. The mold was exposed when the baseboard was removed from the subject section of the wall. IES conducted the site inspection and air sampling procedures under normal building conditions.

Sample collection began at 4:08 p.m. While several staff members were present within the school building, most students had exited the building following dismissal at the end of the school day. The weather at the time of the sampling event was overcast, windy and cold. Doors and windows throughout school building were closed. The building's HVAC system was operational and functioning at the time of this investigation.

C. SAMPLING STRATEGY:

The sampling protocols for this project were developed in conjunction with existing guidelines and recommendations presented by the American Conference of Governmental Industrial Hygienists (ACGIH), the American Industrial Hygiene Association (AIHA), and Environmental Microbiology Laboratories, Inc., a nationally recognized, AIHA proficiency-tested laboratory specializing in microbial testing.

In conjunction with our Air Quality Division, guidelines suggested by the Indoor Air Quality Association (IAQA) and Mycotech Biological, Inc. were utilized in helping determine and interpret sample data.

It should be noted that there are no current regulatory requirements governing the testing strategies and interpretation of sample data at this time. Our sampling strategy has included the incorporation of current guidelines and recommendations, as well as state-of-the-art methodologies to help define the levels of mold and related airborne bioaerosols within the subject areas of Hinsdale Middle School. IES collected representative samples within each sample location.

At each area air sample location, the IES representative collected a sample for mold spores using a particulate sampling cassette known as an "Allegro-D" disposable air monitoring cassette. With one (1) exception, the duration of each of the mold spore air samples was five (5) minutes at each sample location. The air sample collected below the cabinet in Classroom 206 was two (2) minutes in duration. A separate area sample was collected for mold spores outside the facility, on the building's northeast side. This sample was collected as a baseline or background sample.

Following collection, each air sample cassette was properly sealed, contained, and issued a separate and unique sample number. Each sample number and corresponding sample location was recorded on the laboratory's chain of custody form, prior to submittal to the laboratory for analysis.

Following collection, all samples were sent to STAT Analysis Corporation, located in Chicago, Illinois for analysis. The IES representative submitted a total of fourteen (14) area air samples for analysis of mold spores (including the required QA/QC blank). All sample locations are illustrated in Section 2, Exhibit A of this report.

Each of the air samples collected was analyzed for the presence, type, and quantity of fungal spores.

D. LABORATORY ANALYSIS SUMMARY:

MOLD SPORES –

Mold spores were found on twelve (12) of the thirteen (13) air samples collected during this investigation. Results of the air sample analysis show that only one (1) type of mold spore (the group that includes Smuts and spores from the genus Myxomycetes sp.) were found on the air samples collected inside of the school building. Three (3) types of mold spores (Ascospores, spores from the genus *Cladosporium sp.*, and spores from the group that includes Smuts/*Myxomycetes sp.*) were found on the air sample collected outside the building.

With two (2) exceptions, all reported interior mold spore concentrations were reported to be less than the corresponding exterior mold spore concentration. The laboratory analysis report states that no spores were detected on the air sample collected within Classroom 222. The analysis report also states that the concentration of spores observed on the sample collected below the cabinet in Classroom 206 was considerably higher than both interior air sample collected in the room and the corresponding sample collected outside of the building. A difference in the concentrations of spores collected from Classroom 212 and Room 220A with the concentrations of spores collected within the Classrooms impacted by the water intrusion was not observed.

All interior airborne sample concentrations of mold spores were reported to be well below the Mycotech Biological, Inc. guidelines of 650 spores per cubic meter of air (spores/m^3) for individual spore concentrations, and 2,000 spores/m^3 for total spore concentrations.

Although sample concentrations of these mold spores are considered to be within or below normal levels for the general population, persons who are sensitive and/or allergic to molds may still experience some discomfort

Refer to Section 2, Exhibit A for a drawing of all sample locations. Refer to Section 2, Exhibit B for Laboratory Analytical Results. Refer to Section 2, Exhibit C, Definitions, for additional information regarding the types of mold fungi and spores mentioned above.

