

7/15/2019

Alamance Burlington School System Mail - Clearance Reports: Sellars and Turrentine



Joseph Fuller <jay_fuller@abss.k12.nc.us>

Clearance Reports: Sellars and Turrentine

1 message

Jim McManus <jmcmanus@alisenvironmental.com>
Reply-To: JMcManus@alisenvironmental.com
To: Jay fuller <jay_fuller@abss.k12.nc.us>

Mon, Jul 15, 2019 at 11:43 AM

Jay,

Over the weekend, Jose removed ft & mastic from the teacher's lounge at Turrentine and TSI from the boiler room at Sellars.

Reports are attached. He said the small room in the teachers lounge was being used for storage and he couldn't get to the tile so, FYI it's still there in case your asked.

Call me if you have any questions.

James P. McManus, VP

ALIS Environmental, Inc.

P.O. Box 6

Pinnacle, NC 27043

Off: 336.368.4500

Mobile: 336.575.2343

2 attachments

 **201-1907-05 final.pdf**
165K

 **201-1907-06 final.pdf**
164K



Environmental Inc

Office: 336.368.4500
Mobile: 336.575.2343
jmcmanus@allisenvironmental.com

July 15, 2019

Jay Fuller
Director of Facilities and Maintenance
Alamance-Burlington School System
307 Prison Camp Road
Graham, North Carolina 27253

Subject: Report of Asbestos Clearance Air Sampling and Analysis
Removal of Asbestos-Containing Materials – Boiler Room
Sellars-Gunn Education Center
Burlington, North Carolina
ALIS Project# 201-1907-06

Dear Mr. Fuller:

ALIS Environmental, Inc. (ALIS) has completed the Asbestos Clearance Air Sampling and Analysis at Sellars-Gunn Education Center in Burlington, North Carolina. On July 14, 2019 ALIS personnel conducted air sampling upon completion of the removal of 125 LF of asbestos-containing pipe insulation from the boiler room. We understand the pipe insulation was removed under a negative pressure enclosure and using the glovebag technique. Upon our arrival at the project site, we conducted a visual inspection which focused on locating evidence of remaining asbestos debris. Debris was not observed, and the work area was considered acceptably clean. Following the inspection, air sampling pumps were deployed to the work area, calibrated accordingly and air samples were obtained. Air sample analysis indicates the airborne fiber concentration in the sampled area was below 0.01 fiber per cubic centimeter (f/cc), the maximum airborne fiber concentration allowed by the State of North Carolina in public areas. Results can be found in the attached Table 1: "PCM Air Sample Summary"

Air samples were analyzed in accordance with the National Institute of Occupational Safety and Health (NIOSH) Method 7400 using optical Phase Contrast Microscopy (PCM). This method of measuring airborne asbestos in buildings was developed by NIOSH in connection with the OSHA asbestos exposure standards for the workplace. This method cannot distinguish asbestos fibers from non-asbestos fibers and is not sensitive to fibers with diameters less than 0.2 micrometers. Transmission Electron Microscopy would be necessary to distinguish asbestos fibers from other fibers and/or to detect fibers less than 0.2 micrometers in diameter.

We appreciate the opportunity to provide asbestos air sampling services for this project. If you have any questions or need additional information, please contact us at the above number.

Sincerely,

James P. McManus
Vice President

Attachment: Table 1: "PCM Air Sample Summary"
Accreditations: NC Air Monitor # 80628
AIHA Laboratory No. 149324

A.L.I.S. Environmental, Inc.
Table 1 - PCM Air Sample Summary

Using NIOSH Method 7400 Rev.#3

Project Name: Sellers-Gunn Education Center Date: 7/14/2019 Contractor: Aleman Environmental, Inc.
 Location: 612 Apple St. Burlington, NC Project #: 201-1907-06
 Area Sampled: Boiler Room Activity: Asbestos Clearance Air Testing
 Collected By: James P. McManus

SAMPLE #	LOCATION OF SAMPLE	FLOW RATE (L/M)	TIME ON/OFF	SAMPLE TIME (MINUTES)	SAMPLE VOLUME LITERS	ANALYSIS OF DATA			
						FIBER COUNT	FIELD COUNT	FIBER CONC f/cc	Detection Limit
B1	Field Blanks	*	*	*	*	1.0	100	*	AVG = 0.50
B2						0.0	100		
1	Inside Work Area Boiler Room Entrance Side	15.02	11:14 12:40	86	1292	3.5	100	0.0011	Acceptable
2	Inside Work Area Boiler Room Entrance Side	15.02	11:14 12:40	86	1292	1	100	0.0002	Acceptable

PCM Analysis indicates air samples were below 0.010 fiber/cubic centimeter (f/cc), the maximum airborne fiber concentration allowed in public areas by the state of North Carolina. Detection Limit (DL) is a value representing the smallest amount of material that can be confidently distinguished from background levels.

