ESI Environmental Solutions, Inc.
Consulting, Testing and Project Management
6114 Drum Point Rd., Deale, MD 20751 | info@esi4u.com | 410-867-6262 | www.esi4u.com

Wednesday, December 19, 2018

Prince Georges County Public Schools
14201 School Lane, Room 130
Upper MarlboroMD20770

Ref: Benjamin Tasker Middle School

Dear Sam,

The results of the inspection and testing performed at **Benjamin Tasker Middle School, located at 4901 Collington Road, Bowie MD 20715**, are concluded and the findings are enclosed. On December 11, 2018, Benjamin Tasker Middle School was inspected for microbial contamination. The samples in this report indicate elevated levels of indoor microbial hazards for five of the ten specific location tested. Please refer to the laboratory analysis report for species, spore count per cubic meter, allergenic, pathogenic or toxic effects.

The enclosed report outlines my observations and recommendations based on the inspection and testing. The report includes personal protection recommendations, environmental controls, remediation recommendations, as well ESI's clearance requirements.
Next Steps:

1. Contact ESI with any questions you may have regarding our findings and recommendations.
2. *Note:* A copy of this report was sent to Alex Baylor per your request.
3. Make sure the remediation team understands the "Clearance Requirements." If they have any questions they may call us directly.
4. Contact ESI when the job is complete, so that we can schedule a Post Remediation Inspection as required.
5. Do not breach the containment for any reason as this may affect the testing.

I hope you found our service beneficial. If you have any questions or concerns, we are only a phone call away.

Respectfully,

Vinny Gigliotti (CIE)
Environmental Solutions, Inc.

AMERICAN COUNCIL for ACCREDITED CERTIFICATION
VINCENT GIGLIOTTI
CIE
BOARD CERTIFIED
#01232
Exp. 11/30/2020
Council-certified Indoor Environmentalist

ESI Environmental Solutions, Inc.
Consulting, Testing and Project Management

Ph: 410-867-6262 / Fax: 410-867-6333 / 6114 Drum Point Road, Deale, MD 20751
www.esi4u.com / email: info@esi4u.com

Remediation Protocol Report

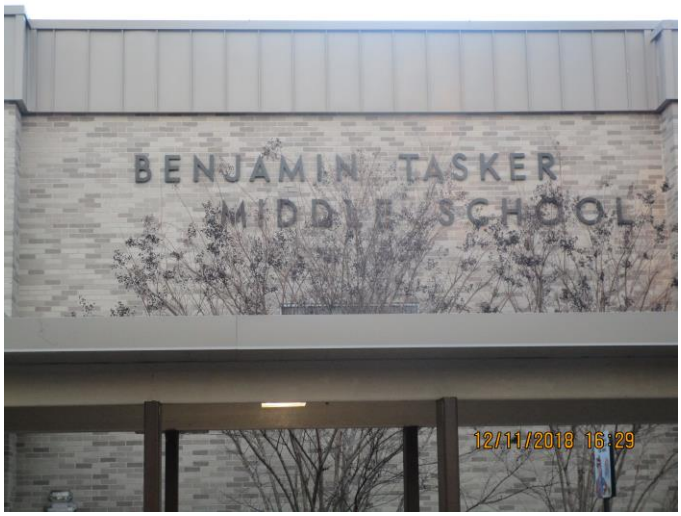
Project Contact Information

	Prince George's County Public Schools Sam Stefanelli 13300 Old Marlboro Pike, Trailer #5 Upper Marlboro, MD 20772 240-305-0795 sam.stefanelli@pgcps.org	

Property Location

4901 Collington Road, Bowie, MD 20715

Date of Inspection – 12/11/2018



Prepared By: Vinny Gigliotti

Certified Indoor Environmentalist (CIE)

Background Information

ESI was engaged to perform an inspection and testing within Benjamin Tasker Middle School. The purpose of this evaluation was to provide a visual assessment and microbial sampling to verify the presence or absence of mold growth. In addition, ESI will help determine the possible cause and effect of the suspected mold growth and or water intrusion.

Based on the observations and lab analysis, ESI has developed this Remediation Protocol outlining corrective action to alleviate possible health and environmental risks.

Executive Summary

During the inspection and testing of selected classrooms and common areas of the school, we found several classrooms that had minimal amounts of visible mold growth.

Those classrooms are:

- Room # 104 with mold growth under the sink.
- Room # 116 with mold on the backside of the projector screen.
- Room # 117 with mold on the ceiling tile.
- Room # 132 (band room) with mold on the guitar cases. This room also had elevated levels of Co2.
- Room # 215 with mold growth on the ceiling tiles.
- Room # 225 with mold growth under the 6’ tables

We conducted 11 indoor air quality samples in random areas of the school, and all of them had a normal fungal ecology that should not pose any health or environmental risk. Only one area (room 238) had slightly elevated levels of mold in the breathable air space, which was 2 raw spores higher than typical indoor mold spore concentration levels.

Indoor air samples and an outdoor control sample of microbial and particulate matter were collected to be analyzed by an independent laboratory. The dominate species found in the indoor air quality test was Aspergillus /Penicillium at minimal levels that should not pose any health or environmental risk. Room 238 was the only area we tested that had slightly elevated levels of mold spores in the air. The base line is 1,000 pores per cubic meter and room 238 had 1080- this too should not be problematic for most individuals.