E. CONCLUSIONS:

Based on our inspection, sample collection work, and laboratory analysis, Integrity Environmental Services, Inc. has made the following conclusions:

- Visible mold was identified on a portion of the drywall located in Classroom 222.

- While most of the drywall inspected was found to be dry, a small section of wet drywall was identified in Classroom 225.

- All interior area airborne mold spore sample concentrations were well below the Mycotech Biological, Inc. total spore concentration guideline of 2,000 spores/m^3, as well as the individual spore concentration guideline of 650 spores/m^3.

- All but one (1) of the collected interior concentrations of mold spores were reported to be less that the corresponding exterior concentration.

- The concentration of mold spores collected from below the cabinet in Classroom 206 was higher that both the corresponding interior and exterior concentrations of mold spores.

- All the types of mold spores found on the interior air samples are the same types of mold spores that were collected on the exterior air sample and are likely from an exterior source. These spores most likely entered the building through a doorway or window; through the HVAC system; within the ice that melted and seeped into the building, or from being brought into the building on clothing, shoes or other items.

- Results of the laboratory analysis of the collected air samples, at this time, do not indicate the existence of a mold problem within the sampled areas of school building.

F. RECOMMENDATIONS:

While laboratory results do not indicate any immediate airborne microbial air quality concern, IES recommends that the following actions be taken in an effort to minimize or eliminate any microbial presence within the Hinsdale Middle School building:

1. Continue to be pro-active with the investigation and elimination (if necessary) of any air quality concerns or reported suspect mold-like material.

2. While visible mold growth was not observed in most areas during this investigation within subject areas of the school building, any surfaces found to be water damaged or showing visible mold growth should be addressed by cleaning and disinfecting. Minimal disturbance of the contaminated surface during any cleaning or disinfecting work is necessary to prevent introduction of additional microorganisms into the air.

3. Remove and dispose of the small portion of drywall that exhibits the observed mold growth.

4. Any and all carpeting within the school should continue to be routinely vacuumed and cleaned. The use of HEPA vacuums is recommended.

5. Continue to monitor ceiling tiles and the pipes located above them for the presence of water leaks and/or condensation. The source of water stained ceiling tiles and/or other surfaces should be investigated and the source of the water/moisture should be removed.

