

EHC ASSOCIATES

ENVIRONMENTAL CONSULTANTS & ABATEMENT CONTRACTORS

March 24, 2021

PA HIC # 195

Schuylkill Valley School District
929 Lake Shore Drive
Leesport, PA 19533

Attn: Mr. Casey Blankenbiller

Re: Spore Trap Air & Swab Sampling Services
929 Lake Shore Drive, Leesport, PA
Computer Lab Room D-31
EHC Project No.: 210141-001

Dear Mr. Blankenbiller:

Please find the attached laboratory analysis report for your review. Samples were collected at the above-referenced property on March 22, 2021.

Spore trap air samples were collected from the following locations:

- Sample 01 - (3146 9309) – Room D-31 – Center of Room;
- Sample 02 - (3146 9315) – Outside – Baseline, Outside Visitor's Entrance;

Swab samples were collected from the following locations inside Room D-31:

- Sample 03 - Stainless Sink Countertop
- Sample 04 - Wooden Shelf @ Rear of Room
- Sample 05 - Desktop Near Tack Board

At the current time, there are no established "safe" levels of mold spores in regard to indoor mold spore levels. However, the general consensus among experts in the industry is that interior spore levels should be generally equal to or lower than the levels found outside of a home or building.

As indicated on the enclosed report, at the time of sampling, the airborne spore trap counts are currently within acceptable ranges (indoor compared to outdoor), and the surface swab results were all non-detect for fungi.

2502 HORSESHOE ROAD, LANCASTER, PA 17601 ♦ 717-656-3008 ♦ FAX: 717-656-7134
EMAIL: OFFICE@EHCASSOCIATES.COM ♦ WWW.EHCASSOCIATES.COM

No visible mold growth was observed at the time of sampling. In order to prevent microbial growth, the building should be inspected frequently for pipe leaks or for signs of water intrusion and repaired and dried promptly if discovered.

Please contact my office with questions or concerns, or if additional information is needed.

Sincerely,



Rick Dom
Project Manager

Encl's.: Laboratory Analysis Report
Invoice No. 210141-001

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Environmental Design • Consulting • Surveys • IAQ • Monitoring • Abatement • Duct Cleaning • Demolition • Remediation
Specializing in the removal of Asbestos, Lead, Mold and other hazards in the built environment since 1983.



#21009711

Analysis Report prepared for

EHC Associates, Inc.

2502 Horseshoe Rd
Lancaster, PA 17601

Phone: (717) 656-3008

210141-001
Schuylkill Valley School District
929 Lake Shore Dr.
Leesport, PA 19535

Collected: **March 22, 2021**
Received: **March 23, 2021**
Reported: **March 23, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 5 samples by FedEx in good condition for this project on March 23rd, 2021.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

A handwritten signature in black ink that reads 'Stephen N. Hayes'.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



Lab ID: #188863



DPH License: #PH-0198

| Sample Number | 1 31469309 | | | 2 31469315 | | | | |
|-------------------------|-----------------------------|------------------------|-------------------|--|------------------------|------------|--|--|
| Sample Name | Classroom D-31 Computer Lab | | | Outside Baseline, Outside Visitor's Entrance | | | | |
| Sample Volume | 75.00 liter | | | 75.00 liter | | | | |
| Reporting Limit | 13 spores/m ³ | | | 13 spores/m ³ | | | | |
| Background | 1 | | | 2 | | | | |
| Fragments | ND | | | ND | | | | |
| | Pollen | Dander | Fiber | Pollen | Dander | Fiber | | |
| | ND | 173/m ³ | 13/m ³ | 27/m ³ | 67/m ³ | ND | | |
| Organism | Raw Count | Count / m ³ | % of Total | Raw Count | Count / m ³ | % of Total | | |
| Alternaria | | | | | | | | |
| Ascospores | 1 | 13 | 100.0% | 12 | 160 | 66.7% | | |
| Aspergillus Penicillium | | | | | | | | |
| Basidiospores | | | | 5 | 67 | 27.8% | | |
| Bipolaris Drechslera | | | | | | | | |
| Chaetomium | | | | | | | | |
| Cladosporium | | | | 1 | 13 | 5.6% | | |
| Curvularia | | | | | | | | |
| Epicoccum | | | | | | | | |
| Fusarium | | | | | | | | |
| Memnoniella | | | | | | | | |
| Myxomycetes | | | | | | | | |
| Pithomyces | | | | | | | | |
| Stachybotrys | | | | | | | | |
| Stemphylium | | | | | | | | |
| Torula | | | | | | | | |
| Ulocladium | | | | | | | | |
| Total | 1 | 13 | 100% | 18 | 240 | 100% | | |

Water Damage Indicator Common Allergen Slightly Higher than Baseline Significantly Higher than Baseline Ratio Abnormality



Collected: Mar 22, 2021

Received: Mar 23, 2021

Reported: Mar 23, 2021

Project Analyst: Ramesh Poluri, PhD *P. Ramesh*

Date: 03 - 23 - 2021

Reviewed By: Steve Hayes, BSMT *Stephen A. Hayes*

Date: 03 - 23 - 2021

Rick Dom
EHC Associates, Inc.
2502 Horseshoe Rd
Lancaster, PA 17601
(717) 656-3008

210141-001
Schuylkill Valley School District
929 Lake Shore Dr.
Leesport, PA 19535

#21009711

Direct Analysis +
SOP - HMC#102

| #3 | Swab (1.00 cm2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
|-------------------------------------|-----------------|-------------------|----------------|-------------------|-----------|---------|
| Swab - Stainless Sink Counter Top | | No Fungi Detected | | | | |
| Reporting Limit: 1 spore/cm2 | | | | | | |
| #4 | Swab (1.00 cm2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
| Swab - Wooden Shelf at Rear of Room | | No Fungi Detected | | | | |
| Reporting Limit: 1 spore/cm2 | | | | | | |
| #5 | Swab (1.00 cm2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
| Swab - Desk Top Near Tack Board | | No Fungi Detected | | | | |
| Reporting Limit: 1 spore/cm2 | | | | | | |