The ceiling tiles throughout the classrooms and common hallways were in fair to poor condition with water stains and mold growth in various areas throughout the school. The stains were less than 1 foot in diameter and the mold growth was less than 6 inches in diameter on various ceiling tiles.

You will find our instrument readings for the specific locations inspected. Based upon the general condition of the school and our inspection and testing, we are developing room specific recommendations in addition to general remediation recommendations for other areas of the school.

The continuation of good housekeeping, preventative maintenance, and a seasonal microbial cleaning of this school should reduce the ubiquitous mold spores from aggressively colonizing in the future.

Observations of Inspected Areas

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 238	2393642		13	75	497	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• The ceiling tiles do not show any signs of water damage or visible microbial growth. • The wooden cabinetry does not show any signs of water damage or visible microbial growth. • The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins. • The desk, chairs, and tables do not show any signs of visible microbial growth. • No remediation is required.								
Special Requirements								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 208	2393653		12	76	877	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• The ceiling tiles do not show any signs of water damage or visible microbial growth. • The wooden cabinetry does not show any signs of water damage or visible microbial growth. • The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins. • The desk, chairs, and tables do not show any signs of visible microbial growth. • No remediation is required.								
Special Requirements								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 213	2393641		19	76	997	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The wooden cabinetry does not show any signs of water damage or visible microbial growth.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- The desk, chairs, and tables do not show any signs of visible microbial growth.
- No remediation is required.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 229	2393649		19	77	890	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The wooden cabinetry does not show any signs of water damage or visible microbial growth.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- The desk, chairs, and tables do not show any signs of visible microbial growth.
- No remediation is required.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 134	2393639		19	72	499	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The wooden cabinetry does not show any signs of water damage or visible microbial growth.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- The desk, chairs, and tables do not show any signs of visible microbial growth.
- No remediation is required.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 223			23%	72	556	001		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not have any visible signs of water stains or microbial growth.
- The wooden cabinetry along the left-hand side of the room does not have any visible signs of microbial growth.
- The 17 blacktop tables have minimal amounts of dust and debris on the surface. There were not any signs of visible microbial growth underneath of them.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 221			31	74	558	001		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The cinder block walls do not show any signs of water damage or visible microbial growth.
- There are approximately 30 student desks constructed of wood and metal. There were no signs of visible microbial growth under any of the desks.
- The plastic blue chairs appear to be clean and dust free.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- No remediation is required.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 224			33	73	789	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- There are 15 black top tables that do not have any visible signs of microbial growth or water damage.
- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The wooden cabinetry is clean, with no visible signs of microbial growth or water damage.
- The sink cabinetry is water damaged and stained by paints and product spills, NOT mold.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- No remediation is required.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 225			19	72	499	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	YES	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The wooden cabinetry does not show any signs of water damage or visible microbial growth.
- There is one 6ft table that has visible microbial growth underneath of it.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 218			35	75	579	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of visible microbial growth or water damage.
- The wooden cabinets do not show any signs of microbial growth or water damage.
- The children's desks do not show any signs of microbial growth or water damage.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- The teacher's desk, computer tables, and round tables do not show any signs of water damage or microbial growth.
- No remediation is required.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Common hallway from 218-225			32	71	699	001		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	N/A	N/A	N/A	N/A	N/A	NO	N/A
Observation Notes								
• Ceiling tiles in the common hallway show no signs of visible microbial growth and or water damage. • The ceiling tiles are in good condition. • No remediation is required.								
Special Requirements								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 215			19	74	776	001		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
YES	NO	NO	NO	NO	NO	NO	NO	Rusting
Observation Notes								
• Ceiling tiles do not show any signs of water damage or microbial growth, except for the back right corner of the classroom where there is a water stain on the ceiling tile and a water stain cascading down the cinder block wall next to the window. • The children's desks have a sealant underneath of them. The desks do not show any signs of visible microbial growth. • The teacher's desk and the 6-foot tables do not have any visible microbial growth under them. • The wooden cabinetry does not have any signs of visible microbial growth.								
Special Requirements								
• The right corner of the class room exterior wall has blistering paint and rust, which need to be further investigated from the building exterior.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 202			17	76	743	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- The ceiling tiles do not show any signs of water damage or visible microbial growth.
- The children's desks do not show any signs of mold growth underneath of them.
- The metal cabinetry next to the convector does not show any signs of water damage or microbial growth.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 205			19	69	779	001		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO

Observation Notes

- There are no signs of water damage or microbial growth.
- The student's desks, teacher's desk, and 6ft tables are clean.
- The metal cabinetry along the wall does not have any dust and debris nor does it have any signs of visible microbial growth.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- The exhaust vent in the ceiling does not have an accumulation of dust and debris.
- The masonry walls do not show any signs of water intrusion for microbial growth

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 104			44	76	578	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	YES	NO	NO	NO

Observation Notes

- The ceiling tiles are in good condition except for one ceiling tile in the left-hand corner has visible water damage and minimal amounts of an iron deposit from the water.
- The wooden cabinetry is clean and dry with no signs of visible microbial growth.
- Sink cabinetry has water damage on the base plate and visible signs of mold growth.
- The tables and chairs do not show any signs of microbial growth.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 103	2393643		24	71	448	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
Stains	NO	NO	NO	NO	NO	NO	NO	