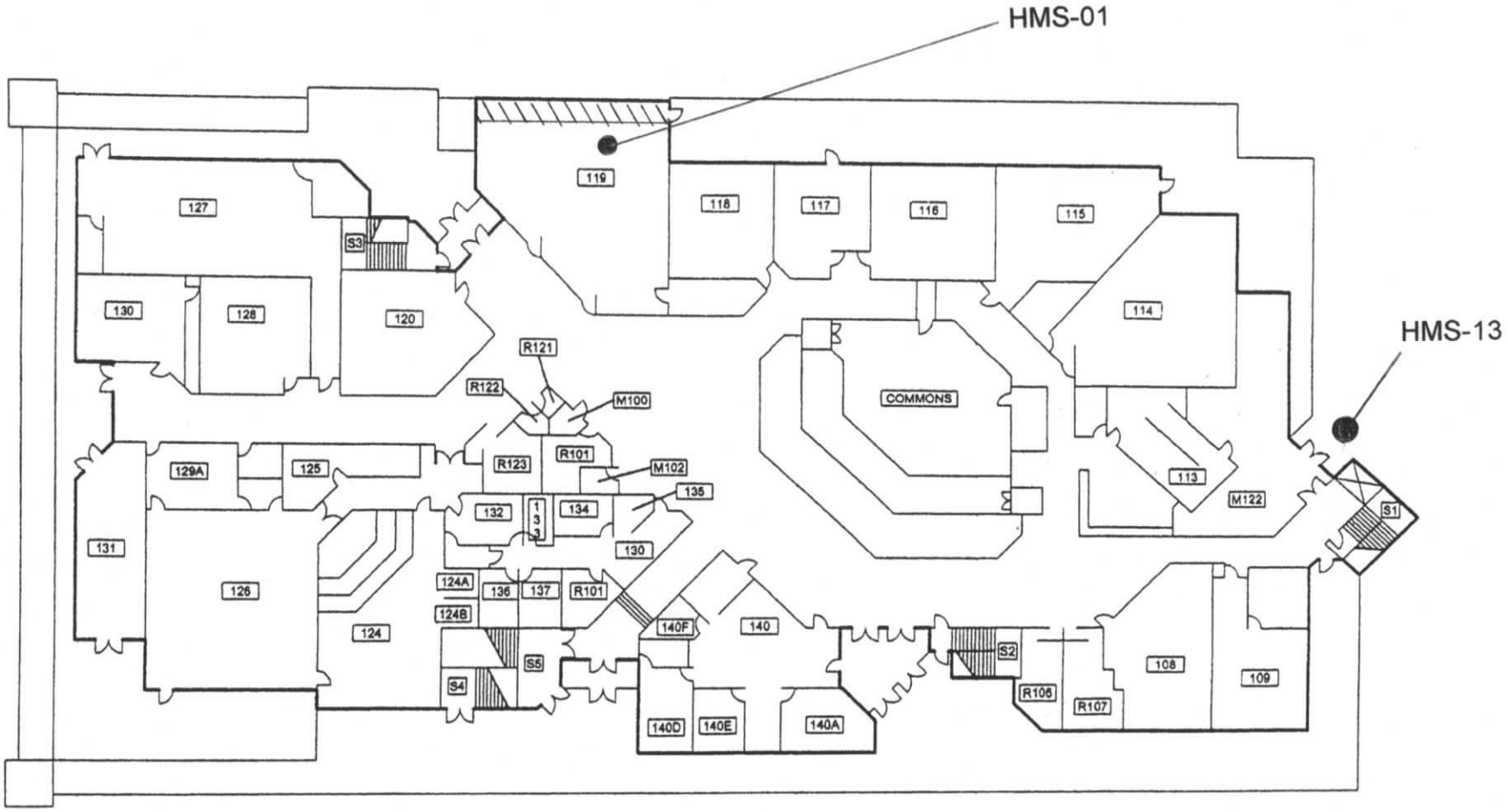
6. Wet items and/or materials should be dried as quickly as possible (24-48 hours) to prevent the likelihood of mold growth.

7. Continue to routinely clean and/or replace all HVAC filters as necessary to help maintain the levels of potential microbial and other airborne contaminants entering the building at a minimum.

8. Further investigation of spaces behind the walls within the subject areas of the school building, for evidence of moisture/water intrusion should be conducted at a time when the school building is unoccupied so that use of the subject stairway and associated vestibule will not be obstructed.

