INSPECTION REPORT

For the Property at:

3351 17TH AVE SOUTH

GRAND FORKS, ND 58201

Prepared for: CHRIS ARNOLD

Inspection Date: Friday, January 17, 2020

Prepared by: Lars Knobloch

Nordic Companies Inc
3628 Pierce Street South
Fargo, ND 58104
701-566-1446

www.nordiccompaniesinc.com
lars@nordiccompaniesinc.com

January 27, 2020

Dear Chris Arnold,

RE: Report No. 6908
3351 17th Ave South
Grand Forks, ND
58201

Our services conform to the industry standards for mold sampling and interpretation. All recommendations for mold remediation are based on IICRCs S520 Standards and Reference Guide for Professional Mold Remediation. The samples collected are analyzed by the nation's leading environmental testing firm; EMSL Analytical, Inc.
Our Consultant is a Certified Indoor Environmentalist (CIE), Certified ASHI Inspector (ACI), Certified Residential and Commercial Mold Inspector, and has 19 years experience in mold industry, inspection and construction. We do not offer contracting services; therefore, you know our opinions are unbiased. A complete mold specification can be developed by Nordic Environmental for an additional cost to help prevent mold remediation contractors from recommending an unneeded and overly expensive solution.

Thank you for your interest in Nordic Environmental. Please feel free to call should you have any questions.

Sincerely,

Lars Knobloch
on behalf of
Nordic Companies Inc

Nordic Companies Inc
3628 Pierce Street South
Fargo, ND 58104
701-566-1446
www.nordiccompaniesinc.com
lars@nordiccompaniesinc.com

AGREEMENT

3351 17th Ave South, Grand Forks, ND January 17, 2020

Report No. 6908

www.nordiccompaniesinc.com

PARTIES TO THE AGREEMENT

Company
Nordic Companies Inc
3628 Pierce Street South
Fargo, ND 58104

Client
Chris Arnold

Total Fee: $1,550.00

This is an agreement between Chris Arnold and Nordic Companies Inc.

MOLD INSPECTION AGREEMENT

The assessment is based on findings of the physical inspection and testing. Findings are current and accurate for the date and time they were found, but do not reflect expected or predictable mold growth and infestation on and within the property. The report addresses only those areas physically inspected and sampled. The Consultant is not responsible or liable for the non-discovery of any water damage, water problems, mold contamination, or other conditions of the Subject Property which may occur or may become evident after the inspection and testing time and date. The Consultant is neither an insurer nor guarantor against water problems, mold problems or other defects at the Subject Property and improvements, systems or components inspected. The Consultant makes no warranty, expressed or implied as to the fitness for use of condition of the systems or components inspected. The Consultant assumes no responsibility for the cost of repairing any water problems, mold problems or any other defects or conditions.

The property owner is the one liable for correcting the source of the problem. The Consultant is not responsible or liable for any future water problems, mold problems or any other future failures or repairs. Remediation recommendations are suggested guidelines, not a detailed remediation protocol. More or less action may be necessary and will be determined by the remediation company chosen by the property owners or other responsible party.

The client requests the inspection of the Subject Property subject to the following limitations and conditions:

1. The inspection, testing, interpretations and recommendations will be performed following current industry standards.
2. The report is an opinion of the current condition of the property, based on the testing performed, and a visual inspection of the readily accessible areas of the building, and/or areas specified by the client.
3. The client understands and agrees that the liability of Nordic Environmental, its employees and agents, is limited to the Inspection Fee.
4. The written report will be available within 7 business days of the day the testing was completed.
5. The client agrees to pay the inspection fee in full no later than the day of the assessment

I, Chris Arnold (Signature)_____, (Date)_____, have read, understood and accepted the terms of this agreement.

Recommendations and Observations

PRELIMINARY INSPECTION \ Final Conclusions

Condition: • High spore counts of Cladosporium was identified on pipe insulation and drywall in the tunnels by collecting tape-lift samples. The total of 10 air samples were collected in various classrooms and hallways in the north wing while 2 air samples were collected in the tunnels.
The results from the air samples indicate that air quality in the hallways and classrooms are not impacted by the mold condition in the tunnels. Marginally elevated levels of Cladosporium were detected in the air samples collected in the tunnels.