Collected: Mar 22, 2021

Received: Mar 23, 2021

Reported: Mar 23, 2021

Project Analyst:
Ramesh Poluri, PhD

P. Ramesh

Date:
03 - 23 - 2021

Reviewed By:
Steve Hayes, BSMT

Stephen A. Hayes

Date:
03 - 23 - 2021

Spore Trap Information

| | | | | | | | | | | | |
|--|---|---|-----------------|--|-------------------------------|---|------------------------------------|---|-------------------|--|--|
| Reporting Limit | The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated. | | | | | | | | | | |
| Blanks | Results have not been corrected for field or laboratory blanks. | | | | | | | | | | |
| Background | <p>The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of <i>Aspergillus</i> and <i>Penicillium</i> may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:</p> <p>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</p> <p>1 : <5% of field occluded. No spores will be uncountable.</p> <p>2 : 5-25% of field occluded.</p> <p>3 : 25-75% of field occluded.</p> <p>4 : 75-90% of field occluded.</p> <p>5 : >90% of field occluded. Suggested recollection of sample.</p> | | | | | | | | | | |
| Fragments | Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification. | | | | | | | | | | |
| Control Comparisons | There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments. | | | | | | | | | | |
| <table border="1"> <tr> <td>Water Damage Indicator</td> <td>Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.</td> </tr> <tr> <td>Common Allergen</td> <td>Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.</td> </tr> <tr> <td>Slightly Higher than Baseline</td> <td>Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.</td> </tr> <tr> <td>Significantly Higher than Baseline</td> <td>Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.</td> </tr> <tr> <td>Ratio Abnormality</td> <td>Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.</td> </tr> </table> | Water Damage Indicator | Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem. | Common Allergen | Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors. | Slightly Higher than Baseline | Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination. | Significantly Higher than Baseline | Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination. | Ratio Abnormality | Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors. | |
| Water Damage Indicator | Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem. | | | | | | | | | | |
| Common Allergen | Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors. | | | | | | | | | | |
| Slightly Higher than Baseline | Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination. | | | | | | | | | | |
| Significantly Higher than Baseline | Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination. | | | | | | | | | | |
| Ratio Abnormality | Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors. | | | | | | | | | | |
| Color Coding | Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators. | | | | | | | | | | |

| Spore Estimate | | Percentages |
|----------------|-------------------------|-------------|
| ND | None Detected | 0% |
| Rare | Less than 10 spores | < 1% |
| Light | 10 - 99 spores | 1-10% |
| Moderate | 100 - 999 spores | 11-25% |
| Heavy | 1000 - 9999 spores | 26-50% |
| Very Heavy | 10000 or greater spores | 51-100% |

| Mycelial Estimate | |
|-------------------|--|
| ND | None Detected No active growth at site. |
| Trace | Very small amount of Mycelium Probably no active growth at site. |
| Few | Some Mycelium Possible active growth at site. |
| Many | Large amount of Mycelium Probable active growth at site. |

Organism Descriptions

| | |
|-------------------|--|
| Ascospores | Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report. |
| | Effects: Health affects are poorly studied, but many are likely to be allergenic. |

| | |
|----------------------|---|
| Basidiospores | Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings. |
| | Effects: Common allergens and are also associated with hypersensitivity pneumonitis. |

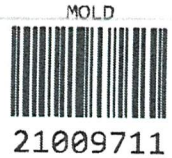
| | |
|---------------------|---|
| Cladosporium | Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts. |
| | Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis. |



Company: EHC Associates, Inc.
 Address: 2502 Horseshoe Rd.
Laurelton, PA 17601

P

SHIP: FEDEX - PAK 50
 DATE: 03-23-2021



Job Number: 21041-001
 Collector: RICK DOM
 Date Collected: 03
 Job Name: Schuylkill Valley School District
929 Lake Shore Dr
Leesport, PA 19533

Mobile: _____ Email: _____
 Note: _____

| Analysis Type | Analysis Description | Turnaround | Accepted Media Types | |
|---------------|----------------------|--|----------------------|--|
| Spore Trap | S | Identification & Enumeration of Fungal Spores | 24 Hour | Air Cassettes, Impact Slides |
| | S+ | Spore Trap Analysis with Dander, Fiber, and Pollen counts | 24 Hour | Air Cassettes, Impact Slides |
| Direct ID | D | ID & Semi-Quantative Enumeration of spores and mycelium | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| | D+ | Direct Analysis with Fully Quantitative spore count | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| Culture | C1 | Identification & Enumeration of Mold only | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C2 | Identification & Enumeration of Bacteria only | 4 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C3 | Identification & Enumeration of Mold and Bacteria | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C5 | Coliform Screen for Sewage Bacteria | 2 Day | Agar Plate, Swab, Bulk |
| Particle | TPA | Total Particulate Analysis, ID & Count (Does Not Include Mold) | 24 Hour | Air Cassettes, Impact Slides, Bio-Tape |

3/23/21

| # | Number | Sample | Analysis | Volume | Notes |
|----|-----------|---|----------|--------|-------|
| 1 | 3146 9309 | Classroom D-31 Computer Lab | ST | 75 l | |
| 2 | 3146 9315 | Outside - Base line, outside Visitor's Entrance | ST | 75 l | |
| 3 | - | Stainless Sink counter top | D+ | - | |
| 4 | - | Wooden Shelf @ rear of room | D+ | - | |
| 5 | - | Desk Top Near Tack Board | D+ | - | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