Observation Notes

- Ceiling tiles in this classroom do not show any signs of water damage except for one tile along the exterior wall. Half of this two by four section of tile is water damaged.
- The wooden cabinetry does not have any visible signs of mold growth.
- The cabinetry under the sink shows signs of water damage, but there are no visible signs of microbial growth.
- The tables in this classroom do not have any signs of visible microbial growth.
- The children's desks do not show any signs of visible microbial growth.
- The teacher's desk does not show any signs of visible microbial growth.
- The convector does not show any signs of accumulated dust and debris and/or microbial growth on the fins.
- The metal cabinetry is clean with no signs of mold growth.

Special Requirements

NONE

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 116	2393640	YES	33	73	798	001		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• Ceiling tiles in this room did not show any signs of water damage or visible microbial growth. • The children's desks do not show any signs of mold growth under them. • The wooden cabinetry does not show any signs of visible mold growth. • The tables to not show any signs of visible mold. • There is visible microbial growth on the backside of the projector screen. A swab culture was taken.								
Special Requirements								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Boiler Room								
Visible Microbial Growth (VMG) Found								
Observation Notes								
• The pipes in the Boiler Room do not show any signs of microbial growth. There were several water stains and iron deposits or mineral deposits from the water. The pipe insulation appeared to be in good shape.								
Special Requirements								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 126	2393644		19	72	432	000		
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were no signs of water damage on the ceiling tiles. • There were no signs of visible microbial growth under any of the desks. • There were no signs of water damage to the cabinetry. • There were no signs of microbial growth on the convectors.								
Special Requirements								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
Room 132	2393638				**1787**			
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Guitar case	HVAC	Window
NO	NO	NO	NO	NO	NO	YES	NO	NO
Observation Notes								
• The ceiling tiles are in good shape and there are no signs of water damage or microbial growth. • The black chairs are dust free with no signs of microbial growth. • The wooden cabinetry does not have any signs of water damage or microbial growth. • The guitar cases have signs of microbial growth. • There is a distinct odor in the room that smells like an air freshener. • The Carbon Dioxide Detector indicated elevated levels of CO2 at 1787, whereas 1,000-2,000 ppm, could cause drowsiness and or headaches.								
Special Requirements								
• To reduce CO2 levels, indoor air should be removed, and outdoor air brought in. Perhaps your existing HVAC system can help with this, or perhaps you need additional ventilation equipment.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	Co	Other	
117 Library / class room	2358299							
Visible Microbial Growth (VMG) Found								
Ceiling Tiles	Walls	Teachers Desk	Children's Desk	Tables	Cabinets Shelving	Books	HVAC	Window
YES			NO				RUST	
Observation Notes								
• This is a complaint room as the occupants are experiencing respiratory dysfunction and headaches. • Ceiling tiles show signs of water damage and visible microbial growth along the exterior wall. • Diffuser shows signs of condensation and rust, but no signs of visible microbial growth. • There are no visible signs of microbial growth under any of the children's desks. • Inside of the teacher's office, there is water damage to one ceiling tile which has visible microbial growth surrounding the water damage.								
Special Requirements								
NONE								

Non-Viable Air Sampling/Results

Air samples are collected via Micro-5 or Air-o-Cell bio-aerosol cassettes. After five-minute sampling periods, the impacted samples are sealed and void of all ambient light. The samples are sealed, labeled and delivered to the laboratory within twenty-four hours. The third-party laboratory lab analysis provides qualitative and quantitative results for airborne mold spores.

Below you will notice Organisms, which is the genera detected both indoors and/or outdoors (control sample). The Raw Count is the actual number of spores counted on the slide and the Count/M^3 are the spores per cubic meter of air. The % of Total is calculated by the percentage of total spores on the slide to more easily differentiate the dominant genera in the breathable air space.

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 4901
P.O. Number: VJG
Project Name: Benjamin Tasker
Collected Date: 12/11/2018
Received Date: 12/14/2018 8:26:00 AM

SanAir ID Number
18057534
FINAL REPORT
12/17/2018 3:35:01 PM

Analyst: Smith, Kiersten

Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	18057534-001			18057534-002			18057534-003			18057534-004		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2393643			2393640			2393644			2393638		
Sample Identification	Room 103			Room 116			Room 126			Room 132 Music		
Sample Type	Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5		
Volume	25 Liters			25 Liters			25 Liters			25 Liters		
Analytical Sensitivity	40 Count/M³			40 Count/M³			40 Count/M³			40 Count/M³		
Background Density	1+			2+			1+			1+		
Other	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**
Dander	11	440	n/a	217	8680	n/a	41	1640	n/a	90	3600	n/a
Fibers				1	40	n/a				5	200	n/a
Fungal Identification	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**
Ascospores				1	40	7						
Aspergillus/Penicillium	7	280	70	8	320	53	6	240	75	1	40	14
Basidiospores	2	80	20	2	80	13	1	40	13	3	120	43
Cladosporium species	1	40	10							2	80	29
Curvularia species				1	40	7						
Smuts/Myxomycetes				3	120	20	1	40	13	1	40	14
TOTAL	**10**	**400**		**15**	**600**		**8**	**320**		**7**	**280**	