Condition: • We recommend that the mold be remediated by following the recommendations in the mold remedation section of this report.

VISUAL INSPECTION \ Observations

Condition: • Suspected fungal growth observed
Location: Tunnel Near Classroom 64





Condition: • Suspected fungal growth observed
Location: Tunnel Near Classroom 10




INDICATOR MEASUREMENTS \ Temperature

Condition: • 60-65F
Location: Tunnel near classroom 64

Condition: • 65-70F
Location: Tunnel near classroom 10

Condition: • 65-70F
Location: Classroom 66

Condition: • 65-70F
Location: Classroom 63

Condition: • 70-75F
Location: Northwest Hallway

Condition: • 70-75F
Location: Classroom 10

Condition: • 70-75F
Location: Classroom 14

Condition: • 70-75F
Location: Classroom 15

Condition: • 70-75F
Location: Classroom 12

Condition: • 70-75F
Location: Northeast hallway

Condition: • 70-75F
Location: Classroom 60

Condition: • 70-75F
Location: Classroom 64

INDICATOR MEASUREMENTS \ Humidity
Condition: • 10-15%
Location: Classroom 10

Condition: • 15-20%
Location: Classroom 14

Condition: • 15-20%
Location: Classroom 15

Condition: • 15-20%
Location: Classroom 12

Condition: • 15-20%
Location: Northwest Hallway

Condition: • 15-20%

Condition: • 25-30%
Location: Northeast hallway

Condition: • 25-30%
Location: Classroom 64

Condition: • 25-30%
Location: Classroom 66

Condition: • 30-35%
Location: Classroom 63

Condition: • 30-35%
Location: Classroom 60

Condition: • 35-40%
Location: Tunnel near classroom

SAMPLING \ Chain of Custody
Condition: • See Appendix

SAMPLING \ Laboratory Results
Condition: • See Appendix

SAMPLING \ Interpretations
Condition: • General Interpretation Methods.
Since mold/fungi is found widespread in any normal indoor or outdoor environment, air samples collected from suspect areas should be compared to air samples collected from the outdoors, and from non-suspect areas. A general rule is that the total spore count, and the spore count from each individual fungi collected in the outdoor sample, should be less than or close to equal to indoor samples. Higher levels of the total and/or individual fungi could indicate of a possible indoor

amplification. Some of the most common fungi that are known to be found elevated indoors due to actual microbial growth is:

Aspergillus
Chaetomium
Cladosporium
Fusarium
Penicillium
Stachybotrys
Ulocladium

As a general rule, total indoor airborne spore concentrations in a typical clean HVAC supplied building are less than the average regional outside concentrations, and/or less than approximately 2,000 cts/m3.
Aspergillus /Penicillium and other hyaline spores are on average less than 700 cts/m3. Indicator fungi such as Stachybotrys, Chaetomium, Ulocladium are often recovered in low concentrations in indoor samples as a result of normal infiltration. The presence of certain fungi indoors could be significant as they can produce mycotoxins that can cause health effects in humans and animals. The most common symptoms are cold and flu symptoms, sore throat, headache, dermatitis, diarrhea and fatigue.

REFERENCES: Environmental Analysis Associates Inc, Air-O-Cell Method Interpretation Guide 2014.

INTERPRETATIONS \ Samples with Acceptable Levels
Condition: • Sample(s) had normal or acceptable levels of airborne mold spores when comparing to the outside sample and/or most industry guidelines.

(e.g. Environmental Analysis Associates Inc, Air-O-Cell Method Interpretation Guide 2014).
Location: Classrooms and Hallways

INTERPRETATIONS \ Samples with Questionable Levels
Condition: • Sample(s) had questionable levels of air borne mold spores when comparing to the outside sample and/or statistics, and industry guidelines (e.g. Environmental Analysis Associates Inc, Air-O-Cell Method Interpretation Guide 2014).