James P. McManus



Office: 336.368.4500
Mobile: 336.575.2343
jmcmanus@allsenvironmental.com

July 15, 2019

Jay Fuller
Director of Facilities and Maintenance

Alamance-Burlington School System
307 Prison Camp Road
Graham, North Carolina 27253

Subject: Report of Asbestos Clearance Air Sampling and Analysis
Removal of Asbestos-Containing Materials – Teacher’s Lounge
Turrentine Middle School
Burlington, North Carolina
ALIS Project# 201-1907-05

Dear Mr. Fuller:

ALIS Environmental, Inc. (ALIS) has completed the Asbestos Clearance Air Sampling and Analysis at Turrentine Middle School in Burlington, North Carolina. On July 14, 2019 ALIS personnel conducted air sampling upon completion of the removal of 650 SF of asbestos-containing floor tile and mastic from the teacher’s lounge. We understand the removal was completed non-aggressively using hand tools and chemical stripper. Upon our arrival at the project site, we conducted a visual inspection which focused on locating evidence of remaining asbestos debris. Debris was not observed, and the work area was considered acceptably clean. The contractor informed us that the small room within the lounge was being used for storage and was not accessible for removing the tile and mastic. Following the inspection, air sampling pumps were deployed to the work area, calibrated accordingly and air samples were obtained. Air sample analysis indicates the airborne fiber concentration in the sampled area was below 0.01 fiber per cubic centimeter (f/cc), the maximum airborne fiber concentration allowed by the State of North Carolina in public areas. Results can be found in the attached Table 1: “PCM Air Sample Summary”

Air samples were analyzed in accordance with the National Institute of Occupational Safety and Health (NIOSH) Method 7400 using optical Phase Contrast Microscopy (PCM). This method of measuring airborne asbestos in buildings was developed by NIOSH in connection with the OSHA asbestos exposure standards for the workplace. This method cannot distinguish asbestos fibers from non-asbestos fibers and is not sensitive to fibers with diameters less than 0.2 micrometers. Transmission Electron Microscopy would be necessary to distinguish asbestos fibers from other fibers and/or to detect fibers less than 0.2 micrometers in diameter.

We appreciate the opportunity to provide asbestos air sampling services for this project. If you have any questions or need additional information, please contact us at the above number.

Sincerely,

James P. McManus
Vice President

Attachment: Table 1: “PCM Air Sample Summary”
Accreditations: NC Air Monitor # 80628
AIHA Laboratory No. 149324

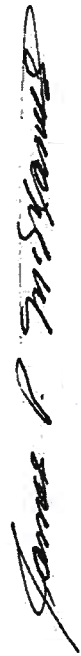
A.L.I.S. Environmental, Inc.
Table 1 - PCM Air Sample Summary

Using NIOSH Method 7400 Rev.#3

Project Name: Turrentine Middle School Contractor: Aleman Environmental, Inc.
 Location: 1710 Edgewood Avenue Burlington, North Carolina Project #: 201-1907-05
 Area Sampled: Teacher's Lounge Activity: Asbestos Clearance Air Testing
 Collected By: James P. McManus Date: 7/14/2019

SAMPLE #	LOCATION OF SAMPLE	FLOW RATE (L/M)	TIME ON/OFF	SAMPLE TIME (MINUTES)	SAMPLE VOLUME LITERS	ANALYSIS OF DATA			Detection Limit
						FIBER COUNT	FIELD COUNT	FIBER CONC f/cc	
B1		*	*	*	*	0.0	100	*	AVG = 0.00
B2	Field Blanks	*	*	*	*	0.0	100		
1	Inside Work Area Teachers Lounge Near Window	15.02	10:47 13:10	143	2148	8.5	100	0.0019	Acceptable 0.0013
2	Inside Work Area Teachers Lounge Near Entrance Wall	15.02	10:47 13:10	143	2148	11	100	0.0025	Acceptable 0.0013

PCM Analysis indicates air samples were below 0.010 fiber/cubic centimeter (f/cc), the maximum airborne fiber concentration allowed in public areas by the state of North Carolina. Detection Limit (DL) is a value representing the smallest amount of material that can be confidently distinguished from background levels.