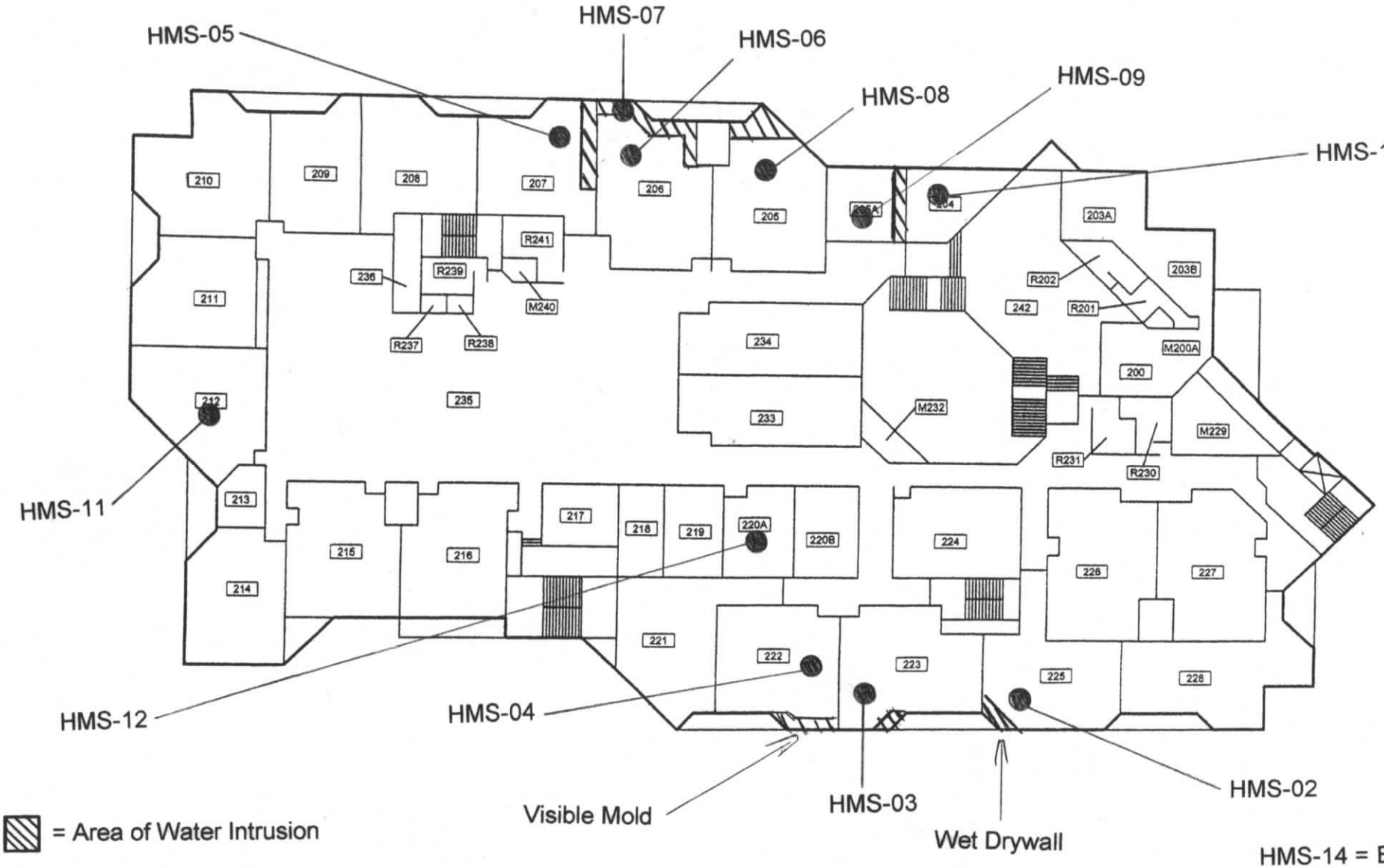
SECTION 2

EXHIBIT A



= Area of Water Intrusion

INTEGRITY ENVIRONMENTAL SERVICES, INC. 1240 IROQUOIS DRIVE, SUITE 102 NAPERVILLE, ILLINOIS 60563 (630) 7189133 (630) 7189114 (FAX)	PROJECT: HINSDALE MIDDLE SCHOOL 100 SOUTH GARFIELD AVENUE HINSDALE, ILLINOIS OWNER: COMMUNITY CONSOLIDATED SCHOOL DIST. 181 6010 SOUTH ELM STREET BURR RIDGE, ILLINOIS	DRAWN BY: GT DATE: 03/01/18 IES NO.: 915-33 NO SCALE	AIRBORNE MOLD SPORE SAMPLE LOCATION DIAGRAM NORTH FIRST FLOOR



INTEGRITY ENVIRONMENTAL SERVICES, INC. 1240 IROQUOIS DRIVE, SUITE 102 NAPERVILLE, ILLINOIS 60563 (630) 7189133 (630) 718-9114 (FAX)	PROJECT: HINSDALE MIDDLE SCHOOL 100 SOUTH GARFIELD AVENUE HINSDALE, ILLINOIS OWNER: COMMUNITY CONSOLIDATED SCHOOL DIST. 181 6010 SOUTH ELM STREET BURR RIDGE, ILLINOIS	DRAWN BY: GT DATE: 03/01/18 IES NO.: 915-33 NO SCALE	AIRBORNE MOLD SPORE SAMPLE LOCATION DIAGRAM NORTH SECOND FLOOR