This could indicate of a possible mold condition and/or microbial growth nearby.
Spore count of Cladosporium was questionable or marginally elevated
Location: Tunnels

MOLD REMEDIATION \ Construct Containment
Condition: • Containment shall be established around tunnel access doors.

MOLD REMEDIATION \ Engineering Controls
Condition: • The buildings air handling system shall be turned off during the mold remediation process. Contractor shall attempt to create a negative pressure in the tunnels at all times. If negative air cannot be maintained, additional air scrubbers shall be used.

Condition: • Air scrubbers with HEPA filters shall be operating in the affected areas.

MOLD REMEDIATION \ Cleaning/Removal of Mold

Condition: • Contractor shall remove pipe insulation and drywall impacted by or suspected to be impacted by fungal growth.

MOLD REMEDIATION \ Material Removal Procedures

Condition: • All removed pipe insulation and drywall must be bagged in 6-mil or greater bags. The exterior of the bag shall be wiped down and HEPA vacuumed before being removed from the tunnels. Contractor is responsible for the safe disposal of mold and other construction debris.

MOLD REMEDIATION \ Final Polishing

Condition: • Upon completion of removing and cleaning all impacted pipe insulation, the tunnels shall be cleaned. It is recommended to HEPA vacuum all surfaces.

MOLD REMEDIATION \ Products

Condition: • .

Most industry standards and guidelines discourage the use of antimicrobial products, whether designed to kill existing growth or prevent future growth. If antimicrobial products are to be used on this project, they must be EPA Registered for the specific surface to which they will be applied. If the label does not list the surface as an allowable use, the product shall not be used. If antimicrobial products are to be used, it is recommended to use those with an EPA toxicity category of IV for acute oral LD50, inhalation LC50, dermal LD50, primary eye irritation and primary skin irritation. Antimicrobial products, if used, shall be in accordance with the labeled instructions.

DEFINITIONS \ Report Definitions

Condition: • Containment or a Critical Barrier.

Typically established with the use of heavy plastic. The main goal when creating this physical barrier is to completely isolate the work area from any adjacent, non-affected areas. For example, if mold is present in one room of your home and the adjacent areas have not been affected, the room must be isolated. Depending on the layout, the doorway would be completely sealed with plastic. All HVAC systems or shared airways between other rooms would be taped or covered in plastic. In essence, any area that could allow air communication between the work area and other non-affected areas should be properly sealed.

Condition: • Negative Air Machine.

A negative air machine uses ducting to remove contaminated air from a sealed containment area. The filtered air is exhausted outside of the containment area. This creates negative air pressure (a vacuum effect), which helps limit the spread of contaminants to other areas inside the structure.

Condition: • Air Filtration Device/Air Scrubber.

An air scrubber is a portable filtration system that removes particles, gasses, and/or chemicals from the air within a given area. These machines draw air in from the surrounding environment and pass it through a series of filters to remove contaminants. The size and complexity of an air scrubber system will depend on the size of the space being serviced, as well as the range, type, and size of contaminants that must be removed from the area.

Air scrubbers are especially important on restoration jobs where airborne contaminants are present or will be created/disturbed during the restoration process, such as mold, dust, asbestos, lead, chemical fumes, etc. These hazardous particles can settle on carpet, upholstery, and furnishings, or be drawn into the HVAC system and contaminate other parts of a building.

If these contaminants are not removed, they will have a negative effect on the indoor air quality (IAQ) of the worksite. While naturally occurring particles, such as human skin cells, animal hair, and dirt, are nearly always present, toxic gases released by sewage-borne bacteria and mold spores can cause adverse human health effects when inhaled. In short, these contaminants can compromise the quality of the entire restoration job.

Condition: • HEPA vacuuming.
HEPA is a type of filter attached to a vacuum that can trap a large number of very small particles that other vacuum cleaners would simply recirculate back into the air of your home.