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jmcmanus@alisenvironmental.com

July 16, 2019

Jay Fuller
Director of Facilities and Maintenance

Alamance-Burlington School System
307 Prison Camp Road
Graham, North Carolina 27253

Subject: Report of Airborne Microbial Sampling
Sellars-Gunn Education Center – Various Rooms
612 Apple St.
Burlington, North Carolina 27302
Project No.: 201-1907-04

Dear Mr. Fuller:

ALIS has completed the airborne microbial sampling at Sellars-Gunn Education Center in Burlington, North Carolina. On July 11, 2019, we conducted air sampling for the presence of airborne fungi at the subject property. The purpose of our sampling was to determine the presence and species of airborne fungi and the degree of concentration within the areas of concern. Air sampling pumps were calibrated and placed in the following locations: Rooms 2, 3, 4, 5, 28 and the common area outside audiology. One sample was collected from outside the building as a reference (baseline) for comparison to the inside conditions. No other areas of the building were included in the scope of work.

Results

The laboratory results found no significantly higher levels of fungal spores on the indoor samples when compared to levels found on the outside sample. Three *Stachybotrys* spores were detected on the sample collected from room #5, which calculates to 20 spores per cubic meter (20 S/m³). Although *Stachybotrys* spores were not detected on the outdoor sample, the level found in room #5 is considered to be slightly elevated compared to the outdoor baseline. This species is found typically in soil and on decaying plant matter. *Stachybotrys* can grow indoors on wet building materials containing cellulose (wallboard, ceiling tile, upholstery, carpet etc.). The presence of *Stachybotrys* indoors suggests there may be moisture intrusion and hidden growth within room #5. Sample results are attached to this report: "Spore Trap Analysis"

Sampling Methodology

Non-viable samples were collected with a spore trap slide using Allergenco-D Cassettes mounted to a sampling pump. The cassettes contain glass slides that are coated with a sticky substance that captures airborne particulates that impinge on the slides. The air samples were collected at 15 liters per minute for 10 minutes. Calibration of sampling equipment was performed with a precision rotameter (a secondary calibration source). Rotameters are calibrated against a primary standard. Field calibration was performed before and after sampling. The air samples were sealed for transport to Hayes Microbial Consulting in Midlothian, Virginia for analysis. Hayes Microbial is a participant in the American Industrial Hygiene Association, Laboratory Accreditation Program (AIHA-LAP) for Environmental Microbiology.

Background Information on Mold in Buildings

Mold spores exist normally in outdoor and indoor air and can be measured in air and carpets of normal homes, office buildings, hospitals and schools. Naturally occurring sources of mold spores include soil, plants and other sources. The air concentration of these normally occurring mold spores is dependent on the season, environmental conditions and other factors. Elevated levels of mold in building materials may occur if chronic moist conditions from water leaks, floods, chronic high relative humidity, or malfunctioning heating, ventilation or air conditioning systems, allow moisture to remain for prolonged periods on organic matter in the presence of warm ambient temperatures. Under these conditions, low levels of fungal spores in air, plants or other sources, may proliferate on cellulose containing materials such as carpets, wallboard, wood, paper or dusty surfaces (which may serve as a food source), and result in mold contamination. Many fungal spores are allergenic to susceptible persons exposed, though individual susceptibility varies greatly. There is no practical way to eliminate all mold and mold spores in the indoor environment; the way to control indoor mold growth is to control moisture.

ALIS appreciates the opportunity to be of service to you on this project. We would welcome the opportunity to discuss at your convenience, any of the results contained in this report. Please contact us if you have any questions or if we may be of further service.

Sincerely,
ALIS ENVIRONMENTAL, INC.



James P. McManus
Vice-President

Attachment: "Spore Trap Analysis"



#19027546

Analysis Report prepared for

ALIS Environmental Inc.

1027 Koontz Haven Rd
Pinnacle, NC 27043

Phone: (336) 368-4500

201 1907-04
Sellars - Gunn Education Ctr.
612 Apple St.
Burlington, NC

Collected: July 11, 2019
Received: July 15, 2019
Reported: July 15, 2019



We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 8 samples by FedEx in good condition for this project on July 15th, 2019.

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.