Released by: [Signature] Date: 03/22/2021 Received By: [Signature] Date: 3/23/21

EHC ASSOCIATES

ENVIRONMENTAL CONSULTANTS & ABATEMENT CONTRACTORS

August 5, 2021

PA HIC # 195

Schuylkill Valley School District
929 Lake Shore Drive
Leesport, PA 19533

Attn: Casey Blankenbiller

Re: Spore Trap Air & Swab Sampling Services
Rooms D-31 & C-6
EHC Project No.: 210141-002

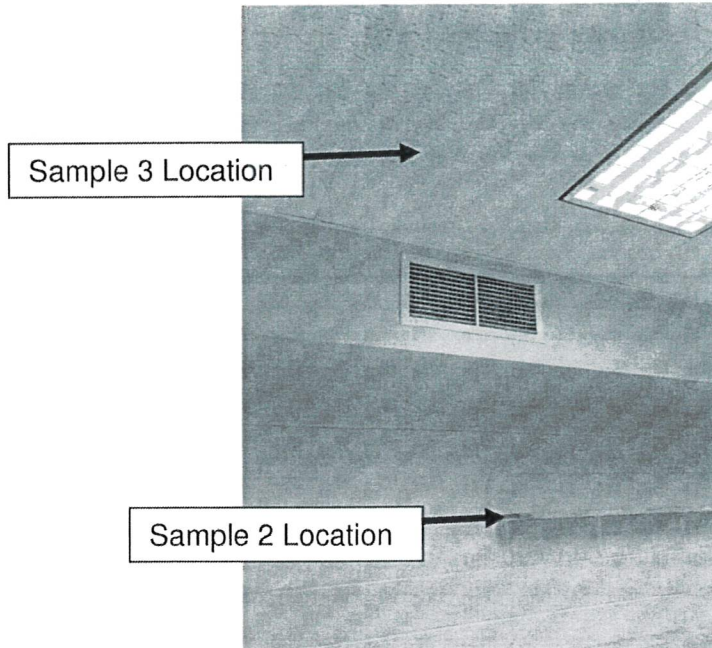
Dear Mr. Blankenbiller:

Please review the attached laboratory analysis report in regard to the spore trap air sampling performed at the above-referenced property on August 3, 2021. Air samples were collected from the following locations:

- Sample 01 – Air – D-31 Center of Room
- Sample 02 – Swab – D-31 Elevated Book Shelf
- Sample 03 – Swab - D-31 Ceiling Tile Rear of Room
- Sample 04 – Air – C-6 Center of Room
- Sample 05 – Outside

At the current time, there are no established “safe” levels of mold spores in regard to indoor mold spore levels. However, the general consensus among experts in the industry is that interior spore levels should be generally equal to the levels found outside of a home or building.

Laboratory analysis of the two swab samples (Samples 2 & 3) indicate that elevated levels of Cladosporium were present on the elevated book shelf and ceiling tiles in the back of the room (near the vent). Please refer to the below picture for sample locations. The air sample analysis shows at the time of sampling, the spore counts are currently within acceptable ranges (indoor compared to outdoor).



The federal EPA has developed the ERMI (Environmental Relative Moldiness Index) based on a study of over 700 homes. Cladosporium is considered a common allergen.

At the time of inspection, mold growth was observed on the elevated wooden shelf (Sample 2), and on the ceiling tiles near the vents (Sample 3). There were multiple ceiling tiles in the room that showed suspect mold growth.

At this time, since the air sample results did not reveal elevated airborne mold spores, we recommend removal and replacement of the mold impacted ceiling tiles (approximately 4-5 tiles), and thorough cleaning of the vent covers. We also recommend the removal of the mold containing wooden shelf, and either replaced, or treated with an anti-microbial and polyurethane sealant.

Please contact my office with questions or concerns.

Sincerely,


Mark Andrechik
Inspector

Encl's.: Laboratory Analysis Report
Invoice 210141-002



#21028107

Analysis Report prepared for

EHC Associates, Inc.

2502 Horseshoe Rd
Lancaster, PA 17601

Phone: (717) 656-3008

210141-002
SVSD - High School

Collected: August 3, 2021
Received: August 4, 2021
Reported: August 4, 2021

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 5 samples by FedEx in good condition for this project on August 4th, 2021.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

A handwritten signature in black ink that reads 'Stephen N. Hayes'.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



Lab ID: #188863



DPH License: #PH-0198

Mark Andrechik
 EHC Associates, Inc.
 2502 Horseshoe Rd
 Lancaster, PA 17601
 (717) 656-3008

210141-002
 SVSD - High School

#21028107

Spore Trap +
 SOP - #HMC101

| Sample Number | 1 31887095 | | | 4 31887116 | | | 5 31887069 | | |
|-------------------------|--------------------------|------------------------|-------------------|--------------------------|------------------------|--------------------|--------------------------|------------------------|-------------------|
| Sample Name | D-31 - Center of Room | | | L-6 Center of Room | | | Outside | | |
| Sample Volume | 75.00 liter | | | 75.00 liter | | | 75.00 liter | | |
| Reporting Limit | 13 spores/m ³ | | | 13 spores/m ³ | | | 13 spores/m ³ | | |
| Background | 1 | | | 2 | | | 3 | | |
| Fragments | ND | | | ND | | | ND | | |
| | Pollen | Dander | Fiber | Pollen | Dander | Fiber | Pollen | Dander | Fiber |
| | ND | 40/m ³ | 13/m ³ | 13/m ³ | 1120/m ³ | 120/m ³ | 27/m ³ | 67/m ³ | 13/m ³ |
| Organism | Raw Count | Count / m ³ | % of Total | Raw Count | Count / m ³ | % of Total | Raw Count | Count / m ³ | % of Total |
| Alternaria | | | | | | | | | |
| Ascospores | | | | 6 | 80 | 33.3% | 130 | 1733 | 29.8% |
| Aspergillus Penicillium | 2 | 27 | 100.0% | 4 | 53 | 22.2% | 170 | 2267 | 39.0% |
| Basidiospores | | | | 2 | 27 | 11.1% | 84 | 1120 | 19.3% |
| Bipolaris Drechslera | | | | | | | | | |
| Chaetomium | | | | | | | | | |
| Cladosporium | | | | 5 | 67 | 27.8% | 8 | 107 | 1.8% |
| Curvularia | | | | | | | | | |
| Epicoccum | | | | | | | 1 | 13 | <1% |
| Fusarium | | | | | | | | | |
| Memnoniella | | | | | | | | | |
| Myxomycetes | | | | 1 | 13 | 5.6% | 1 | 13 | <1% |
| Pithomyces | | | | | | | | | |
| Stachybotrys | | | | | | | | | |
| Stemphylium | | | | | | | | | |
| Torula | | | | | | | | | |
| Ulocladium | | | | | | | | | |
| Polythrincium | | | | | | | 42 | 560 | 9.6% |
| Total | 2 | 27 | 100% | 18 | 240 | 100% | 436 | 5813 | 100% |