Signature: K. Smith Date: 12/17/2018 Reviewed: L. Claire Macdonald Date: 12/17/2018

SanAir Technologies Laboratory

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 4901
P.O. Number: VJG
Project Name: Benjamin Tasker
Collected Date: 12/11/2018
Received Date: 12/14/2018 8:26:00 AM

SanAir ID Number
18057534
FINAL REPORT
12/17/2018 3:35:01 PM

Analyst: Smith, Kiersten

Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	18057534-009			18057534-010			18057534-011			18057534-012		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2393653			2393642			2358299			2358296		
Sample Identification	Room 208			Room 238			Room 117			Outside		
Sample Type	Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5		
Volume	25 Liters			25 Liters			25 Liters			25 Liters		
Analytical Sensitivity	40 Count/M^3			40 Count/M^3			40 Count/M^3			40 Count/M^3		
Background Density	2+			1+			2			1+		
Other	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**
Dander	152	6080	n/a	45	1800	n/a	137	5480	n/a	7	280	n/a
Fibers	4	160	n/a	1	40	n/a	6	240	n/a	3	120	n/a
Fungal Identification	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**
Ascospores	1	40	8									
Aspergillus/Penicillium	3	120	23	27	1080	93	11	440	55	15	600	39
Basidiospores	3	120	23	1	40	3	7	280	35	7	280	18
Cladosporium species	1	40	8				2	80	10	16	640	42
Curvularia species	1	40	8									
Smuts/Myxomycetes	4	160	31	1	40	3						
TOTAL	**13**	**520**		**29**	**1160**		**20**	**800**		**38**	**1520**	

Signature: K. Smith Date: 12/17/2018 Reviewed: L. Claire Macdonald Date: 12/17/2018

SanAir Technologies Laboratory

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 4901
P.O. Number: VJG
Project Name: Benjamin Tasker
Collected Date: 12/11/2018
Received Date: 12/14/2018 8:26:00 AM

SanAir ID Number
18057534
FINAL REPORT
12/17/2018 3:35:01 PM

Analyst: Smith, Kiersten

Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	18057534-005			18057534-006			18057534-007			18057534-008		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2393639			2393649			2393637			2393641		
Sample Identification	Room 134 - Art			Room 229			Room 224			Room 213		
Sample Type	Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5		
Volume	25 Liters			25 Liters			25 Liters			25 Liters		
Analytical Sensitivity	40 Count/M³			40 Count/M³			40 Count/M³			40 Count/M³		
Background Density	2+			1+			1+			1+		
Other	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**
Dander	145	5800	n/a	19	760	n/a	36	1440	n/a	23	920	n/a
Fibers	2	80	n/a							2	80	n/a
Fungal Identification	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**
Ascospores												
Aspergillus/Penicillium	6	240	38	2	80	40	4	160	>99			
Basidiospores	3	120	19	1	40	20						
Cladosporium species	6	240	38	2	80	40				2	80	>99
Curvularia species												
Smuts/Myxomycetes	1	40	6									
TOTAL	**16**	**640**		**5**	**200**		**4**	**160**		**2**	**80**	

Signature: K. Smith Date: 12/17/2018 Reviewed: L. Claire Macdonald Date: 12/17/2018

Direct Identification Lab Results

Results for the direct identification analysis describe the amount of evidence indicating possible fungal growth. The presence of associated mycelial fragments and conidiophores help the analyst to determine which description to use: rare, light, moderate, or heavy. Please refer to the following table for interpretation of direct identification results.

Estimated Amount	Indication of Growth	Evidence of Mycelial Fragments / Conidiophores
Rare	Not Likely	None
Light	Possible	Some, 10 to 25% of Covered
Moderate	Probable	Abundant, 25 to 50% of Covered
Heavy	Significant	Throughout, 50 to 100% of Covered

SanAir Technologies Laboratory

SanAir ID Number
18057534
FINAL REPORT
12/17/2018 3:35:01 PM

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 4901
P.O. Number: VJG
Project Name: Benjamin Tasker
Collected Date: 12/11/2018
Received Date: 12/14/2018 8:26:00 AM

Analyst: Smith, Kiersten

Direct Identification Analysis

SanAir ID: 18057534-013 Sample #:Swab Room 116 Projector

D1 - Direct Identification Analysis on Surface Swab using STL 104

Direct ID of Mold

Fungi	Estimated Amount
Cladosporium species	Rare

SanAir ID: 18057534-014 Sample #:Swab Room 117 Ceiling Tile

D1 - Direct Identification Analysis on Surface Swab using STL 104

Direct ID of Mold

Fungi	Estimated Amount
Stachybotrys species	Rare

Estimated Amount	Indication of Growth	Evidence of Mycelial Fragments/Conidiophores
Rare	Not Likely	None
Light	Possible	Some, 10 to 25% of Tape Covered
Moderate	Probable	Abundant, 25 to 50% of Tape Covered
Heavy	Significant	Throughout, 50 to 100% of Tape Covered

*Refer to additional information page for further details

Signature: K. Smith
Date: 12/17/2018

Reviewed: L. Claire Macdonald
Date: 12/17/2018

SanAir Technologies Laboratory

SanAir ID Number
18057534
FINAL REPORT
12/17/2018 3:35:01 PM

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 4901
P.O. Number: VJG
Project Name: Benjamin Tasker
Collected Date: 12/11/2018
Received Date: 12/14/2018 8:26:00 AM

Organism Descriptions

The descriptions of the organisms presented are derived from various reference materials. The laboratory report is based on the data derived from the samples submitted and no interpretation of the data, as to potential, or actual, health effects resulting from exposure to the numbers of organisms found, can be made by laboratory personnel. Any interpretation of the potential health effects of the presence of this organism must be made by qualified professional personnel with first hand knowledge of the sample site, and the problems associated with that site.