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

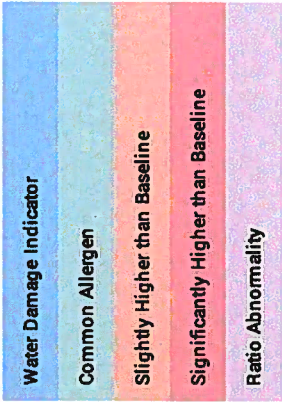
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Lab ID: #188863

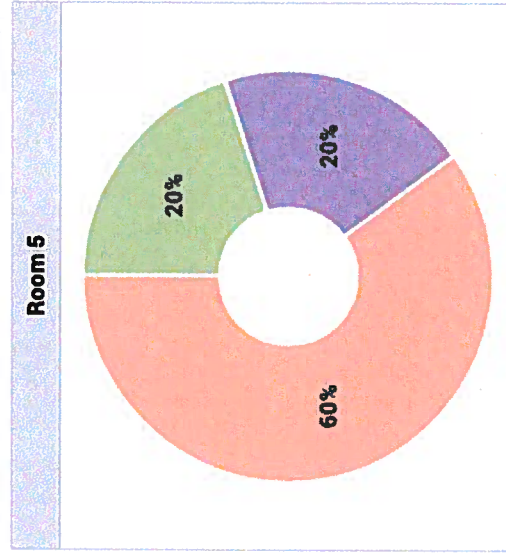
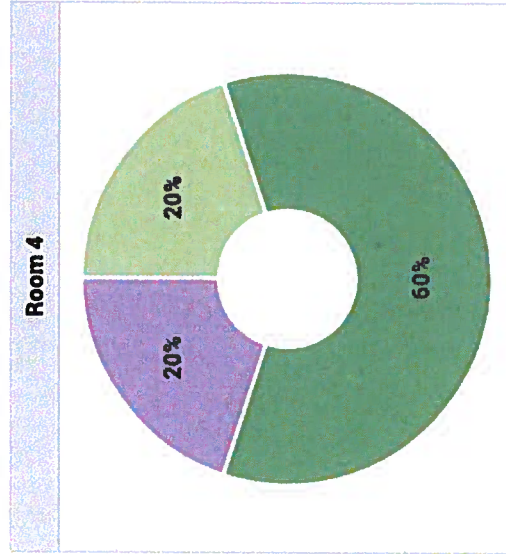
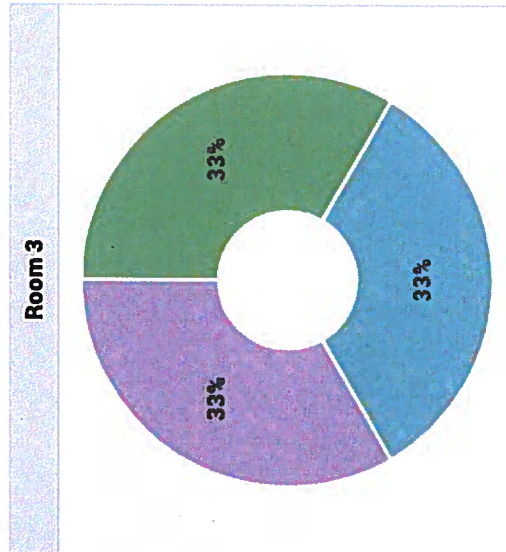
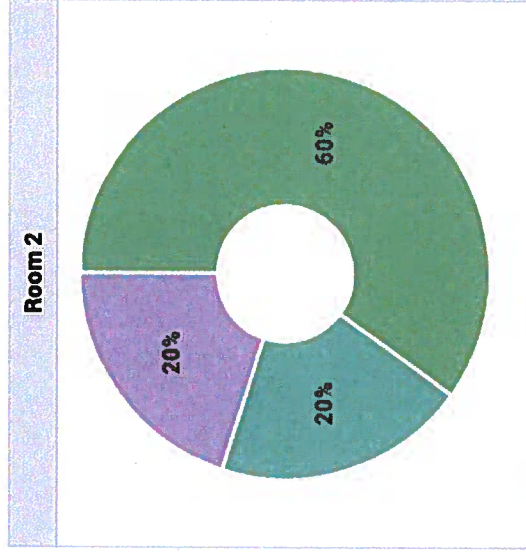
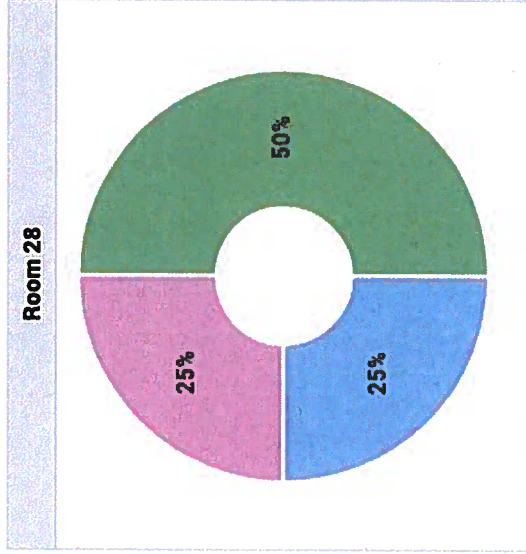
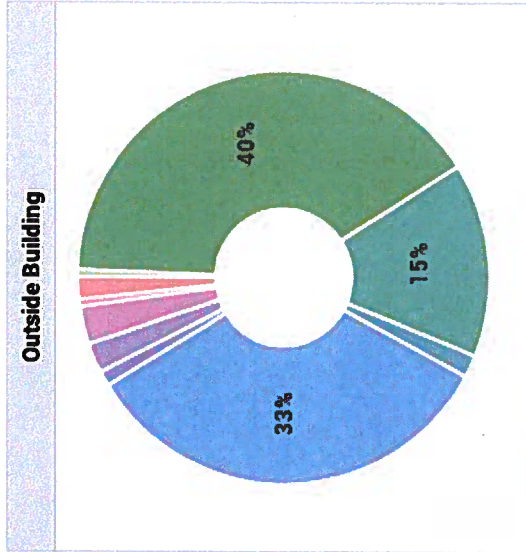
NVLAP Lab Code: 500096-0