EXHIBIT B

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

February 27, 2018

Integrity Environmental Services, Inc.
1240 Iroquois Drive
Naperville, IL 60563

Telephone: (630) 718-9133
Fax: (630) 718-9114

Analytical Report for STAT Work Order: 18020547 Revision 0

RE: 915-33, Hinsdale Middle School, Perimeter Classrooms

Dear Guy Tawzer:

STAT Analysis received 14 samples for the referenced project on 2/23/2018 12:30:00 PM. The analytical results are presented in the following report.

Enclosed are the analytical results for the above referenced project. The samples were analyzed as per the enclosed chain of custody.

All analyses were performed in accordance with established microbiology methodology. All Quality Control criteria as specified in the methods have been met. QA/QC documentation and raw data will remain on file for future reference. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions about the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Albio Marquez
Senior Microscopist

STAT Analysis Corporation:
2242 West Harrison St., Suite 200, Chicago, Illinois 60612-3766
Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATinfo@STATAnalysis.com

Analytical Report for Microbiological Analysis - Fungal Spores in Air

Client:	Integrity Environmental Serv	Date/Time Received:	2/23/18 12:30
Project ID:	915-33, Hinsdale Middle School Perimeter Classrooms	Date Analyzed:	2/26/2018
STAT Project No.:	18020547	Analyzed By:	AM
		QC By:	DM

Client Sample No.:	HMS-01				HMS-02				HMS-03				HMS-04			
Sample Description:	Rm 119				Rm 225				Rm 223				Rm 222			
Date Sampled:	2/22/2018				2/22/2018				2/22/2018				2/22/2018			
STAT Sample No.:	18020547-001				18020547-002				18020547-003				18020547-004			
Volume (m^3):	0.075				0.075				0.075				0.075			
	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%
Total Fungal Spores:	2	27	13	100	1	13	13	100	2	27	13	100	0			100
Alternaria																
Ascospores																
Aspergillus/Penicillium																
Basidiospores																
Botrytis																
Cercospora																
Chaetomium																
Cladosporium																
Curvularia																
Drechslera/Bipolaris																
Epicoccum																
Fusarium																
Nigrospora																
Oidium/Erysiphe																
Periconia																
Phoma																
Pithomyces																
Pleospora																
Polythrincium																
Rhizopus/Mucor																
Rusts																
Smuts/Myxomycetes	2	27		100.0	1	13		100.0	2	27		100.0				
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Unidentified Fungi																
Other																
Mycelial Fragments																
Debris Level	Moderate				Moderate				Moderate				Low			
Organic Material	Present				Present				Present				Present			

DL - Detection Limit = Spores/m^3

SOP 6110

STAT Analysis Corporation:
2242 West Harrison St., Suite 200, Chicago, Illinois 60612-3766
Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATinfo@STATAnalysis.com

Analytical Report for Microbiological Analysis - Fungal Spores in Air

Client:	Integrity Environmental Serv	Date/Time Received:	2/23/18 12:30
Project ID:	915-33, Hinsdale Middle School Perimeter Classrooms	Date Analyzed:	2/26/2018
STAT Project No.:	18020547	Analyzed By:	AM
		QC By:	DM