Dander - Comprised of human and/or animal skin cells. Counts may be higher in carpeted rooms and in rooms with more traffic.
Health Effects: May cause allergies.

Fibers - This category can include clothing, carpet, and insulation fibers.

Ascospores - From the fungal Subphylum Ascomycotina. Ascospores are ubiquitous in nature and are commonly found in the outdoor environment. This class contains the "sac fungi" and yeasts. Some ascospores can be identified by spore morphology, however; some care should be excercised with regard to specific identification. They are identified on tape lifts and non-viable analysis by the fact that they have no attachment scars and are sometimes enclosed in sheaths with or without sacs. Ascomycetes may develop both sexual and asexual stages. Rain and high humidity may help asci to release, and dispurse ascospores, which is why during these weather conditions there is a great increase in counts.
Health Effects: This group contains possible allergens.

Aspergillus/Penicillium - These spores are easily aerosolized. Only through the visualization of reproductive structures can the genera be distinguished. Also included in this group are the spores of the genera Acremonium, Phialophora, Verticillium, Paecilomyces, etc. Small, round spores of this group lack the necessary distinguishing characteristics when seen on non-viable examination.
Health Effects: Can cause a variety of symptoms including allergic reactions. Most symptoms occur if the individual is immunocompromised in some way (HIV, cancer, etc). Both Penicillium and Aspergillus spores share similar morphology on non-viable analysis and therefore are lumped together into the same group.

Basidiospores - From the Subphylum Basidiomycotina which contains the mushrooms, shelf fungi, and a variety of other macrofungi. They are saprophytes, ectomycorrhizal fungi or agents of wood rot, which may destroy the structure wood of buildings. It is extremely difficult to identify a specific genera of mushrooms by using standard culture plate techniques. Some basidiomycete spores can be identified by spore morphology; however, some care should be exercised with regard to specific identification. The release of basidiospores is dependant upon moisture, and they are dispersed by wind.
Health Effects: Many have the potential to produce a variety of toxins. Members of this group may trigger Type I and III fungal hypersensitivity reactions. Rarely reported as opportunistic pathogens.

Cladosporium species - The most commonly identified outdoor fungus. The outdoor numbers are reduced in the winter and are often high in the summer. Often found indoors in numbers less than outdoor numbers. It is commonly found on the surface of fiberglass duct liner in the interior of supply ducts. A wide variety of plants are food sources for this fungus. It is found on dead plants, woody plants, food, straw, soil, paint and textiles. Often found in dirty refrigerators and especially in reservoirs where condensation is collected, on moist window frames it can easily be seen covering the whole painted area with a velvety olive green layer.
Health Effects: It is a common allergen. It can cause mycosis. Common cause of extrinsic asthma (immediate-type hypersensitivity: type I). Acute symptoms include edema and bronchiospasms, chronic cases may develop pulmonary emphysema. Illnesses caused by this genus can include phaeohyphomycosis, chromoblastomycosis, hay fever and common allergies.
References: Flannigan, Brian, Robert A. Samson, and J. David Miller, eds. Microorganisms in Home and Indoor Work Environments: Diversity, Health Impacts, Investigation, and Control. London and New York: Taylor & Francis, 2001.

SanAir Technologies Laboratory

SanAir ID Number
18057534
FINAL REPORT
12/17/2018 3:35:01 PM

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 4901
P.O. Number: VJG
Project Name: Benjamin Tasker
Collected Date: 12/11/2018
Received Date: 12/14/2018 8:26:00 AM

Organism Descriptions

The descriptions of the organisms presented are derived from various reference materials. The laboratory report is based on the data derived from the samples submitted and no interpretation of the data, as to potential, or actual, health effects resulting from exposure to the numbers of organisms found, can be made by laboratory personnel. Any interpretation of the potential health effects of the presence of this organism must be made by qualified professional personnel with first hand knowledge of the sample site, and the problems associated with that site.

Curvularia species - Curvularia is found on plant material and is considered a saprobe. It has also been isolated from dust samples and from wallpaper.
Health Effects: It has been reported to cause type I hypersensitivity and to be a cause of allergic fungal sinusitis. It may cause corneal infections, mycetoma and infections in immune compromised hosts.
References: De Hoog, G.S., J. Guarro, J. Gene, and M.J. Figueras. Atlas of Clinical Fungi, 2nd Edition. The Netherlands: CBS, 2000.