DPH License: #PH-0198

Spore Trap Information

<p>Reporting Limit</p> <p>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.</p>
<p>Blanks</p> <p>Results have not been corrected for field or laboratory blanks.</p>
<p>Background</p> <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>
<p>Fragments</p> <p>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.</p>
<p>Control Comparisons</p> <p>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>
 <p>Water Damage Indicator (Blue)</p> <p>Common Allergen (Green)</p> <p>Slightly Higher than Baseline (Orange)</p> <p>Significantly Higher than Baseline (Red)</p> <p>Ratio Abnormality (Violet)</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>
<p>Color Coding</p> <p>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.</p>

Spore Counts - Pie Charts



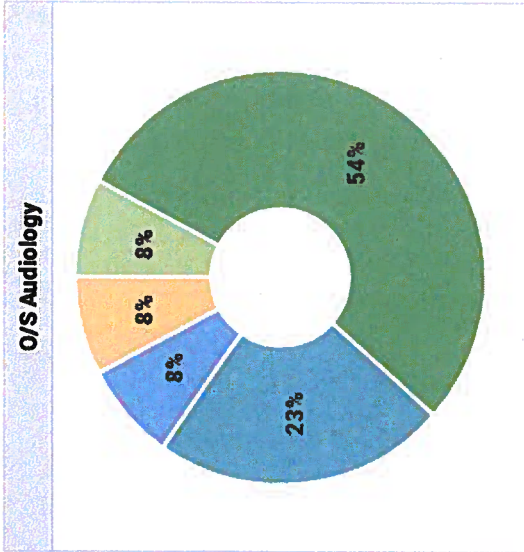
Alternaria	Ascospores	Aspergillus/Penicillium	Basidiospores	Cladosporium
Curvularia	Epicoccum	Pithomyces	Bipolaris/Drechslera	Zygomycetes
Stachybotrys	Torula			

Jim McManus
ALIS Environmental Inc.
 1027 Koontz Haven Rd
 Pinnacle, NC 27043
 (336) 368-4500

201 1907-04
 Sellars - Gunn Education Ctr.
 612 Apple St.
 Burlington, NC

#19027546

Spore Counts - Pie Charts



Altermaria	Ascomycetes	Aspergillus Penicillium	Basidiospores	Cladosporium
Curvularia	Epicoccum	Pithomyces	Bipolaris Drechslera	Zygomycetes
Stachybotrys	Torula			



Organism Descriptions

Alternaria

Habitat: Commonly found outdoors in soil and decaying plants. Indoors, it is commonly found on window sills and other horizontal surfaces.