Water Damage Indicator Common Allergen Slightly Higher than Baseline Significantly Higher than Baseline Ratio Abnormality



Collected: Aug 3, 2021

Received: Aug 4, 2021

Reported: Aug 4, 2021

Project Analyst:
 Connor Gailliot, BS

Date:
 08 - 04 - 2021

Reviewed By:
 Steve Hayes, BSMT

Date:
 08 - 04 - 2021

3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112

(804) 562-3435

contact@hayesmicrobial.com

Page: 2 of 7

Mark Andrechik
EHC Associates, Inc.

2502 Horseshoe Rd
Lancaster, PA 17601
(717) 656-3008

210141-002
SVSD - High School

#21028107

Direct Analysis +
SOP - HMC#102

| #2 | Swab (2.00 in2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
|----|-------------------------------------|--------------|----------------|-------------------|-----------|---------|
| | Swab - D-31 - Elevated Wooden Shelf | Cladosporium | Moderate | Few | 130 | 100% |

Reporting Limit: 1 spore/in2

| #3 | Swab (2.00 in2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
|----|---|--------------|----------------|-------------------|-----------|---------|
| | Swab - D-31 - Ceiling Tile Rear of Room | Cladosporium | Heavy | Many | 1600 | 100% |

Reporting Limit: 1 spore/in2



Collected: Aug 3, 2021

Received: Aug 4, 2021

Reported: Aug 4, 2021

Project Analyst:
Connor Gailliot, BS

Date:
08 - 04 - 2021

Reviewed By:
Steve Hayes, BSMT

Date:
08 - 04 - 2021

3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112

(804) 562-3435

contact@hayesmicrobial.com

Page: 3 of 7

Spore Trap Information

| | |
|--|--|
| Reporting Limit | The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated. |
| Blanks | Results have not been corrected for field or laboratory blanks. |
| Background | <p>The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:</p> <p>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</p> <p>1 : <5% of field occluded. No spores will be uncountable.</p> <p>2 : 5-25% of field occluded.</p> <p>3 : 25-75% of field occluded.</p> <p>4 : 75-90% of field occluded.</p> <p>5 : >90% of field occluded. Suggested recollection of sample.</p> |
| Fragments | Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification. |
| Control Comparisons | There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments. |
| <p>Water Damage Indicator</p> <p>Common Allergen</p> <p>Slightly Higher than Baseline</p> <p>Significantly Higher than Baseline</p> <p>Ratio Abnormality</p> | <p>Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.</p> <p>Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.</p> <p>Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.</p> <p>Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.</p> <p>Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.</p> |
| Color Coding | Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators. |

Direct Analysis Information

| Spore Estimate | | Percentages |
|----------------|-------------------------|-------------|
| ND | None Detected | 0% |
| Rare | Less than 10 spores | < 1% |
| Light | 10 - 99 spores | 1-10% |
| Moderate | 100 - 999 spores | 11-25% |
| Heavy | 1000 - 9999 spores | 26-50% |
| Very Heavy | 10000 or greater spores | 51-100% |

| Mycelial Estimate | |
|-------------------|--|
| ND | None Detected No active growth at site. |
| Trace | Very small amount of Mycelium Probably no active growth at site. |
| Few | Some Mycelium Possible active growth at site. |
| Many | Large amount of Mycelium Probable active growth at site. |

Organism Descriptions

| | |
|-------------------|--|
| Ascospores | Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report. |
| | Effects: Health affects are poorly studied, but many are likely to be allergenic. |

| | |
|--------------------------------|---|
| Aspergillus Penicillium | Habitat: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates. |
| | Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions. |

| | |
|----------------------|---|
| Basidiospores | Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings. |
| | Effects: Common allergens and are also associated with hypersensitivity pneumonitis. |

| | |
|---------------------|---|
| Cladosporium | Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts. |
| | Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis. |

| | |
|------------------|--|
| Epicoccum | Habitat: It is found in soil and plant litter and is a plant pathogen. It can grow indoors on a variety of substrates, including paper and textiles and is commonly found on wet drywall. |
| | Effects: It is a common allergen. No cases of infection have been reported in humans. |

| | |
|--------------------|---|
| Myxomycetes | Habitat: Found on decaying plant material and as a plant pathogen. |
| | Effects: Some allergenic properties reported, but generally pose no health concerns to humans. |

Mark Andrechik
EHC Associates, Inc.
2502 Horseshoe Rd
Lancaster, PA 17601
(717) 656-3008

210141-002
SVSD - High School

#21028107

Organism Descriptions

Polythrincium

Habitat: Found in soil and occasionally on plants.

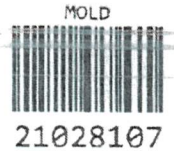
Effects: No known health effects. Allergenic properties are poorly studied.