Smuts/Myxomycetes - Smuts and Myxomycetes are parasitic plant pathogens. They are typically grouped together due to their association with plants, the outdoors and because they share similar microscopic morphology.
Health Effects: Can produce type I fungal hypersensitivity reactions.
References: Martin, G.W., C.J. Alexopoulos, and M.L. Farr. The Genera of Myxomycetes. Iowa City, Iowa: University of Iowa Press, 1983.

Stachybotrys species - This organism is rarely found in outdoor samples. It is usually difficult to find in indoor air samples unless it is physically disturbed because the spores are in a gelatinous mass. Grows well on wet media, preferably containing cellulose. It proliferates in the indoor environment with long term water damage, growing on wallpaper, gypsum board, and textiles. As a general rule, air cultures for Stachybotrys yields unpredictable results, mainly due to the fact that this fungus is usually accompanied by other fungi such as Aspergillus and Penicillium that normally are better aerosolized than Stachybotrys. This is a slow growing fungus on media. It does not compete well with other rapidly growing fungi. The black fungi grow on building material with high cellulose content and low nitrogen content. Appropriate media for the growth of this organism will have high cellulose content and low nitrogen content.
Health Effects: It has worldwide distribution and has been reported to cause dermatitis, cough, rhinitis, and headache, although no definitive reports of human infections have been verified. It has the ability to cause type I hypersensitivity. It is a documented mycotoxin producer.
References: Flannigan, Brian, Robert A. Samson, and J. David Miller, eds. Microorganisms in Home and Indoor Work Environments: Diversity, Health Impacts, Investigation, and Control. London and New York: Taylor & Francis, 2001.

Carbon Monoxide Thresholds

Carbon monoxide sampling is performed using a Pyle PCM005 Carbon Monoxide Meter. Carbon monoxide (CO) is a colorless, odorless, tasteless, and toxic air pollutant, which is produced in the incomplete combustion of carbon-containing fuels, such as gasoline, natural gas, oil, coal, and wood. Please refer to the outline below for exposure to carbon monoxide.

9 ppm	CO Max prolonged exposure (ASHRAE standard)
35 ppm	CO Max exposure for 8-hour work day (OSHA)
800 ppm	CO Death within 2 to 3 hours
12,800 ppm	CO Death within 1 to 3 minutes

Carbon Dioxide Thresholds

Carbon dioxide sampling is performed using an AZ-7755 Carbon Dioxide Detector. Carbon dioxide (CO2) is a heavy colorless gas CO_2 that does not support combustion, dissolves in water to form carbonic acid, is formed especially in animal respiration and in the decay or combustion of animal and vegetable matter, is absorbed from the air by plants in photosynthesis, and is used in the carbonation of beverages. Please refer to the outline below for exposure to carbon dioxide.

250-350 ppm	Normal background concentration in outdoor ambient air
350-1,000 ppm	Concentrations typical of occupied indoor spaces with good air exchange
1,000-2,000 ppm	Complaints of drowsiness and poor air.
2,000-5,000 ppm	Headaches, sleepiness and stagnant, stale, stuffy air. Poor concentration, loss of attention, increased heart rate and slight nausea may also be present.
5,000 ppm	Workplace exposure limit (as 8-hour TWA) in most jurisdictions.
> 40,000 ppm	Exposure may lead to serious oxygen deprivation resulting in permanent brain damage, coma, even death.

Recommended Personal Protection Equipment (PPE)

The following procedures are recommended:

When it is time to begin mold remediation, require that all occupants leave the remediation area, *this means the contained areas and egress areas*, during the actual work performance. The occupants are not to return until the mold remediation is completed. The reason for this precaution is that the very removal of contaminated building materials puts an even greater number of mold spores into the breathable air space, causing potential health harm to the occupants of that space if they were present during mold remediation.

Personnel responsible for remediation should have received training on the proper clean-up methods, personal protection, and potential health hazards for microbiological organisms.

Respiratory protection should be in accordance with the Occupational Safety and Health Association (OSHA) Respiratory Protection Standard (29 CFR 1910.134). In addition, gloves and eye protection should also be used.

All mold remediation workers need to be protected by personal protective gear always when working inside the impacted areas. Personal protective gear should include ALL the following:

1. One-piece facemask to protect worker's eyes from mold spores and to filter out mold spores from being breathed in through nose and mouth with air respirator utilizing air filter cartridges with a minimum NIOSH rating of N-95.
2. Tyvek or comparable one-piece body suit with head cover (hood).
3. Tyvek or comparable booties to cover shoes, sock, and feet.
4. Rubber gloves.
5. Ear plugs.

No food or drink can be present in, or consumed inside, the contained remediation areas. Mold spores can be ingested into the body by food and drink being contaminated by airborne mold spores.

Even though protected by the personal protective gear detailed above, any workers with open wounds or sores should have such wound/sores totally covered with plastic coated bandages/dressing. Mold spores can enter the body through open wounds and sores.

Remediation recommendations for:

- Room # 104 with mold growth under the sink.
- Room # 116 with mold on the backside of the projector screen.
- Room # 117 with mold on the ceiling tile.
- Room # 132 (band room) with mold on the guitar cases. This room also had elevated levels of Co2.
- Room # 215 with mold growth on the ceiling tiles.
- Room # 225 with mold growth under the 6' tables

Due to the health concerns, before any antimicrobials, detergents or chemicals are introduced into this environment, an SDS detailing such agents must be provided to the client and posted near the entrance of each Classroom and Common Area in which microbial cleaning is being performed.