Client Sample No.:	HMS-05				HMS-06				HMS-07				HMS-08			
Sample Description:	Rm 207				Rm 206				Rm 206 bellow cab				Rm 205			
Date Sampled:	2/22/2018				2/22/2018				2/22/2018				2/22/2018			
STAT Sample No.:	18020547-005				18020547-006				18020547-007				18020547-008			
Volume (m^3):	0.075				0.075				0.03				0.075			
	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%
Total Fungal Spores:	4	53	13	100	1	13	13	100	9	300	33	100	3	40	13	100
Alternaria																
Ascospores																
Aspergillus/Penicillium																
Basidiospores																
Botrytis																
Cercospora																
Chaetomium																
Cladosporium																
Curvularia																
Drechslera/Bipolaris																
Epicoccum																
Fusarium																
Nigrospora																
Oidium/Erysiphe																
Periconia																
Phoma																
Pithomyces																
Pleospora																
Polythrincium																
Rhizopus/Mucor																
Rusts																
Smuts/Myxomycetes	4	53		100.0	1	13		100.0	9	300		100.0	3	40		100.0
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Unidentified Fungi																
Other																
Mycelial Fragments					1											
Debris Level	Moderate				Moderate				Moderate				Moderate			
Organic Material	Present				Present				Present				Present			

DL - Detection Limit = Spores/m^3

SOP 6110

STAT Analysis Corporation:
2242 West Harrison St., Suite 200, Chicago, Illinois 60612-3766
Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATinfo@STATAnalysis.com

Analytical Report for Microbiological Analysis - Fungal Spores in Air

Client:	Integrity Environmental Serv	Date/Time Received:	2/23/18 12:30
Project ID:	915-33, Hinsdale Middle School Perimeter Classrooms	Date Analyzed:	2/26/2018
STAT Project No.:	18020547	Analyzed By:	AM
		QC By:	DM

Client Sample No.:	HMS-09				HMS-10				HMS-11				HMS-12			
Sample Description:	Rm 205A				Rm 204				Rm 212				Rm 220A			
Date Sampled:	2/22/2018				2/22/2018				2/22/2018				2/22/2018			
STAT Sample No.:	18020547-009				18020547-010				18020547-011				18020547-012			
Volume (m^3):	0.075				0.075				0.075				0.075			
	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%
Total Fungal Spores:	5	67	13	100	2	27	13	100	1	13	13	100	3	40	13	100
Alternaria																
Ascospores																
Aspergillus/Penicillium																
Basidiospores																
Botrytis																
Cercospora																
Chaetomium																
Cladosporium																
Curvularia																
Drechslera/Bipolaris																
Epicoccum																
Fusarium																
Nigrospora																
Oidium/Erysiphe																
Periconia																
Phoma																
Pithomyces																
Pleospora																
Polythrincium																
Rhizopus/Mucor																
Rusts																
Smuts/Myxomycetes	5	67		100.0	2	27		100.0	1	13		100.0	3	40		100.0
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Unidentified Fungi																
Other																
Mycelial Fragments																
Debris Level	Moderate				Moderate				Low				Moderate			
Organic Material	Present				Present				Present				Present			

DL - Detection Limit = Spores/m^3

SOP 6110

STAT Analysis Corporation:
2242 West Harrison St., Suite 200, Chicago, Illinois 60612-3766
Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATinfo@STATAnalysis.com

Analytical Report for Microbiological Analysis - Fungal Spores in Air

Client:	Integrity Environmental Serv	Date/Time Received:	2/23/18 12:30
Project ID:	915-33, Hinsdale Middle School Perimeter Classrooms	Date Analyzed:	2/26/2018
STAT Project No.:	18020547	Analyzed By:	AM
		QC By:	DM

Client Sample No.:	HMS-13				HMS-14											
Sample Description:	Bld Ext				Blank											
Date Sampled:	2/22/2018				2/22/2018											
STAT Sample No.:	18020547-013				18020547-014											
Volume (m^3):	0.075				N/A											
	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%	Total Count	Count/ m^3	DL	%
Total Fungal Spores:	11	147	13	100	0			100				100				
Alternaria																
Ascospores	2	27		18.2												
Aspergillus/Penicillium																
Basidiospores																
Botrytis																
Cercospora																
Chaetomium																
Cladosporium	1	13		9.1												
Curvularia																
Drechslera/Bipolaris																
Epicoccum																
Fusarium																
Nigrospora																
Oidium/Erysiphe																
Periconia																
Phoma																
Pithomyces																
Pleospora																
Polythrincium																
Rhizopus/Mucor																
Rusts																
Smuts/Myxomycetes	8	107		72.7												
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Unidentified Fungi																
Other																
Mycelial Fragments																
Debris Level	Moderate				Absent											
Organic Material	Present				Absent											