Company: EHC Associates, Inc.
 Address: 2502 Horseshoe Rd.
Laurelton, PA 17601

N

SHIP: FEDEX - PAK 50
 DATE: 08-04-2021



| | | | |
|-------------------------------|-------------------------------------|---------|--------|
| Job Number: <u>210141-002</u> | Job Name: <u>SVSD - High School</u> | Mobile: | Email: |
| Collector: <u>Andrechik</u> | | Note: | |
| Date Collected: <u>8/3/21</u> | | | |

| Analysis Type | Analysis Description | Turnaround | Accepted Media Types | |
|---------------|----------------------|--|----------------------|--|
| Spore Trap | S | Identification & Enumeration of Fungal Spores | 24 Hour | Air Cassettes, Impact Slides |
| | S+ | Spore Trap Analysis with Dander, Fiber, and Pollen counts | 24 Hour | Air Cassettes, Impact Slides |
| Direct ID | D | ID & Semi-Quantative Enumeration of spores and mycelium | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| | D+ | Direct Analysis with Fully Quantitative spore count | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| Culture | C1 | Identification & Enumeration of Mold only | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C2 | Identification & Enumeration of Bacteria only | 4 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C3 | Identification & Enumeration of Mold and Bacteria | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C5 | Coliform Screen for Sewage Bacteria | 2 Day | Agar Plate, Swab, Bulk |
| Particle | TPA | Total Particulate Analysis, ID & Count (Does Not Include Mold) | 24 Hour | Air Cassettes, Impact Slides, Bio-Tape |

| # | Number | Sample | Analysis | Volume | Notes |
|----|-----------|------------------------------------|----------|------------------|-------|
| 1 | 3188 7095 | D-31 - Center of Room | S+ | 75L | |
| 2 | | D-31 - Elevated Wooden Shelf | D+ | 2.0 ^m | |
| 3 | | D-31 - Ceiling tile - Rear of Room | D+ | 2.0 ^m | |
| 4 | 3188 7116 | L-6 - Center of Room | S+ | 75L | |
| 5 | 3188 7069 | outside | ST | 75L | |
| 6 | | | | | |
| 7 | | | | | |
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| | | | |
|--------------|---------------------|--------------|---------------------|
| Released by: | Date: <u>8/3/21</u> | Received By: | Date: <u>8/4/21</u> |
|--------------|---------------------|--------------|---------------------|

EHC ASSOCIATES

ENVIRONMENTAL CONSULTANTS & ABATEMENT CONTRACTORS

August 27, 2021

PA HIC # 195

Schuylkill Valley School District
929 Lake Shore Drive
Leesport, PA 19533

Attn: Casey Blankenbiller

Re: Spore Trap Air Sampling Services
High School Room C-7
EHC Project No.: 210141-003

Dear Mr. Blankenbiller:

Please review the attached laboratory analysis report in regard to the spore trap air sampling performed at the above-referenced property on October 15, 2021. Air samples were collected from the following locations:

- Sample 01 – C-7 – Middle of Room
- Sample 02 – Outside
- Sample 03 – Green Text Books (Swab)
- Sample 04 – Red Rolling Chair (Swab)

At the current time, there are no established "safe" levels of mold spores in regard to indoor mold spore levels. However, the general consensus among experts in the industry is that interior spore levels should be generally equal to the levels found outside of a home or building.

Laboratory analysis results indicate that elevated levels of *Aspergillus*/*Penicillium* were present in the air sample (Sample 02) collected from Room C-7. The swab sample collected from the red rolling chair (Sample 04), that was located towards the front of the classroom, had a spore estimate of 'Very Heavy', 10,000+ spores present.

The federal EPA has developed the ERMI (Environmental Relative Moldiness Index) based on a study of over 700 homes. Both of these mold spores are considered common allergens.

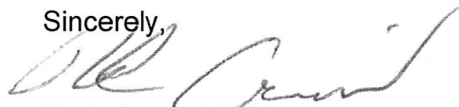
At the time of inspection, mold growth was observed on the rolling red chair – where Sample 04 was collected. The mold spore found in the air sample does not match the mold spore found on the chair, which means there is another source of mold growth within the room.

Remediation should be performed within a negative pressure containment system to keep mold spores from being distributed throughout the home. If not, there is a high chance of dispersing

mold spores and causing issues in other locations of the building. We also recommend that remediation be performed by properly trained individuals using proper PPE because individuals can have adverse reactions to specific mold spores in light or elevated concentrations.

Please contact my office with questions or concerns, or if you would like a proposal for remediation services.

Sincerely,



Mark Andrechik
Inspector

Encl's.: Laboratory Analysis Report
Invoice 210141-003



#21032136

Analysis Report prepared for

EHC Associates, Inc.

2502 Horseshoe Rd
Lancaster, PA 17601

Phone: (717) 656-3008

210141-003
SVHS - Leesport

Collected: **August 26, 2021**
Received: **August 27, 2021**
Reported: **August 27, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 4 samples by FedEx in good condition for this project on August 27th, 2021.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

A handwritten signature in black ink that reads 'Stephen N. Hayes'.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