Effects: A common allergen and has been associated with hypersensitivity pneumonitis. Alternaria is capable of producing toxic metabolites which may be associated with disease in humans or animals. Occasionally an agent of onychomycosis, ulcerated cutaneous infection and chronic sinusitis, principally in the immunocompromised patient.

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.

Bipolaris|Drechslera

Habitat: They are found in soil and as plant pathogens. Can grow indoors on a variety of substrates.

Effects: They may be allergenic and are very commonly involved in allergic fungal sinusitis. They are opportunistic pathogens but occasionally infect healthy individuals, causing keratitis, sinusitis and osteomyelitis.

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.

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.

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.

Stachybotrys

Habitat: Commonly found in soil and on decaying plant material. It is cellulolytic, and can be found indoors on wet materials containing cellulose, such as wallboard, ceiling tile, and other paper-based materials. It is found outdoors on decaying plant material although it is rarely detected on outdoor air samples.

Effects: Allergenic properties are poorly studied and no cases of infection have been reported in humans. They do however produce potent tricothecene mycotoxins. The toxins produced by this fungus can suppress the immune system affecting the lymphoid tissue and the bone marrow. The mycotoxin is also reported to be a liver and kidney carcinogen.

Torula

Habitat: Found in soil and on wood and grasses. Occasionally found growing indoors on cellulose containing materials.

Effects: A known allergen. No known cases of human infection.

Zygomycetes

Habitat: Ubiquitous in nature and found in soil, plants, decaying fruits and vegetables. It is also a common laboratory contaminant. Common genera include Rhizopus and Mucor.

Effects: May cause infection in humans and animals. Classified as a Type I and Type III allergen.



3005 East
N

SHIP: FEDEX - PAK 50
DATE: 07-15-2019



ALJS Environmental, Inc.
1027 Koontz Haven Rd
Pinnacle, NC 27043
Ph.: 336.575.2343 Fax:

Job Number: 201 1907-04
Job Name: SELLARS-GUNN EDUCATION CTR
612 APPLES
BURLINGTON, NC

Date Collected: 7-11-19
Collected by: J.McManus
Email: jmcmamus@alisenvironmental.com

Sample #	Sample Name	Analysis Type	Volume	Turn Around Time	Start / Stop Time
0227 0638	OUTSIDE BUILDINGS	S	150 LTR	24 hr.	12:55 - 13:05
0228 0034	ROOM 28	S	150	↓	12:21 - 12:31
0227 9984	ROOM 2	S	150	↓	12:15 - 12:25
0227 9956	ROOM 3	S	180	↓	12:05 - 12:17
0228 4676	ROOM 4	S	210	↓	12:01 - 12:15
0228 0107	ROOM 5	S	150	↓	11:53 - 12:03
0227 9960	1/3 ANALOGY	S	180	↓	12:45 - 12:57
0227 7325	BLANK	S	N/A	↓	N/A

Analysis Type	Description	Turn Around Time	Acceptable Samples Types
Spore Trap	S Identification & Enumeration of Fungal Spores	24 hours	Spore Trap cassettes, Impact slides
	S+ I & E of Fungal Spores + total dander, fiber and pollen count	24 hours	Spore Trap cassettes, Impact slides
Direct ID	D ID and Semi-quantitative enumeration of spores and mycellium	24 hours	Tape, Bio-tape, swab, bulk, agar plate for ID only
	D+ ID and Enumeration with spore count	24 hours	Tape, Bio-tape, swab, bulk, agar plate for ID only
Culture	C1 Identification & Enumeration of Mold only	7 days	Anderson Air Plate, Swab, Bulk
	C2 Identification & Enumeration of Bacteria only	4 days	Anderson Air Plate, Swab, Bulk
	C3 Identification & Enumeration of Mold and Bacteria	7 days	Anderson Air Plate, Swab, Bulk
Dust Mite	A1 Semi-quantitative analysis of dust mite allergen	24 hours	Bulk Dust

Notes:
Relinquished By: JPB
Date: 7-12-19
Rcvd. By: JPB
Date: 7/15/19
Time:



Office: 336.368.4500
Mobile: 336.575.2343
jmcmanus@allsenvironmental.com

July 22, 2019

Jay Fuller
Director of Facilities and Maintenance

Alamance-Burlington School System
307 Prison Camp Road
Graham, North Carolina 27253

Subject: Summary of Assessment of Asbestos Flooring Material
Sellars-Gunn Education Center
612 Apple St
Burlington, North Carolina
Project No.: 201-1907-04

Dear Mr. Fuller:

At your request, ALIS Environmental, Inc. (ALIS) visited the subject property on July 11, to conduct a visual assessment of asbestos-containing material (ACM) specifically floor tile and pipe insulation. We understand there was a concern over the condition of the materials and potential for exposure to occupants of the rooms.