DL - Detection Limit = Spores/m^3

SOP 6110

STAT Analysis Corporation
2242 West Harrison Street, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386
e-mail address: STATinfo@STATAnalysis.com

MICROBIOLOGY CHAIN OF CUSTODY RECORD

Page : 1 of 2

Client:	Integrity Environmental Serv., Inc.
Street Address:	1240 Iroquois Ave., Ste. 102
City, State, Zip:	Naperville, IL 60563
Phone:	(630) 718-9133/Cell (708) 528-1491
Fax:	(630) 718-9114
e-mail/Alt. Fax:	ies2001@sbcglobal.net
Project Number:	915-33
Project Name:	Hinsdale Middle School
Project Location:	Perimeter Classrooms
Project Manager:	Guy Tawzer
P.O. Number:	915-33

Office Use Only Below:

Work Order No.: 1802054?
Samples Acceptable: Yes: ☑ No: ☐
Analyzed By: [illegible] 2/26/18
Date/Time:
Data File:
QC By:
Reported By (Initial/Date/Time):
Verbal:
Fax/e-mail:

Turn Around Time: <1 ☐ 1 ☐ 2 ☐ 3 ☒ Viable: 6-10 ☐
Other TAT: Date Due: Time Due:

Relinquished by:	[illegible]	Date/Time: 2/22/18
Received by:	[illegible]	Date/Time: 2-23-18 / 12:20
Relinquished by:	[illegible]	Date/Time: 2-23-18 / 12:30
Received for lab by:	[illegible]	Date/Time: 2/23/18 1230
Relinquished by:		Date/Time:
Received by:		Date/Time:

Client Sample Number/Description:	Date Taken	Time Taken	Volume (Liters)	Area Wiped (Units)²	Laboratory Sample No.	Non-Viable:	Air Cassette	Direct Exam-Tape	Direct Exam-Swab	Direct Exam-Bulk	Viable:	Air Impact	Swab	Bulk	Other:
HMS-01/Rm. 119	2/22/18	16:08	75.0		001		X								
HMS-02/Rm. 225		16:23			002										
HMS-03/Rm. 223		16:50			003										
HMS-04/Rm. 222		17:00			004										
HMS-05/Rm. 207		17:17			005										
HMS-06/Rm. 206		17:30	↓		006										
HMS-07/Rm. 206 Below Cab.		17:43	30.0		007										
HMS-08/Rm. 205		17:58	75.0		008										
HMS-09/Rm. 205A		18:08			009										
HMS-10/Rm. 204		18:18			010										
HMS-11/Rm. 212		18:29			011										
HMS-12/Rm. 220A	↓	18:41	↓		012		↓								

Comments: NEED RESULTS BEFORE END OF DAY ON WED. 2-28-18.

STAT Analysis Corporation
2242 West Harrison Street, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386
e-mail address: STATinfo@STATAnalysis.com

MICROBIOLOGY CHAIN OF CUSTODY RECORD

Page : 2 of 2

Client:	Integrity Environmental Serv., Inc.
Street Address:	1240 Iroquois Ave., Ste. 102
City, State, Zip:	Naperville, IL 60563
Phone:	(630) 718-9133/Cell (708) 528-1491
Fax:	(630) 718-9114
e-mail/Alt. Fax:	ies2001@sbcglobal.net
Project Number:	915-33
Project Name:	Hinsdale Middle School
Project Location:	Perimeter Classrooms
Project Manager:	Guy Tawzer
P.O. Number:	915-33

Office Use Only Below:

Work Order No.: 1802054?