Lab ID: #188863



DPH License: #PH-0198

| Sample Number | 1 3188 7192 | | | 2 3188 7402 | | | | |
|-------------------------|--------------------------|------------------------|-------------------|--------------------------|------------------------|------------|--|--|
| Sample Name | Room L-7 Middle of Room | | | Outside | | | | |
| Sample Volume | 75.00 liter | | | 75.00 liter | | | | |
| Reporting Limit | 13 spores/m ³ | | | 13 spores/m ³ | | | | |
| Background | 2 | | | 3 | | | | |
| Fragments | ND | | | ND | | | | |
| | Pollen | Dander | Fiber | Pollen | Dander | Fiber | | |
| | ND | 1440/m ³ | 27/m ³ | 27/m ³ | 67/m ³ | ND | | |
| Organism | Raw Count | Count / m ³ | % of Total | Raw Count | Count / m ³ | % of Total | | |
| Alternaria | | | | | | | | |
| Ascospores | 3 | 40 | 15.8% | 100 | 1333 | 13.1% | | |
| Aspergillus Penicillium | 15 | 200 | 78.9% | | | | | |
| Basidiospores | 1 | 13 | 5.3% | 644 | 8587 | 84.1% | | |
| Bipolaris Drechslera | | | | | | | | |
| Chaetomium | | | | | | | | |
| Cladosporium | | | | 17 | 227 | 2.2% | | |
| Curvularia | | | | 1 | 13 | <1% | | |
| Epicoccum | | | | | | | | |
| Fusarium | | | | | | | | |
| Memnoniella | | | | | | | | |
| Myxomycetes | | | | 1 | 13 | <1% | | |
| Pithomyces | | | | 3 | 40 | <1% | | |
| Stachybotrys | | | | | | | | |
| Stemphylium | | | | | | | | |
| Torula | | | | | | | | |
| Ulocladium | | | | | | | | |
| Total | 19 | 253 | 100% | 766 | 10213 | 100% | | |

| | | | | |
|------------------------|-----------------|-------------------------------|------------------------------------|-------------------|
| Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality |
|------------------------|-----------------|-------------------------------|------------------------------------|-------------------|



Mark Andrechik
EHC Associates, Inc.
2502 Horseshoe Rd
Lancaster, PA 17601
(717) 656-3008

210141-003
SVHS - Leesport

#21032136

Direct Analysis +
SOP - HMC#102

| #3 | Swab (2.00 in2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
|------------------------------|-----------------|-------------------|----------------|-------------------|-----------|---------|
| Swab - Green Textbooks | | No Fungi Detected | | | | |
| Reporting Limit: 1 spore/in2 | | | | | | |
| #4 | Swab (2.00 in2) | Organism | Spore Estimate | Mycelial Estimate | Raw Count | % Total |
| Swab - Red Rolling Chair | | Cladosporium | Very Heavy | Many | 31600 | 100% |
| Reporting Limit: 1 spore/in2 | | | | | | |



Collected: Aug 26, 2021

Received: Aug 27, 2021

Reported: Aug 27, 2021

Project Analyst:

Connor Gailliot, BS

Date:

08 - 27 - 2021

Reviewed By:

Steve Hayes, BSMT

Date:

08 - 27 - 2021

3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112

(804) 562-3435

contact@hayesmicrobial.com

Page: 3 of 7

Spore Trap Information

| | | | | | | | | | | | |
|---|--|---|-----------------|--|-------------------------------|---|------------------------------------|---|-------------------|--|--|
| Reporting Limit | The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated. | | | | | | | | | | |
| Blanks | Results have not been corrected for field or laboratory blanks. | | | | | | | | | | |
| Background | <p>The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:</p> <p>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</p> <p>1 : <5% of field occluded. No spores will be uncountable.</p> <p>2 : 5-25% of field occluded.</p> <p>3 : 25-75% of field occluded.</p> <p>4 : 75-90% of field occluded.</p> <p>5 : >90% of field occluded. Suggested recollection of sample.</p> | | | | | | | | | | |
| Fragments | Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification. | | | | | | | | | | |
| Control Comparisons | There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments. | | | | | | | | | | |
| <table border="0"> <tr> <td style="background-color: #e0e0e0;">Water Damage Indicator</td> <td>Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.</td> </tr> <tr> <td style="background-color: #e0e0e0;">Common Allergen</td> <td>Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.</td> </tr> <tr> <td style="background-color: #e0e0e0;">Slightly Higher than Baseline</td> <td>Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.</td> </tr> <tr> <td style="background-color: #e0e0e0;">Significantly Higher than Baseline</td> <td>Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.</td> </tr> <tr> <td style="background-color: #e0e0e0;">Ratio Abnormality</td> <td>Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.</td> </tr> </table> | Water Damage Indicator | Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem. | Common Allergen | Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors. | Slightly Higher than Baseline | Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination. | Significantly Higher than Baseline | Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination. | Ratio Abnormality | Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors. | |
| Water Damage Indicator | Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem. | | | | | | | | | | |
| Common Allergen | Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors. | | | | | | | | | | |
| Slightly Higher than Baseline | Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination. | | | | | | | | | | |
| Significantly Higher than Baseline | Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination. | | | | | | | | | | |
| Ratio Abnormality | Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors. | | | | | | | | | | |
| Color Coding | Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators. | | | | | | | | | | |

Direct Analysis Information

| Spore Estimate | | Percentages |
|----------------|-------------------------|-------------|
| ND | None Detected | 0% |
| Rare | Less than 10 spores | < 1% |
| Light | 10 - 99 spores | 1-10% |
| Moderate | 100 - 999 spores | 11-25% |
| Heavy | 1000 - 9999 spores | 26-50% |
| Very Heavy | 10000 or greater spores | 51-100% |

| Mycelial Estimate | |
|-------------------|--|
| ND | None Detected No active growth at site. |
| Trace | Very small amount of Mycelium Probably no active growth at site. |
| Few | Some Mycelium Possible active growth at site. |
| Many | Large amount of Mycelium Probable active growth at site. |

Organism Descriptions

| | |
|-------------------|--|
| Ascospores | Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report. |
| | Effects: Health affects are poorly studied, but many are likely to be allergenic. |

| | |
|--------------------------------|---|
| Aspergillus Penicillium | Habitat: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates. |
| | Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions. |

| | |
|----------------------|---|
| Basidiospores | Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings. |
| | Effects: Common allergens and are also associated with hypersensitivity pneumonitis. |

| | |
|---------------------|---|
| Cladosporium | Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts. |
| | Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis. |

| | |
|-------------------|---|
| Curvularia | Habitat: They exist in soil and plant debris, and are plant pathogens. |
| | Effects: They are allergenic and a common cause of allergic fungal sinusitis. An occasional cause of human infection, including keratitis, sinusitis, onychomycosis, mycetoma, pneumonia, endocarditis and disseminated infection, primarily in the immunocompromised. |

| | |
|--------------------|---|
| Myxomycetes | Habitat: Found on decaying plant material and as a plant pathogen. |
| | Effects: Some allergenic properties reported, but generally pose no health concerns to humans. |

Organism Descriptions

Pithomyces

Habitat: Common fungus isolated from soil, decaying plant material. Rarely found indoors.