Contractors and the workforce conducting the services below should **READ AND FOLLOW THE ENTIRE PROTOCOL** to assist them in a successful remediation effort. Owners or authorized personnel must grant ESI permission to discuss the contents of this protocol with anyone other than employed service providers.

Content Instructions:

All contents and/or furnishings with microbial growth and/or accumulations of dust should be cleaned and sanitized. General microbial cleaning includes the following:

1. When HEPA vacuuming microbial growth and/or accumulations of dust, use a bristle brush attachment.
2. When damp-wiping surfaces, use a soft cloth dampened with an EPA registered botanical solution such as Benefect or equivalent. Allow treated surface to dry. Use a new cloth for each piece of furniture and/or item. Do not reuse cloths, which will inevitably spread mold spores.
3. Re-HEPA vacuum surfaces with a clean bristle brush.

FURNITURE	
Item(s)	**Suggested** Cleaning Procedures
Upholstered teacher's chairs Seat cushions Seat covers	If the furniture has removable cushions, remove each cushion and HEPA vacuum all sides, as well as all surfaces of the furniture. If the cushions are not removable, HEPA vacuum all surfaces, paying careful attention to the frame/mechanisms and all crevices between the cushions and frame. Damp-wipe all surfaces with Benefect or equivalent. Re-HEPA vacuum surfaces with a clean bristle brush.
Wood "U-shaped" tables Steel/wood round tables Steel/wood rectangular tables Wood rocking chairs Steel/wood student desks Steel/high-density polyethylene student chairs Bookshelves and metal shelving Cabinets Push-carts	Remove contents to ensure cleaning of all surfaces. HEPA vacuum all surfaces. Pay careful attention to the underside of the tables, desks, and chairs. Damp-wipe all surfaces with Benefect or equivalent. Re-HEPA vacuum surfaces with a clean bristle brush.
ELECTRONICS, ETC.	
Item(s)	**Suggested** Cleaning Procedures
Televisions Computer monitors Projectors	Unplug. HEPA vacuum the exterior of all electronics. Damp-wipe housing with Benefect or equivalent. Re-HEPA vacuum exterior surfaces with clean bristle brush.
Pull down projector screens Pull down maps	HEPA vacuum surfaces of spring holder and screen/map holder. Damp wipe all surfaces with Benefect or equivalent.
Loud speakers	Speaker covers should be HEPA vacuumed then removed to allow access to the speaker itself. Speaker cabinet should be HEPA vacuumed, damp-wiped, then re-HEPA vacuumed. Carefully wet-wipe the speaker itself.
VCR DVD	Unplug. HEPA vacuum, damp-wipe, then re-HEPA vacuum the exterior surfaces.

Ceiling Tile Instructions:

The water damaged acoustic ceiling tiles should be removed and discarded. ESI recommends placing the ceiling tiles into black contractor bags upon removal.

Any additional water damaged ceiling tiles should be removed as needed. Once the acoustic ceiling tiles are removed and the ceiling cavities are exposed, remove any contaminated or water damaged cellulosic materials not noted or detected during the initial inspection. In addition, seal the insulation joints on the plumbing lines to prevent condensation within the ceiling cavities.

Any contractor applying chemicals should follow manufactures dilution instruction and a SDS must be posted. This includes products such as: FOSTERS 40-20, Fiberlock/IAQ products, Benefect, LYSOL, MICROBAN, as well as other disinfectants and deodorizers.

ESI has included further instruction in the Clearance Requirements and Clearance Checklist below, to assist you in a successful remediation attempt, and to reduce the risk of any cross contamination of microbial hazards.

Post Remediation Clearance Requirements

ESI clearance verification requirements are based on experience from hundreds of projects annually and sources, including the AIHA, EPA, NYG, ACGIH and IICRC S500/S520, and on professional judgment on a case by case basis. The following requirements include the remediation and possible affected areas.

Scheduled clearance testing should be coordinated by the contractor or responsible party of the remediation project within 72 hours of completion. The HEPA filtered air scrubbers should be disengaged and sealed at least four hours prior to inspection, preferably not to exceed 72 hours prior. Ensure that the air has been changed at least 8-12 times before scheduling air sampling.

The ventilation systems should be operating properly during the IAQ testing.

Visual Inspection

1. No visible microbial growth shall be evident. (Effective Source Removal)
2. No significant visible dust shall be evident. (Effective HEPA vacuum)
3. No significant odors shall be evident. (MVOCs and VOCs)

Air Sampling

Typical Indoor Mold Spore Concentration - According to the EAA (Environmental Analysis Associates)

Description	Spores/Cubic Meter	Predominant Types
"Clean" building	less than 2,000	Total for all spore types
	less than 1,000	Penicillium, Aspergillus
Possible Indoor Amplification	1,000 - 5,000	Penicillium, Aspergillus, Cladosporium
Indoor Amplification likely	5,000 - 10,000	Penicillium, Aspergillus, Cladosporium
Chronic Indoor Amplification	10,000 - 500,000	Penicillium, Aspergillus, Cladosporium
Inadequate flood cleanup or indoor demolition of surfaces	50,000 - 10,000,000	Penicillium, Aspergillus, Stachybotrys, Cladosporium, Chaetomium, Basiomycetes Tricoderma, Ulocladium, etc.

