MOLD AND MOISTURE ASSESSMENT REPORT

BELLEVUE ELEMENTARY SCHOOL

2301 E GRACE ST
RICHMOND, VIRGINIA 23223

ECS PROJECT NO. 47:14153-K

FOR: RICHMOND PUBLIC SCHOOLS FACILITY SERVICES

FEBRUARY 26, 2024

February 26, 2024

Mr. Ronald Hathaway Jr.
Richmond Public Schools Facility Services
1461-A Commerce Road
Richmond, Virginia 23224
Rhathawa@rvaschools.net

ECS Project No. 47:14153-K

Reference: Mold and Moisture Assessment, Bellevue Elementary School, 2301 E Grace St, Richmond, Virginia

Dear Mr. Hathaway Jr.:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Richmond Public Schools Facility Services with the results of the above-referenced Mold and Moisture Assessment performed at Bellevue Elementary School located at 2301 E Grace St in Richmond, Virginia. This report summarizes our observations, analytical results, findings, and recommendations related to the work performed. The work described in this report was performed by ECS in general accordance with the Scope of Services described in ECS Proposal Number 47:47:30369-EP and the terms and conditions of the agreement authorizing those services.

ECS appreciates this opportunity to provide Richmond Public Schools Facility Services with our services. If we can be of further assistance to you, please do not hesitate to contact us.

Sincerely,

ECS Mid-Atlantic, LLC

Israel Santana, III
Environmental Project Manager
isantana@ecslimited.com
804-353-6333

Christopher J. Chapman, CIH
Director of Industrial Hygiene
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804-353-6333

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1.0 PROJECT DESCRIPTION

The building located at 2301 E Grace St in Richmond, Virginia is a school building known as Bellevue Elementary School. The building contains approximately 42,135 square feet of space and was reportedly originally constructed in 1900.

Based on information provided by Richmond Public Schools Facility Services representatives, ECS understands that building occupants have reported mold and moisture concerns in the building to the Richmond Public Schools Facility Services Department. Richmond Public Schools Facility Services has requested ECS conduct a Mold and Moisture Assessment to evaluate these concerns. In addition, ECS was requested to collect samples of suspect asbestos containing materials that are determined to be moisture or mold impacted requiring remediation.

2.0 PURPOSE

The purpose of the Mold and Moisture Assessment was to conduct visual observations and testing for mold and moisture to identify evidence of moisture-affected building materials or selective amplification of mold within tested areas of the subject building and determine if asbestos containing materials are present in the tested areas that may require mold remediation.

3.0 METHODOLOGY

ECS performed the authorized Scope of Services in general accordance with our proposal, standard industry practices and methods specified by guidelines and industry standards for the identification of mold and moisture-affected building materials and asbestos containing building materials.

3.1 Mold and Moisture

The assessment included a non-invasive visual and olfactory survey for evidence of mold and moisture within the subject building. The assessments focused on the client-selected areas indicated by Richmond Public Schools Facility Services. The ECS site personnel observed readily accessible areas and selected building materials to evaluate visible suspect fungal growth and/or moisture impacted materials. A reasonable effort was made to identify water and mold impacted areas; however, this does not imply a guarantee that all possible reservoirs of mold were identified because mold or water-impacted building materials may be hidden by walls, flooring, partitions, etc.

Ambient temperature and relative humidity were measured during the survey using a Q-Trak hand held IAQ meter and Fluke thermo-hygrometer. The purpose of these measurements was to identify elevated interior humidity levels, which could potentially support indoor mold growth or indicate ongoing moisture problems.

ECS measured the moisture content in various building materials in multiple locations within the surveyed areas utilizing a Protimeter brand hand-held moisture meter. The instrument may be operated in two independent modes. The non-destructive “search mode” uses radio-frequency induction to detect moisture in a substrate. Using the search mode, the Protimeter is capable of detecting moisture in solid, homogeneous materials at depths up to 10 millimeters (0.39 inches). When operated in search mode, the Protimeter produces qualitative readings (“dry”, “at risk”, “wet”) along with a relative numerical reading corresponding to the appropriate qualitative reading. The

Protimeter may also be used in “measure mode” to obtain actual moisture percentage readings in wood and other solid, non-conductive materials. Measurements are taken by inserting the pins of a moisture probe into the material being tested. For wood substrates, the moisture percentage is expressed as “% Moisture Content (MC)”; for other materials this number is expressed as “% Wood Moisture Equivalent (WME)”. In general, %MC or %WME values of less than 17 are considered “dry”, values greater than or equal to 17 but less than 20 are considered “at risk” for moisture damage, and values of 20 or greater are considered “wet”. Values of greater than 17 % typically are considered at risk for mold growth. This was not a comprehensive moisture mapping survey of all building materials within the areas surveyed but rather a non-invasive survey of moisture in select areas of specific building materials which may be impacted by moisture.