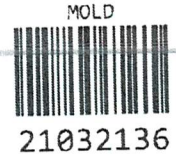
Effects: Allergenic properties are poorly studied. No cases of infection in humans.



Company: Hayes Microbial Consulting, LLC
 Address: 2502 Horseshoe Rd.
Lancaster, PA 17601

N

SHIP: FEDEX - PAK 50
 DATE: 08-27-2021



Job Number: 210191-003 Job Name: SVHS - Leesport
 Collector: Andrechik
 Date Collected: 8/26/21

MOBILE: _____ Email: _____
 Note: _____

| Analysis Type | | Analysis Description | Turnaround | Accepted Media Types |
|---------------|-----|--|------------|--|
| Spore Trap | S | Identification & Enumeration of Fungal Spores | 24 Hour | Air Cassettes, Impact Slides |
| | S+ | Spore Trap Analysis with Dander, Fiber, and Pollen counts | 24 Hour | Air Cassettes, Impact Slides |
| Direct ID | D | ID & Semi-Quantative Enumeration of spores and mycelium | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| | D+ | Direct Analysis with Fully Quantitative spore count | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| Culture | C1 | Identification & Enumeration of Mold only | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C2 | Identification & Enumeration of Bacteria only | 4 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C3 | Identification & Enumeration of Mold and Bacteria | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C5 | Coliform Screen for Sewage Bacteria | 2 Day | Agar Plate, Swab, Bulk |
| Particle | TPA | Total Particulate Analysis, ID & Count (Does Not Include Mold) | 24 Hour | Air Cassettes, Impact Slides, Bio-Tape |

Handwritten notes on the left margin.

| # | Number | Sample | Analysis | Volume | Notes |
|----|-----------|---------------------------|----------|------------------|-------|
| 1 | 3188 7192 | Room C-7 - Middle of Room | S+ | 75L | |
| 2 | 3188 7402 | Outside | ↓ | ↓ | |
| 3 | | Green Textbooks | D+ | 2in ² | |
| 4 | | Red Rolling chair | ↓ | ↓ | |
| 5 | | | | | |
| 6 | | | | | |
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Released by: [Signature] Date: 8/26/21 Received By: [Signature] Date: 8-27-21

EHC ASSOCIATES

ENVIRONMENTAL CONSULTANTS & ABATEMENT CONTRACTORS

October 12, 2021

PA HIC # 195

Schuylkill Valley School District
929 Lake Shore Drive
Leesport, PA 19533

Attn: Casey Blankenbiller

Re: Spore Trap Air Sampling Services
High School Room C-7
EHC Project No.: 210141-003.2

Dear Mr. Blankenbiller:

Please review the attached laboratory analysis report regarding the spore trap air sampling performed at the above-referenced property on October 7, 2021. Air samples were collected from the following locations:

Sample 01 – C-7 Middle of Room
Sample 02 – Outside

At the current time, there are no established “safe” levels of mold spores regarding indoor mold spore levels. However, the general consensus among experts in the industry is that interior spore levels should be generally equal to the levels found outside of a home or building.

Laboratory analysis results indicate that elevated levels of *Aspergillus/Penicillium* were present in the air sample (Sample 01) collected from Room C-7.

The federal EPA has developed the ERMI (Environmental Relative Moldiness Index) based on a study of over 700 homes. *Aspergillus/Penicillium* is considered a common allergen.

At the time of inspection, no visible mold growth was observed. However, during past inspections, surface mold growth was found on numerous books throughout the room. It is recommended that the books be removed from the book shelves and wiped down individually, along with the shelves.

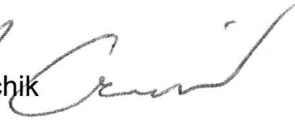
Remediation should be performed within a negative pressure containment system to keep mold spores from being distributed throughout the home. If not, there is a high chance of dispersing mold spores and causing issues in other locations of the building. We also recommend that remediation be performed by properly trained individuals using proper PPE because individuals can have adverse reactions to specific mold spores in light or elevated concentrations.

Please contact my office with questions or concerns, or if you would like a proposal for remediation services.

October 12, 2021
Page 2

Sincerely,

Mark Andrechik
Inspector



Encl's.: Laboratory Analysis Report
Invoice 210141-003.2

| Sample Number | 1 32839619 | | | 2 32838631 | | | | |
|-------------------------|--------------------------|------------------------|------------|--------------------------|------------------------|-------------------|--|--|
| Sample Name | Room C-7 (Middle of Rm) | | | Outside | | | | |
| Sample Volume | 75.00 liter | | | 75.00 liter | | | | |
| Reporting Limit | 13 spores/m ³ | | | 13 spores/m ³ | | | | |
| Background | 2 | | | 2 | | | | |
| Fragments | ND | | | ND | | | | |
| | Pollen | Dander | Fiber | Pollen | Dander | Fiber | | |
| | ND | 800/m ³ | ND | ND | 27/m ³ | 27/m ³ | | |
| Organism | Raw Count | Count / m ³ | % of Total | Raw Count | Count / m ³ | % of Total | | |
| Alternaria | | | | | | | | |
| Ascospores | | | | 38 | 507 | 20.9% | | |
| Aspergillus Penicillium | 15 | 200 | 51.7% | | | | | |
| Basidiospores | 1 | 13 | 3.4% | 134 | 1787 | 73.6% | | |
| Bipolaris Drechslera | | | | | | | | |
| Chaetomium | | | | | | | | |
| Cladosporium | 13 | 173 | 44.8% | 4 | 53 | 2.2% | | |
| Curvularia | | | | | | | | |
| Epicoccum | | | | 1 | 13 | <1% | | |
| Fusarium | | | | | | | | |
| Memnoniella | | | | | | | | |
| Myxomycetes | | | | 3 | 40 | 1.6% | | |
| Pithomyces | | | | | | | | |
| Stachybotrys | | | | | | | | |
| Stemphylium | | | | | | | | |
| Torula | | | | | | | | |
| Ulocladium | | | | | | | | |
| Polythrincium | | | | 2 | 27 | 1.1% | | |
| Total | 29 | 386 | 100% | 182 | 2427 | 100% | | |