FUNGAL INFO \ Explanation
Condition: • Cladosporium
(Hyphomycetes) Teleomorph: Mycosphaerella (Ascomycetes) Widely distributed as plant pathogens and saprobes. It is the most frequently found fungus in outdoor air. Indoors, it usually occurs at low concentrations in damp or humid areas but may be found in high concentrations in waterdamaged building materials. Its ability to sporulate heavily and to get airborne makes it an important fungal allergen. Frequently isolated as a contaminant in foods. Only occasionally associated with disease in humans; one species can cause chronic subcutaneous infection.

Description

Attendees: • Gina Wieler. Ms. Wieler is the Safety Coordinator at Grand Forks Public Schools.

Occupancy: • Building was occupied

Building type: • Public school

Approximate age of building: • 50-55 years

Interior finishes: • Gypsum board walls • Suspended ceiling tiles • Carpet flooring

HVAC system: • The heating system is radiant hot water heat installed in tunnels below the school's floor structure. Warm air is radiating from the tunnels through supply vents installed above the tunnels throughout the building.

Inspection conducted by: • Lars Knobloch, Certfied Indoor Environmentalist (CIE)

Inspection authorized by: • Chris Arnold. Mr. Arnold is the Director of Buildings and Grounds at Grand Forks Public Schools

Scope of work: • Inspecting tunnels specified by Ms. Wieler to determine if the air in the building is impacted by the mold condition in the schools tunnels

Scope of work: • .
Collecting total spore air samples

Northwest hallway

Classroom 10

Classroom 14

Classroom 12

Classroom 15

Northeast hallway

Classroom 60

Classroom 64

Classroom 66

Classroom 63

Scope of work: • .
Sampling of surfaces via tape-lifts on suspect areas

Scope of work: • .
Measuring temperature and relative humidity indoors and outdoors

Tools and Equipment: • .
ZEFON'S BIO-PUMP PLUS - Air sampling • .
TSI AIR CALC - Measurements for Relative humidity, Carbon monoxide, Carbon dioxide, Dew point

Sampling Methodology: • .
AIRBORNE MOLD TESTING:
Airborne mold testing was performed utilizing Zefon Internationals Air-O-Cell sampling cassettes following all manufacturer-supplied recommended sampling procedures.
The Air-O-Cell is a direct-read total particulate air sampling device. It works using the inertial impaction principle similar to other spore trap devices. It is designed for the rapid collection and analysis of airborne particulate including bio-aerosols

such as mold spores, pollen, insect fragments and skin cell fragments.
The method involves drawing a known quantity of air through a sterile sampling cassette. Subsequent to sampling, the cassette is sealed and transferred to a microbiology laboratory under chain of custody protocol for microscopic analysis. This method collects and enumerates both viable and non viable mold spores.
. • .
AIR-O-CELL CASSETTE:
The Air-O-Cell spore trap cassette is used with a portable air pump (15 liters/minute for 1 to 10 minutes) to collect airborne aerosols including mold, pollen and other airborne particulates. Air is drawn through a small opening at the top of the cassette and spores are trapped on a sticky coated glass slide inside the cassette. These cassettes are efficient at collecting spores as small as 2.6m.
. • .
TAPE LIFT SAMPLE:
These samples could be collected using clear adhesive tape or an adhesive slide for microscopic examination of suspect stains, settled dust and spores. Tape lifts are an excellent, non-destructive method of sampling. The laboratory is usually able to determine if there is mold growth, a high concentration of settled spores, or just a normal background level.
.

Inspection Methods and Limitations

Statement of Limitations: • .
The following assessment is based on findings of the physical inspection and testing. Findings are current and accurate for the date and time they were found, but do not reflect expected or predictable mold growth and infestation on and within the property. This report addresses only those areas physically inspected and sampled.

Nordic Environmental is not responsible or liable for the non-discovery of any water damage, water problems, mold contamination, or other conditions of the Subject Property which may occur or may become evident after the inspection and testing time and date. Nordic Environmental is neither an insurer nor guarantor against water problems, mold problems or other defects at the Subject Property and improvements, systems or components inspected.
Nordic Environmental makes no warranty, expressed or implied as to the fitness for use of condition of the systems or components inspected. Nordic Environmental is not responsible or liable for any future water problems, mold problems or any other future failures or repairs. Remediation recommendations are suggested guidelines, not a detailed remediation protocol. More or less actions may be necessary and will be determined by the remediation company chosen by the property owners or other responsible party.