ECS measured the moisture content in various building materials in multiple locations within the surveyed areas utilizing a Delmhorst brand hand-held moisture probe (Model BD 2100). Based on the Delmhorst moisture meter scales for materials, moisture levels greater than 0.5% are considered elevated for drywall wallboard materials and are considered at risk for mold growth. Levels greater than 15% for wood materials and greater than 85% for plaster surfaces are considered elevated. This was not a comprehensive moisture mapping survey of all building materials within the areas surveyed but rather a non-invasive survey of moisture in select areas of specific building materials which may be impacted by moisture.

Fungal spore air samples were collected using calibrated self contained battery operated air sampling pumps and Allergenco® cassettes. Samples were transported to Environmental Hazards Services located in Richmond, Virginia for analysis. Environmental Hazards Services is accredited by the Environmental Microbiology Laboratory Accreditation Program, administered by the American Industrial Hygiene Association. Air samples were reported to the genus or group level according to the laboratory standard quantification procedures.

Samples collected were transported/shipped to Environmental Hazards Services (EHS) located in Richmond, Virginia for analysis. EHS is an AIHA (American Industrial Hygiene Association) EMLAP (Environmental Microbiology Laboratory Accreditation Program) accredited laboratory. The samples were analyzed for total spore concentrations in accordance to the laboratory’s quantification methods.

It is important to note that fungal spore samples represent a snapshot in time of a constantly changing microbiome. Environmental conditions such as temperature and humidity may influence sample results. The goal of the sampling performed was not to establish precise numerical concentrations over time, but rather to generally identify the dominant fungi in the sampled locations and the general significance of their relative concentrations as compared to outdoor concentrations or unaffected locations.

4.0 RESULTS

The following is a summary of laboratory results, measurements, findings and observations.

Based on our observations and sampling data, ECS does not see any reason why the school should not be continued to be used based on our experience with similar school buildings across the Richmond area and our findings for this study. In general, our air sample results did not indicate any

significantly elevated spore trap air samples in the classrooms above outdoor comparison samples. As would be expected with any school building, new or old, areas of mold and moisture were observed and it is our understanding that the recommendations identified in the assessment reports are being addressed or will be addressed by Richmond Public Schools Facility Services.

4.1 Mold and Moisture

Main School Building

- Moisture stained ceiling tiles were observed sporadically in areas throughout the hallways, classrooms, and cafeteria in areas where drop ceiling tiles are present. None of the areas tested were determined to have elevated moisture content. In general much of the staining observed on ceiling tiles was likely caused by old roof leaks, or pipe or HVAC condensation leaks;
- Suspect mold was observed on the ceiling mounted fan coil units throughout the school. ECS observed heavy dust on the face of the units and suspect mold was growing on the accumulated dust.
- ECS also observed heavy mold growth on the fiberglass pipe insulation associated with the ceiling mounted fan coil units throughout the school;
- ECS observed the plaster ceiling and wall above the window in room 303 with obvious water damage potentially from a roof leak; Moisture readings collected from these areas were in the dry range;
- In a office space beside the media center (room unlabeled), ECS observed heavy damage to the plaster wall; which was below a duct which went through the wall; This area tested dry however with the moisture meter.
- Heavy plaster damaged was observed from a water intrusion event above the exterior window in room 307; Moisture readings taken from wall measured in the dry range;
- In room 304 (closet) ECS observed suspect mold were the wall meets the ceiling in the closet; This area tested dry.
- ECS observed damaged plaster wall and ceiling within the auditorium in various locations. ECS believes the plaster damage may be caused by a roof leak; These areas tested dry with the moisture meter.
- Water intrusion appeared to be occurring in the basement level in room 101. ECS observed the brick on the exterior wall to be impacted by a water intrusion event; Moisture readings were in the dry range at the time of the site visit.