| | | | | |
|------------------------|-----------------|-------------------------------|------------------------------------|-------------------|
| Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality |
|------------------------|-----------------|-------------------------------|------------------------------------|-------------------|

Collected: Oct 7, 2021

Received: Oct 8, 2021

Reported: Oct 8, 2021



Project Analyst:
 Connor Gailliot, BS

Connor Gailliot

Date:
 10 - 08 - 2021

Reviewed By:
 Steve Hayes, BSMT

Stephen A. Hayes

Date:
 10 - 08 - 2021

Spore Trap Information

| | | | | | | |
|---|--|-----------------|-------------------------------|------------------------------------|-------------------|--|
| Reporting Limit | The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated. | | | | | |
| Blanks | Results have not been corrected for field or laboratory blanks. | | | | | |
| Background | <p>The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:</p> <p>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</p> <p>1 : <5% of field occluded. No spores will be uncountable.</p> <p>2 : 5-25% of field occluded.</p> <p>3 : 25-75% of field occluded.</p> <p>4 : 75-90% of field occluded.</p> <p>5 : >90% of field occluded. Suggested recollection of sample.</p> | | | | | |
| Fragments | Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification. | | | | | |
| Control Comparisons | There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments. | | | | | |
| <table border="1"> <tr><td>Water Damage Indicator</td></tr> <tr><td>Common Allergen</td></tr> <tr><td>Slightly Higher than Baseline</td></tr> <tr><td>Significantly Higher than Baseline</td></tr> <tr><td>Ratio Abnormality</td></tr> </table> | Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality | <p>Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.</p> <p>Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.</p> <p>Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.</p> <p>Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.</p> <p>Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.</p> |
| Water Damage Indicator | | | | | | |
| Common Allergen | | | | | | |
| Slightly Higher than Baseline | | | | | | |
| Significantly Higher than Baseline | | | | | | |
| Ratio Abnormality | | | | | | |
| Color Coding | Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators. | | | | | |

Organism Descriptions

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|-------------------|--|
| Ascospores | Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report. |
| | Effects: Health affects are poorly studied, but many are likely to be allergenic. |

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| Aspergillus Penicillium | Habitat: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates. |
| | Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions. |

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| Basidiospores | Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings. |
| | Effects: Common allergens and are also associated with hypersensitivity pneumonitis. |

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| Cladosporium | Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts. |
| | Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis. |

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| Epicoccum | Habitat: It is found in soil and plant litter and is a plant pathogen. It can grow indoors on a variety of substrates, including paper and textiles and is commonly found on wet drywall. |
| | Effects: It is a common allergen. No cases of infection have been reported in humans. |

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| Myxomycetes | Habitat: Found on decaying plant material and as a plant pathogen. |
| | Effects: Some allergenic properties reported, but generally pose no health concerns to humans. |

Organism Descriptions

Polythrincium

Habitat: Found in soil and occasionally on plants.

Effects: No known health effects. Allergenic properties are poorly studied.



Company: EHC Associates, Inc.
 Address: 2502 Horseshoe Rd.
Laurel, PA 17601

N

SHIP: FEDEX - PAK 50
 DATE: 10-08-2021



Job Number: 21041-003.2 Job Name: SVHS- 929 Lake Shore Drive
 Collector: Andrechik
 Date Collected: 10/7/21
 Mobile: _____ Email: _____
 Note: _____

| Analysis Type | Analysis Description | Turnaround | Accepted Media Types | |
|---------------|----------------------|--|----------------------|--|
| Spore Trap | S | Identification & Enumeration of Fungal Spores | 24 Hour | Air Cassettes, Impact Slides |
| | S+ | Spore Trap Analysis with Dander, Fiber, and Pollen counts | 24 Hour | Air Cassettes, Impact Slides |
| Direct ID | D | ID & Semi-Quantative Enumeration of spores and mycelium | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| | D+ | Direct Analysis with Fully Quantitative spore count | 24 Hour | Bio-Tape, Tape, Swab, Bulk, Agar Plate |
| Culture | C1 | Identification & Enumeration of Mold only | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C2 | Identification & Enumeration of Bacteria only | 4 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C3 | Identification & Enumeration of Mold and Bacteria | 7 Day | Air Plate, Agar Plate, Swab, Bulk |
| | C5 | Coliform Screen for Sewage Bacteria | 2 Day | Agar Plate, Swab, Bulk |
| Particle | TPA | Total Particulate Analysis, ID & Count (Does Not Include Mold) | 24 Hour | Air Cassettes, Impact Slides, Bio-Tape |

| # | Number | Sample | Analysis | Volume | Notes |
|----|-----------|---------------------------|----------|--------|-------|
| 1 | 3283 9619 | Room 6-7 (middle of room) | St | 75 | |
| 2 | 3283 9631 | outside | ↓ | ↓ | |
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Released by: [Signature] Date: 10/7 Received By: [Signature] Date: 10/8/21