Everyone breathes in thousands of mold spores daily in all environments. ESI uses the air quality of the outside as a baseline sample to support or test hypotheses of contamination and remediation issues. Above all, the visual and olfactory observations of an indoor environmental professional are paramount and may supersede any questionable sampling results.

“The ultimate criteria for the adequacy of abatement efforts for treating microbial and/or biological contaminations, is the ability of people to occupy or re-occupy the space without health complaints or physical discomfort". (ACGIH 15-5 Judging Remediation Effectiveness)

Clearance Checklist

This checklist is designed for the remediation supervisor to cross check the items related to this job and ensure they are completed prior to scheduling a clearance test. If items are not completed, and the clearance test is scheduled and can/should not be performed, a site visit fee will be invoiced to the client and possibly back charged to the remediation contractor.

	Client Name:		**Contractor:**	
	Site Observation			
	□ Visual Pass □ Visual Fail □ Clear to Close	Yes	No	**COMMENTS:**
1.	Was the moisture problem fixed?	☐	☐	
2.	Are SDS posted on site?	☐	☐	
3.	Is there any visible microbial growth present in the remediated areas?	☐	☐	
4.	Is the overall jobsite clean and free of any visible dust and debris?	☐	☐	
5.	Is there a presence of MVOC's or other odors?	☐	☐	
6.	Has all furniture and other contents been effective cleaned and sanitized?	☐	☐	
7.	Have all water damaged acoustic ceiling tiles been removed to their approximate measurements as recommended within the remediation protocol?	☐	☐	
8	Was all equipment turned off and all the equipment filters covered/sealed?	☐	☐	
9.	Were HEPA filter air scrubbers on site?	☐	☐	
10.	HVAC: Were all return & supply registers cleaned and sanitized with an anti-microbial solution?	☐	☐	
11.	HVAC: Were the filter(s) replace?	☐	☐	

Industry References

Since the 1993 New York City Department of Health (NYCDOH) document (Assessment and remediation of *Stachybotrys Atra* in Indoor Environments) was produced, several other guidance documents have been written. This report was developed in accordance with and including:

- *Fungal Contamination in Buildings: A Guide to Recognition and Management* (Health Canada, 1995).
- *Control of Moisture Problems Affecting Biological Indoor Air Quality* (Flannigan and Morey, 1996).
- *Bioaerosols: Assessment and Control* (American Conference of Government Industrial Hygienists [ACGIH], 1999).
- *Guidelines on Assessment and Remediation of Fungi in Indoor Environments* (NYCDOH, 2000). [external link]
- *Mold Remediation in Schools and Commercial Buildings* (U.S. EPA, 2001).
- *Report of the Microbial Growth Task Force* (The American Industrial Hygiene Association, 2001).
- *Fungal Contamination: A manual for investigation, remediation and control (BECi) 2005*.
- *29 CFR 1910, Occupational Safety and Health Standards for General Industry, U.S. Department of Labor*
- Institute of Inspection, Cleaning and Restoration Certification Standard IICRC S520 *29 CFR 1926, Occupational Safety and Health Standards for the Construction Industry*, U.S. Department of Labor
- *40 CFR 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), U.S. Environmental Protection Agency*
- *ACR 2006, Assessment, Cleaning and Restoration of HVAC Systems, National Air Duct Cleaners Association, 2006**
- *ASHRAE Standards 62.1 or 62.2*
- *ASTM D-1653, Standard Test Methods for Water Vapor Transmission of Organic Coating Films*
- *Bioaerosols: Assessment and Control,* American Conference of Governmental Industrial Hygienists, 1999
- *Field Guide for Determination of Biological Contaminants in Environmental Samples, American Industrial Hygiene Association, 2005*
- *A Guide for Mold Remediation in Schools and Commercial Buildings, US Environmental Protection Agency, 2001 Protecting the Built Environment: Cleaning for Health, Michael A. Berry Ph.D., 1993*
- *IICRC S100 Standard and Reference Guide for Professional Carpet Cleaning, Fourth Edition, Institute of Inspection, Cleaning and Restoration Certification, (S100)**
- *IICRC S300 Standard and Reference Guide for Professional Upholstery Cleaning, First Edition, Institute of Inspection, Cleaning and Restoration Certification, (S300)**
- *ANSI/IICRC S500 Standard and Reference Guide for Professional Water Damage Restoration, Third Edition, Institute of Inspection, Cleaning and Restoration Certification, (S500)**

Limitations and Exclusions

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by ESI in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and material that were observed at the time the fieldwork was conducted. The scope of work for this project did not include an assessment of other environmental conditions which might exist on the property. No inferences regarding other conditions, locations or materials at a later or earlier time may be made based on the contact of this report. No warranty is made. ESI liability and that of its contractors and subcontractors, arising from any services rendered hereunder, shall not exceed the total fee paid by the client to ESI. This report was prepared for the sole use of our client. The use of this report by anyone other than our client or ESI is strictly prohibited without the expressed written consent of ESI. Portions of this report may not be used independently of the entire report.