Exterior Envelope

- ECS observed areas of failed caulk and window glaze throughout the exterior of the building from normal age and weathering. However, ECS was unable to test this material due to metal window gate blocking the window from being access and tested for asbestos;
- ECS also observed the window outside room 101 to have heavy staining on the concrete outside of the window; The window sill was also damaged possibly from water intrusion.

4.1.1 Spore-Trap Air Samples

Fungal spore-trap air samples were collected from the surveyed areas. Representative exterior samples were collected for comparison. The following table summarizes the results of sample analysis reported in spore counts per cubic meter of air.

ECS notes that standalone air purifiers were in use in several classrooms and other sampled areas, which may impact the concentration of fungal spores observed in samples collected in these spaces.

Spore-Trap Sample Results

Sample Number	Sample Location	Total Fungal Spore Concentration (count/cubic meter)
A1	Outdoors, main entrance	4800
A2	Classroom 201	310
A3	Classroom 202	410
A4	Classroom 203	360
A5	Classroom 204	160
A6	Classroom 205	440
A7	Classroom 206	87
A8	Classroom 207	73
A9	Classroom 208	73
A10	Classroom 209	120
A11	Media center, west end	150
A12	Media center, east end	130
A13	Classroom 301	200
A14	Classroom 302	110
A15	Classroom 303	220
A16	Classroom 304	87
A17	Outdoors, main entrance	1900
A18	Classroom 305	120
A19	Classroom 306	93
A20	Classroom 307	93
A21	Classroom 308	280

Sample Number	Sample Location	Total Fungal Spore Concentration (count/cubic meter)
A22	Classroom 309	320
A23	Upstairs office corridor	230
A24	Teachers lounge	27
A25	Main office hall	87
A26	Auditorium	27
A27	Classroom 100	130
A28	Classroom 101	280
A29	Classroom 103	100
A30	Classroom 105	240
A31	Kitchen	310
A32	Cafeteria	200
A33	Main hall at entrance	210
A34	Outdoors, main entrance	2400

ECS notes that several indoor plants were observed in the area of the main office. Indoor plants may contribute elevations in airborne fungal spores, however, ECS did not observe significant elevations in the air samples collected.

Analytical results of the mold air testing determined that total spore counts reported in the rooms tested in the school were below the level of total airborne mold spores reported on the outside samples. The fungal genera detected were also generally comparable with fungal genera detected outdoors.

There are currently no accepted regulatory standards or guidelines with respect to acceptable fungal levels inside buildings. Generally total spore counts and fungal genera detected on spore trap samples collected on the interior should be comparable to and less then outdoor samples. It is important to note however that spore trap measurements can fluctuate rapidly and the readings reported should not be used as a definitive indication that mold and or health hazards related to mold are present or absent.

4.1.2 Temperature and Humidity

The key to understanding humidity is that warmer air can contain greater quantities of moisture than cooler air. Relative humidity is defined as the ratio of the amount of moisture contained in the air to the maximum amount of moisture the air can contain at that temperature. The dew point

temperature is defined as the temperature at which the amount of moisture in the air reaches saturation. The dew point is a more accurate indication of the actual amount of moisture in the air, because it is independent of temperature.

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) has published several standards for ventilated buildings. *ANSI/ASHRAE Standard 62.1-2019, Ventilation for Acceptable Air Quality* specifies that indoor humidity should be maintained below 60 degrees Fahrenheit (°F) dew point temperature. The EPA recommends that indoor relative humidity be maintained below 60%, ideally 30-50%, to prevent mold growth. The *OSHA Technical Manual,* Section III, Chapter 2 for Indoor Air Quality Investigations specifies a thermal comfort range of 68°F to 76°F and a relative humidity range of 20% to 60% to maximize comfort for all occupants.

The following table summarizes the indoor air temperature and relative humidity readings collected by ECS during the survey.

The temperature and relative humidity readings collected during this assessment were considered normal and within the recommended ranges.