Observation:

We observed the asbestos-containing floor tile and pipe insulation in rooms PD5 and 120. We focused on examining the overall condition of the materials and any localized damage including the potential for damage. Although, a few tiles were cracked, the floor tile was noted to be in good condition in both rooms. The pipe insulation in both rooms was in good condition and no significant damage was observed. The overall potential for exposure from the floor tile and pipe insulation is low.

ALIS Environmental, Inc. appreciates the opportunity to be of service to you. Please contact us if you have any questions or if we may be of further service.

Sincerely,
A.L.I.S. Environmental, Inc.

A handwritten signature in black ink that reads "James P. McManus". The signature is written in a cursive style.

James P. McManus
Vice-President
NC Asbestos Inspector: #11697

TRINITY ENVIRONMENTAL, LLC
3747 EVERGREEN DRIVE
TRINITY, NORTH CAROLINA 27370

INDUSTRIAL HYGIENE REPORT

Project: Asbestos Abatement
Ray Street Academy
609 Ray Street
Graham, North Carolina

Client: EME Industrial Services, LLC
1541 Pleasant Ridge Road
Greensboro, NC 27409
Attention: James Hamm

Contractor: EME Industrial Services, LLC
1541 Pleasant Ridge Road
Greensboro, NC 27409

Project I.D. #: 19-012775

Project Date: August 26, 2019

Report Date: September 4, 2019

Technician: James Buchanan - NC Accred. Air Monitor No. 80044

I. SUMMARY

Trinity Environmental has performed a visual inspection and air sampling following the removal of asbestos-containing building materials from the Ray Street Academy located at 609 Ray Street in Graham, North Carolina. Removed from the crawlspace was an estimated 180 linear feet of pipe insulation and debris. The work activity was completed within a negative pressured area using the glove bag method. Following the removal a 12 mil poly barrier was placed over the crawlspace dirt.

The work area was visually inspected and no additional debris material was observed. One air sample was collected within the work area and the sample was analyzed by EMSL Analytical, Inc. located in Kernersville, North Carolina. The samples were analyzed using the NIOSH 7400, Issue 2 Method with phase contrast microscopy. The analysis result was less than 0.004 fibers per cubic centimeters. Based on the visual inspection and sample results below the North Carolina acceptable exposure standard for a public area of 0.01 fibers per cubic centimeter we recommend the release of the contractor.

II. METHODOLOGY

1. Abatement Area Final Visual and Clearance

A visual inspection of the abatement area was conducted following the guidelines:

- Guidance for Controlling Asbestos-Containing Materials in Buildings, USEPA 560/5-85-024, June 1985.
- Standard Practice for Visual Inspection of Asbestos Abatement Projects, ASTM Designation: E 1368-90.
- Measuring Airborne Asbestos Following an Abatement Action. USEPA 600/4-85-049. November 1985.
- North Carolina Asbestos Rules, Regulations, and Procedures; NC Administrative Code Chapter 10-A, Subchapter 41C – Occupational Health, 10A NCAC 41C.0600 – Asbestos Hazard Management Program

III. RESULTS

1. Final Clearance Notification - Attached.
2. EMSL Analytical Report # 021905936

Prepared By:



James Buchanan, CIE

TRINITY ENVIRONMENTAL
3747 EVERGREEN DRIVE
TRINITY, NC 27370

Final Visual Inspection and Air Sampling

Project: Residence Date: 8/26/2019
Location: 609 Ray Street, Graham, North Carolina
Contractor: EME Industrial Services, LLC
Final Visual Inspection No. 1 Time Started 11:35 Time Finished 12:00

VISUAL INSPECTION

AREA	Residual Dust	Pass/Fail
Removal crawlspace pipe insulation; +/-180 LF	None Observed	Pass
Added 12 mil poly barrier; +/-40'x 83'		

AIR SAMPLING

Sample ID No.	Sample Location	Fibers per cc	Pass / Fail
1	Crawlspace	0.0040	Pass

These results are for the abatement area and this final inspection may be invalidated upon further demolition, renovation or other construction that occurs in the abatement area after visual and final air sampling.