Currently there are no Federal regulations for evaluating potential health effects of fungal contamination. This information is subject to change as more information regarding fungal contaminants becomes available. This document was designed to follow currently known industry guidelines for the interpretation of microbial sampling, analysis and remediation. Since interpretation of mold analysis report is scientific work in progress, it may as such be changed without notice.

This Mold Testing Report prepared by Nordic Environmental is based on information supplied by the client and on conditions readily observable or measurable on the date of this study. Any inspection and/or testing conducted by Nordic Environmental are not meant to determine whether a building is safe or unsafe for occupants in regard to indoor air quality.
Indoor building conditions vary constantly, therefore the findings and results presented in this report should be considered relative to and representative of the conditions that existed at the time of the inspection and testing. The

results and recommendations presented herein should not be relied upon exclusively for the prevention of all possible, injuries or losses. These services are a supplement to, and not a substitute for, the clients responsibility for protecting the health and safety of employees, students, residents and others and for complying with applicable laws and regulations. Nordic Environmental warrants that its work is performed in a competent and professional manner. No other warranties are expressed or implied. • .

No outdoor sample was collected for background control due to snow coverage and low temperatures. Nordic Environmental will use statistics, experience, and samples collected from non-suspected contaminated areas to interpret the results of the air samples.

END OF REPORT

OrderID: 162001312

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

162001312
EMSL Order Number (*Lab Use Only*):

EMSL ANALYTICAL, INC.
14375 23RD AVE NORTH
MINNEAPOLIS, MN 55447
PHONE: (763) 449-4922
FAX:(763) 449-4924

Company : Nordic Companies	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different please note in Comments**
Street: 3628 Pierce Street S	*Third Party Billing requires written authorization from third party*
City: Fargo **State/Province:** ND	**Zip/Postal Code:** 58104 **Country:** USA
Report To (Name): Lars Knobloch	**Fax #:**
Telephone #: 701-566-1446	**E-mail Address:** lars@nordiccompaniesinc.com; miranda@nordiccompaniesinc.com
Project Name/ Number: CENTURY ELEMENTARY	
Please Provide Results: ☐ Fax ☒ E-mail	**PO#** **State Samples Taken:**

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☒ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

Non Culturable Air Samples (Spore Traps)

- **M001** Air-O-Cell
- **M049** BioSIS
- **M030** Micro 5
- **M173** Allegro M2
- **M003** Burkard
- **M174** MoldSnap
- **M004** Allergenco
- **M043** Cyclex
- **M176** Relle Smart
- **M032** Allergenco-D
- **M002** Cyclex-d
- **M130** Via-Cell
- **M172** Versa Trap

Other Microbiology Test Codes

- **M041** Fungal Direct Examination
- **M005** Viable Fungi ID and Count
- **M006** Viable Fungi ID and Count (Speciation)
- **M007** Culturable Fungi
- **M008** Culturable Fungi (Speciation)
- **M009** Gram Stain Culturable Bacteria
- **M010** Bacterial Count and ID – 3 Most Prominent
- **M011** Bacterial Count and ID – 5 Most Prominent
- **M013** Sewage Contamination in Buildings
- **M014** Endotoxin Analysis
- **M015** Heterotrophic Plate Count
- **M180** Real Time Q-PCR-ERMI 36 Panel
- **M018** Total Coliform (Membrane Filtration)
- **M020** Fecal *Streptococcus* (Membrane Filtration)
- **M210-215** *Legionella* Detection
- **M026** Recreational Water Screen
- **M027** Mycotoxin Analysis
- **M029** *Enterococci*
- **M019** Fecal Coliform
- **M133** MRSA Analysis
- **M028** *Cryptococcus neoformans* Detection
- **M120** *Histoplasma capsulatum* Detection
- **M033-39** Allergen Testing
- **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
- **Other** See Analytical Price Guide