Temperature and Relative Humidity

Location	Relative Humidity (%)	Temperature (°F)
Outdoors, main entrance	34.3	60.0
Classroom 201	28.7	72.5
Classroom 202	29.5	72.4
Classroom 203	28.5	73.4
Classroom 204	27.6	73.3
Classroom 205	29.5	73.0
Classroom 206	28.2	73.8
Classroom 207	28.8	71.8
Classroom 208	31.4	70.6
Classroom 209	30.1	71.1
Media center west end	30.7	72.9
Media center east end	29.6	72.5
Classroom 301	29.3	72.2
Classroom 302	29.3	72.7
Classroom 303	29.5	72.2
Classroom 304	29.5	72.9

Location	Relative Humidity (%)	Temperature (°F)
Outdoors, main entrance	38.2	60.5
Classroom 305	30.8	71.9
Classroom 306	30.6	71.6
Classroom 307	31.1	70.9
Classroom 308	31.4	71.4
Classroom 309	31.4	70.4
Upstairs office corridor	31.1	72.0
Teachers lounge	32.2	70.5
Main office hall	29.9	73.6
Auditorium	30.6	72.4
Classroom 100	30.6	71.6
Classroom 101	31.0	71.6
Classroom 103	30.7	71.1
Classroom 105	31.6	70.8
Kitchen	31.0	74.3
Cafeteria	30.0	72.9
Main hall at entrance	29.9	72.7
Outdoors, main entrance	42.5	58.8

The temperature and relative humidity within the school class rooms and office space were within the EPA and ASHRAE standards.

4.1.3 Moisture in Building Materials

The following table summarizes moisture content readings collected.

Summary of Moisture Readings from Building Materials

Location	Building Component	Substrate Material	Moisture Content (%)
Room 307	Wall	Plaster	45.5
Room 303	Wall	Plaster	55.1
Room 101	Wall	Brick	69.5

Moisture readings were taken from the plaster wall and ceiling in room 307 and 305 where ECS observed water impacted plaster. ECS believes the moisture impacted plaster appears to be from a roof leak since no signs of pipe or HVAC leaks were observed at the time. ECS also collected moisture readings from the brick wall in room 101 were bubbling was observed. This should be further investigated as this area measured damp.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on our understanding of the purpose of the Mold and Moisture Assessment, the results of laboratory analysis, and our findings and observations, ECS presents the following recommendations.

5.1 Mold and Moisture

ECS recommends remediation be performed for all water and mold impacted materials within the surveyed areas as soon as reasonably possible. This includes all materials that have visible suspected mold and/or have been subjected to elevated moisture conditions for greater than 48 hours without proper drying efforts.

General

ECS recommends that a qualified mold remediation/drying contractor be retained to properly remove mold impacted materials. Remediation activities should be performed in general accordance with the guidelines described in EPA's March 2001 document "Mold Remediation in Schools and Commercial Buildings" and under the OSHA 2010 Guidelines for mold removal. Additional remedial guidance documents are also referenced in Section at the end of this report. Workers performing this work should wear proper personal protective equipment (PPE) including HEPA filtered respirators and disposable clothing (per OSHA standards for PPE).

ECS recommends that a building envelope study be performed for the building by a qualified engineer. Correction of building envelope and water intrusion issues should be performed prior to or concurrent with any remediation activities.

Setup

In general accordance with the EPA and OSHA guidelines, ECS recommends containment of the remediation areas using plastic barriers and tape to create negative pressure containment during removal of mold impacted materials. The contractor should seal HVAC vents in the work area(s), as well as all other penetrations and openings. A HEPA-filtered local exhaust ventilation (negative air machine) should be utilized within the work area directly adjacent to the area(s) being cleaned and should maintain negative pressure and HEPA filtration continuously inside the containment during remediation activities and prior to clearance sampling.

Scope of Work

All impacted drywall materials that have visible growth and/or have sustained water impacts should be removed in excess of 2 feet beyond the visible extent of mold or water stains where feasible. Further observation of the wall and ceiling systems may be necessary during remediation efforts to determine if additional materials will need to be removed. **As noted previously, any**

active moisture leaks into the building should be properly accessed and corrected prior to or concurrent with mold remediation activities. In addition, prior to performing any work the remediation contractor shall review all asbestos reports for the school building.