Samples Acceptable: Yes: ☒ No: ☐

Analyzed By: [signature] 2/24/18

Date/Time:

Data File:

QC By:

Reported By (Initial/Date/Time):

Verbal:

Fax/e-mail:

Turn Around Time: <1 ☐ 1 ☐ 2 ☐ 3 ☒ Viable: 6-10 ☐

Other TAT: Date Due: Time Due:

Relinquished by: [signature] Date/Time: 2/22/18

Received by: [signature] Date/Time: 2-23-18 12:30

Relinquished by: [signature] Date/Time: 2-23-18 12:30

Received for lab by: [signature] Date/Time: 2/23/18 12:30

Relinquished by: Date/Time:

Received by: Date/Time:

Client Sample Number/Description:	Date Taken	Time Taken	Volume (Liters)	Area Wiped (Units)^2	Laboratory Sample No.	Non-Viable:	Air Cassette	Direct Exam-Tape	Direct Exam-Swab	Direct Exam-Bulk	Viable:	Air Impact	Swab	Bulk	Other:
HMS-13/Bld. Ext.	2/22/18	18:58	75.0		013		X								
HMS-14/Blank	↓	—	0.0		014		X								

Comments: SEE PAGE 1 OF 2

SECTION 3

DEFINITIONS

MOLD FUNGI AND SPORES –

An estimated 100,000 species of fungi are known to exist. Fungi may be single celled or multi-cellular. Various organisms such as yeasts, mushrooms, morels, truffles, and molds are actually fungi. Fungal growth is affected by moisture, temperature, and light. All humans are exposed to fungi through inhalation and ingestion, apparently, with no ill health effects. Many fungi are used as foods and sources of drugs that help fight disease. Most fungi are saprophytic, feeding on dead and decaying organic matter. Some species of fungi, however, are known to cause infectious diseases in humans. In most cases, the fungi are unable to cause disease in persons with a healthy immune system.

Three (3) types of fungal infections exist. They are defined as:

1. Systemic Infection: Caused by the inhalation of certain fungal spores. Most of these infections produce little or no symptoms.

2. Opportunistic Infection: Limited to those with impaired immunological defenses. In this situation, infection is secondary to a primary disease. Species of *Aspergillus*, *Cladosporium*, *Mucor*, *Rhizopus* and *Cryptococcus* are common opportunistic fungi.

3. Dermatophytes: A group of fungi that infect the hair, skin and nails. Direct contact with an infected individual or the sharing of items such as grooming utensils or clothes is usually how the infection is transmitted. Transmission to humans from an environmental source is rare.

Fungi produce toxic metabolites called mycotoxins. Mycotoxins are present in both spores and viable fungi. Usually, inhalation exposure of mycotoxins occurs following the disturbance of a contaminated source.

Fungi also produce volatile organic compounds (VOCs) while growing. Some of these compounds have noticeable odors that many people find offensive. It is thought that exposure to these VOCs may be generally responsible for some building-related symptoms (BRSs).

The following is a description of each genus of fungi found within Hinsdale Middle School:

Ascospores: These spores were found on the air sample collected outside of the building. These spores were not positively identified. They are possibly from species of *Alternaria, Aspergillus, Cladosporium, or Penicillium* among others.

Cladosporium sp.: These spores were found on the air samples collected outside of the building. This fungus is commonly found both indoors and outdoors and is often located in spaces where condensation is collected and/or where there is poor ventilation. It is commonly found on the surface of fiberglass duct lining inside supply ducts. It is a common cause of allergies and hay fever and has also been associated with various skin and eye infections acquired by immune compromised individuals.

Myxomycetes: Spores were found on all but one (1) of the air samples collected both inside and outside of the building. Myxomycetes are commonly known as slime molds, but are not true molds. They are usually found outdoors on decaying plant material. They are easily dispersed by wind in their dry phase and occasionally are found in indoor environments. Under 600x microscopy, Myxomycetes are indistinguishable from smuts.

Smuts: Spores were found on all but one (1) of the air samples collected both inside and outside of the building. This allergen is a parasitic plant pathogen that needs a living host. Smuts are often found on corn, grass, weeds, flowering plants, and even other fungi. Smuts are distributed by wind. Under 600x microscopy, smuts are indistinguishable from myxomycetes.