Preservation Method (Water):

Name of Sampler: Lars Knobloch **Signature of Sampler:**

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
2860 9298	NW HALLWAY	AIR	M001	150L	11/17/20 11:05am
2860 9289	CLASS ROOM 10			150L	11:20am
2860 9551	CLASS ROOM 14				11:30am
2860 9285	CLASS ROOM 15				11:40am
2860 9283	CLASS ROOM 12				11:55am
2860 9315	NE HALLWAY				12:05pm
2860 9282	CLASS ROOM 60				12:15pm
2860 9387	CLASS ROOM 64				12:30pm
2860 9308	CLASS ROOM 66				12:40pm
2860 9296	CLASS ROOM 63				12:50pm

Client Sample # (s): **Total # of Samples:** 14

Relinquished (Client): **Date:** 11/17/20 **Time:**

Received (Client): **Date:** **Time:**

Comments:

RECEIVED
EMSL ANALYTICAL, INC.
INDIANAPOLIS, IN
2020 JAN 21 A 8:43

Controlled Document – Microbiology COC – R2 – 1/12/2010

OrderID: 162001312

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (*Lab Use Only*):

EMSL ANALYTICAL, INC.
14375 23RD AVE NORTH
MINNEAPOLIS, MN 55447
PHONE: (763) 449-4922
FAX:(763) 449-4924

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
2860 9316	TUNNEL NEAR ROOM 64	AIR	M001	45L	11/17/20 1:00pm
001	PIPE INSULTATION 64	TAPE	M041	—	11/17/20 1:15pm
2860 9303	TUNNEL NEAR ROOM 10	AIR	M001	45L	11/17/20 1:25pm
002	DRYWALL TUNNEL ROOM10	TAPE	M041	—	11/17/20 1:30pm

**Comments/Special Instructions

Page 2 of 2 pages

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EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162001312
Customer ID: NORD25
Customer PO:
Project ID:

Attn: Lars Knobloch
Nordic Environmental
3628 Pierce St. South
Fargo, ND 58104

Phone: (701) 566-1446
Fax:
Collected: 01/17/2020
Received: 01/21/2020
Analyzed: 01/21/2020 - 01/24/2020

Project: CENTURY ELEMENTARY

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	162001312-0001			162001312-0002			162001312-0003		
Client Sample ID:	2860 9298			2860 9289			2860 9551		
Volume (L):	150			150			150		
Sample Location	NW HALLWAY			CLASSROOM 10			CLASSROOM 14		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	1*	7*	1.5	-	-	-	1*	7*	1.5
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	7	200	42.2	2	40	12.1	1	20	4.3
Basidiospores	1	20	4.2	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	10	220	46.4	11	240	72.7	20	440	94.2
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1	20	6.1	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1*	7*	1.5	2*	10*	3	-	-	-
Pithomyces++	1	20	4.2	-	-	-	-	-	-
Rust	-	-	-	1	20	6.1	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**21**	**474**	**100**	**17**	**330**	**100**	**22**	**467**	**100**
Hyphal Fragment	-	-	-	1	20	-	-	-	-
Insect Fragment	1*	7*	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	22	-	-	22	-	-	22	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Nathan Husted, Microbiology Laboratory Manager
or other approved signatory

Samples received in good condition unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LLC--EMLAP Accredited #157245

Initial report from: 01/21/2020 17:25:57

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162001312
Customer ID: NORD25
Customer PO:
Project ID:

Attn: Lars Knobloch
Nordic Environmental
3628 Pierce St. South
Fargo, ND 58104

Phone: (701) 566-1446
Fax:
Collected: 01/17/2020
Received: 01/21/2020
Analyzed: 01/21/2020 - 01/24/2020