ECS makes the following recommendations concerning abatement of mold and/or moisture impacted materials in the building:

- Assessment of the building envelope by a qualified engineer or contractor to determine what repairs should be made to the exterior of the building in order to properly seal the building envelope and prevent further moisture intrusion. The envelope assessment should include an assessment of the integrity of the porticos and roof throughout the building as well;
- Moisture stained ceiling tiles were observed sporadically in areas throughout the hallways, offices, cafeteria/auditorium, and kitchen in areas where drop ceiling tiles are present. None of the areas tested were determined to have elevated moisture content. In general much of the staining observed on ceiling tiles was likely caused by old roof leaks, pipe condensation or leaking pipes. Have a qualified mold remediation contractor or qualified maintenance staff remove and replace all moisture impacted ceiling tiles. Perform any mold remediation as described in this protocol above this section if needed;
- A heavy build-up of dust and dirt was observed associated with the ceiling supply vents throughout the building. Perform localized cleaning of the HVAC system and review the cleaning and maintenance schedule for the units; Use a mold remediation contractor or qualified school maintenance staff. Perform any mold remediation as described in this protocol above this section; Note: Having dust accumulation and suspect mold at the diffusers is not uncommon and is a normal preventive maintenance measure to have maintenance staff monitor and correct/clean these areas.
- ECS also observed heavy mold growth on the fiberglass pipe insulation associated with the ceiling mounted fan coil units throughout the school. Have a qualified mold remediation contractor or qualified maintenance staff remove and replace all mold and moisture impacted fiberglass pipe insulation. Perform any mold remediation as described in this protocol above this section, as needed;
- ECS observed the plaster ceiling and wall above the window in room 303 with obvious water damage potentially from a roof leak; Moisture readings however were in the dry range. Repair the plaster wall and verify the area is dry and suspect mold is not present. Perform any mold remediation as described in this protocol, above this section, if needed;
- In a office space beside the media center (room unlabeled), ECS observed heavy damage to the plaster wall which was below a duct which went through the wall. Repair the plaster wall and verify the area is dry and suspect mold is not present. Perform any mold remediation as described in this protocol, above this section, if needed;
- Heavy plaster damaged was observed from a water intrusion event above the exterior window in room 30; Moisture readings taken from wall were in the dry range. Repair the plaster wall and verify the area is dry and suspect mold is not present. Perform any mold remediation as described in this protocol, above this section, if needed;
- In room 304 in the closet ECS observed suspect mold were the wall meets the ceiling in the closet. Further cleaning of the plaster wall is recommended; Verify the area is dry and suspect mold is not present. Perform any mold remediation as described in this protocol, above this section, if needed;

- ECS observed damaged plaster wall and ceiling within the auditorium in various locations. ECS believes the plaster damage may be caused by a roof leak. Repair the plaster wall and verify the area is dry and suspect mold is not present. Perform any mold remediation as described in this protocol, above this section, if needed;
- Water intrusion appeared to be occurring in the basement level in room 101. ECS observed the brick on the exterior wall to be impacted by a water intrusion event; Repair the brick wall and verify the area is dry and suspect mold is not present. Perform any mold remediation as described in this protocol, above this section, if needed;
- ECS observed areas of failed caulk and window glaze throughout the exterior of the building from normal age and weathering; Perform normal repairs.
- ECS also observed the window outside room 101 to have heavy staining on the concrete outside of the window; The window sill was also damaged possibly from water intrusion. Perform normal repairs.

Note: The purpose of this survey was to evaluate areas where moisture intrusion or suspected visible mold growth has occurred and provide findings and recommendations for remedial work efforts. Identification and recommendations for correction of sources of moisture should be performed by a qualified engineer. Because of the nature of the environment, complete elimination of all microbial organisms within a building cannot be expected and is not the goal of remediation. The goal of remediation is to restore the affected materials to at least the condition of unaffected materials. It is important to note that the reported mold levels are only reflective of conditions at the time of this test and that mold populations can vary over time, depending upon a number of conditions, including environmental factors (i.e., temperature and relative humidity). If significant mold growth reappears, or if the occupants experience prolonged allergic-type health complaints, they should seek further investigation of the problem.

6.0 LIMITATIONS

The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

This survey is not intended to represent an exhaustive research of every potential hazard or condition that may exist, nor does it claim to represent indoor conditions or events that arise after the survey. This report has been prepared in accordance with generally accepted environmental practices. Our conclusions and findings are based, in part, upon information provided to us by others and our site observations. We have not verified the completeness or accuracy of the information provided by others. The scope of services performed was limited to those requested by the Client and does not constitute a full microbial assessment of the site or a comprehensive moisture survey of the site. The data provided in this study is only indicative of conditions sampled at the immediate time of the study.