Laboratory: EMSL Analytical, Inc. 706 Gralin St Kernersville, NC 27284

AIHA IHPAT Laboratory ID: 102104-0

EMSL Report #021905936

THIS REPORT IS NOT VALID WITHOUT ATTACHED ANALYSIS REPORT

Comments: _____

North Carolina (10A NCAC 41C.0607(a)) has established 0.01 fibers per cubic centimeters as analyzed by phase contrast microscopy as the maximum allowable ambient asbestos level in the air for a public area.

James E Buchanan

80044

Signature of Accredited Air Monitor / NC No.

90054

Signature of Supervising Air Monitor / NC No.



EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284
Tel/Fax: (336) 992-1025 / (336) 992-4175
http://www.EMSL.com / greensboro@emsl.com

EMSL Order: 021905936
Customer ID: TRNY34
Customer PO:
Project ID:

Attention: Jim Buchanan
Trinity Environmental
PO Box 45
Trinity, NC 27370

Phone: (336) 402-0099
Fax:
Received Date: 08/28/2019 12:45 PM
Analysis Date: 08/29/2019
Collected Date: 08/28/2019

Project: 609 Ray St.

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/15/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
1	Crawlspace	08/28/2019	1353	10	100	0.002	12.7	0.004	

021905936-0001

This method requires the submission of field blanks with each sample set. No discernable field blanks were submitted, samples are not blank corrected.

Analyst(s):

James Cole PCM 1

Stephen Bennett, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm²) have greater than optimal variability and are probably biased. 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 data reported that relies on information provided by the client, sample collection activities, or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Results have been blank corrected as applicable. The report reflects the samples as received. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAP standards unless otherwise noted. Intra-laboratory Sr values: 5-20 fibers = 0.26, 21-60 fibers = 0.22, 61-100 fibers = 0.15. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34. Samples analyzed by EMSL Analytical, Inc. Kernersville, NC Virginia 3333-000228

Initial report from: 08/28/2019 10:48 AM

TRINITY ENVIRONMENTAL, LLC
3747 EVERGREEN DRIVE
TRINITY, NORTH CAROLINA 27370

INDUSTRIAL HYGIENE REPORT

Project: Asbestos Abatement
Ray Street Academy
609 Ray Street
Graham, North Carolina

Client: EME Industrial Services, LLC
1541 Pleasant Ridge Road
Greensboro, NC 27409
Attention: James Hamm

Contractor: EME Industrial Services, LLC
1541 Pleasant Ridge Road
Greensboro, NC 27409

Project I.D. #: 19-012775

Project Date: August 26, 2019

Report Date: September 4, 2019

Technician: James Buchanan - NC Accred. Air Monitor No. 80044

I. SUMMARY

Trinity Environmental has performed a visual inspection and air sampling following the removal of asbestos-containing building materials from the Ray Street Academy located at 609 Ray Street in Graham, North Carolina. Removed from the crawlspace was an estimated 180 linear feet of pipe insulation and debris. The work activity was completed within a negative pressured area using the glove bag method. Following the removal a 12 mil poly barrier was placed over the crawlspace dirt.

The work area was visually inspected and no additional debris material was observed. One air sample was collected within the work area and the sample was analyzed by EMSL Analytical, Inc. located in Kernersville, North Carolina. The samples were analyzed using the NIOSH 7400, Issue 2 Method with phase contrast microscopy. The analysis result was less than 0.004 fibers per cubic centimeters. Based on the visual inspection and sample results below the North Carolina acceptable exposure standard for a public area of 0.01 fibers per cubic centimeter we recommend the release of the contractor.

II. METHODOLOGY

1. Abatement Area Final Visual and Clearance

A visual inspection of the abatement area was conducted following the guidelines:

- Guidance for Controlling Asbestos-Containing Materials in Buildings, USEPA 560/5-85-024, June 1985.
- Standard Practice for Visual Inspection of Asbestos Abatement Projects, ASTM Designation: E 1368-90.
- Measuring Airborne Asbestos Following an Abatement Action. USEPA 600/4-85-049. November 1985.
- North Carolina Asbestos Rules, Regulations, and Procedures; NC Administrative Code Chapter 10-A, Subchapter 41C – Occupational Health, 10A NCAC 41C.0600 – Asbestos Hazard Management Program

III. RESULTS

1. Final Clearance Notification - Attached.
2. EMSL Analytical Report # 021905936

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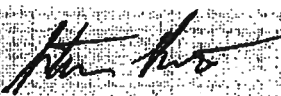
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