Project: CENTURY ELEMENTARY

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	162001312-0004			162001312-0005			162001312-0006		
Client Sample ID:	2860 9285			2860 9283			2860 9315		
Volume (L):	150			150			150		
Sample Location	CLASSROOM 15			CLASSROOM 12			NE HALLWAY		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	1*	7*	1.1	-	-	-
Ascospores	2	40	4.1	2	40	6.4	2	40	11.2
Aspergillus/Penicillium	3	70	7.2	5	100	15.9	7	200	56
Basidiospores	1	20	2.1	-	-	-	1	20	5.6
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	37	810	83.8	22	480	76.6	4	90	25.2
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	1*	7*	0.7	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1	20	2.1	-	-	-	1*	7*	2
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**45**	**967**	**100**	**30**	**627**	**100**	**15**	**357**	**100**
Hyphal Fragment	2	40	-	-	-	-	1	20	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	22	-	-	22	-	-	22	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Nathan Husted

Nathan Husted, Microbiology Laboratory Manager or other approved signatory

No discernable field blank was submitted with this group of samples.

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Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LLC--EMLAP Accredited #157245

Initial report from: 01/21/2020 17:25:57

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EMSL Order: 162001312
Customer ID: NORD25
Customer PO:
Project ID:

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Nordic Environmental
3628 Pierce St. South
Fargo, ND 58104

Phone: (701) 566-1446
Fax:
Collected: 01/17/2020
Received: 01/21/2020
Analyzed: 01/21/2020 - 01/24/2020

Project: CENTURY ELEMENTARY

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	162001312-0007			162001312-0008			162001312-0009		
Client Sample ID:	2860 9282			2860 9387			2860 9308		
Volume (L):	150			150			150		
Sample Location	CLASSROOM 60			CLASSROOM 64			CLASSROOM 66		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1	20	6.3	-	-	-	1	20	20
Aspergillus/Penicillium	9	200	62.5	3	70	24.1	2	40	40
Basidiospores	-	-	-	1	20	6.9	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	6	100	31.3	9	200	69	3*	20*	20
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	1	20	20
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**16**	**320**	**100**	**13**	**290**	**100**	**7**	**100**	**100**
Hyphal Fragment	1	20	-	1	20	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	22	-	-	22	-	-	22	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Nathan Husted

Nathan Husted, Microbiology Laboratory Manager or other approved signatory

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Phone: (701) 566-1446
Fax:
Collected: 01/17/2020
Received: 01/21/2020
Analyzed: 01/21/2020 - 01/24/2020

Project: CENTURY ELEMENTARY

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	162001312-0010			162001312-0011			162001312-0012		
Client Sample ID:	2860 9296			2860 9316			2860 9303		
Volume (L):	150			45			45		
Sample Location	CLASSROOM 63			TUNNEL NEAR ROOM 64			TUNNEL NEAR ROOM 10		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	1*	20*	22.2
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	5	100	19.8	12	870	31.4	-	-	-
Basidiospores	1*	7*	1.4	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	18	390	77.4	26	1900	68.6	1	70	77.8
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1*	7*	1.4	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**25**	**504**	**100**	**38**	**2770**	**100**	**2**	**90**	**100**
Hyphal Fragment	1	20	-	-	-	-	1	70	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	22	-	-	73	-	-	73	-
Analyt. Sensitivity 300x	-	7*	-	-	22*	-	-	22*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Nathan Husted, Microbiology Laboratory Manager
or other approved signatory

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Phone:	(701) 566-3257
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Collected:	01/17/2020
Received:	01/21/2020
Analyzed:	01/21/2020

Proj: CENTURY ELEMENTARY

Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number	Client Sample ID	Location	Fungal Identification	Category
162001312-0013	001	PIPE INSULATION 64	Cladosporium	*High*
162001312-0014	002	DRYWALL TUNNEL ROOM 10	Cladosporium	High

No discernable field blank was submitted with this group of samples.

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut
* = Sample contains fruiting structures and/or hyphae associated with the spores.
- Denotes Not Detected

Category	Count/area Analyzed
Rare	1 to 10
Low	11 to 100
Medium	101 to 1000
High	> 1000

Nathan Husted, Microbiology Lab Manager
or Other Approved Signatory

Initial report from: 01/21/2020 17:25:48

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Test Report DEVER2-7.50.2 Printed: 1/24/2020 08:48:37AM

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