This report does not warrant against future operations or conditions, nor does it warrant against extant, or future, conditions of a type or at a location not investigated. Because of the nature of this type of work and the difficulties involved in conducting remediation work, ECS cannot guarantee that the methods or recommendations described in this report will eliminate all potential indoor air

quality issues. Since performance of the remediation work is also beyond ECS scope of services, ECS also cannot be held responsible for the execution of the remediation work. The reported microbial levels are only reflective of conditions at the time of this test and that microbial populations can vary over time, depending upon a number of conditions, including environmental factors (i.e., temperature and relative humidity). The work performed in conjunction with this assessment and the data developed is intended as a description of available information at the dates and locations given.

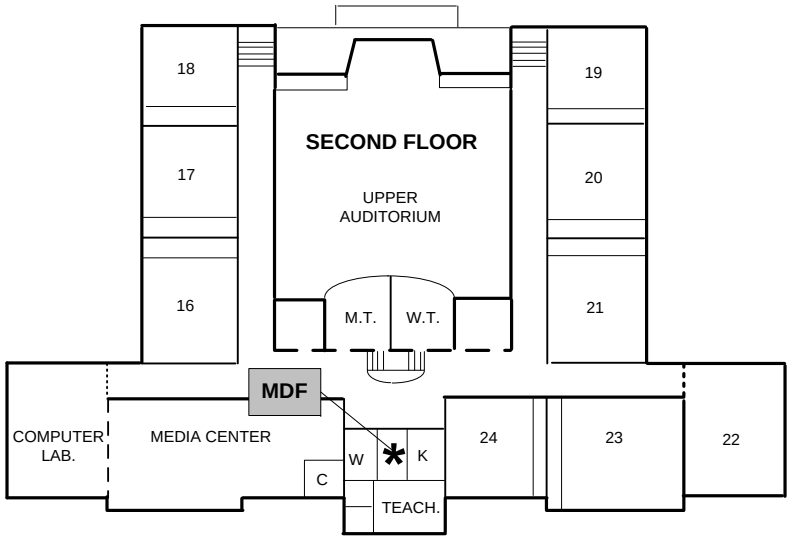
The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of the client. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and the client.

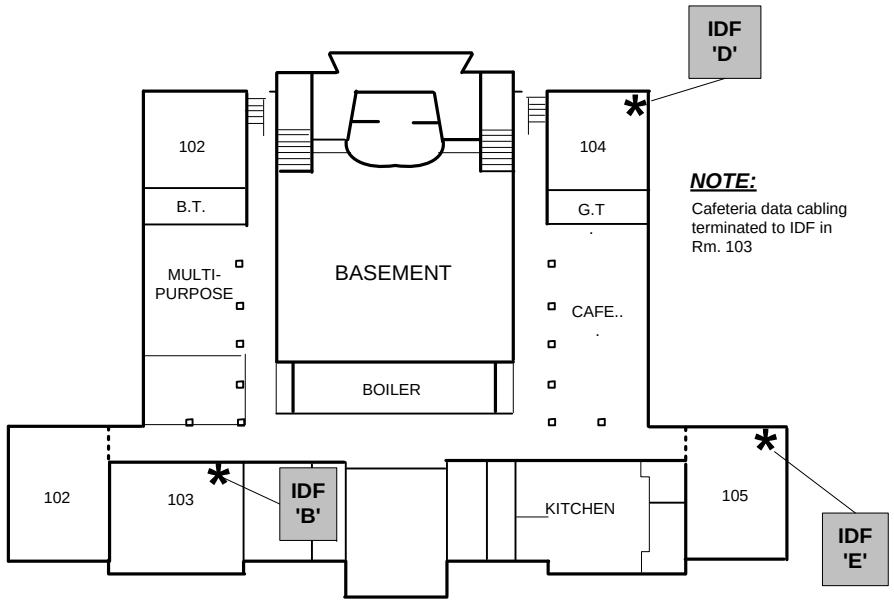
Our recommendations are in part based on federal, state, and local regulations and guidelines. ECS does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies, any conditions at the site that may present a potential danger to public health, safety, or the environment. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.

Appendix I: School Diagram

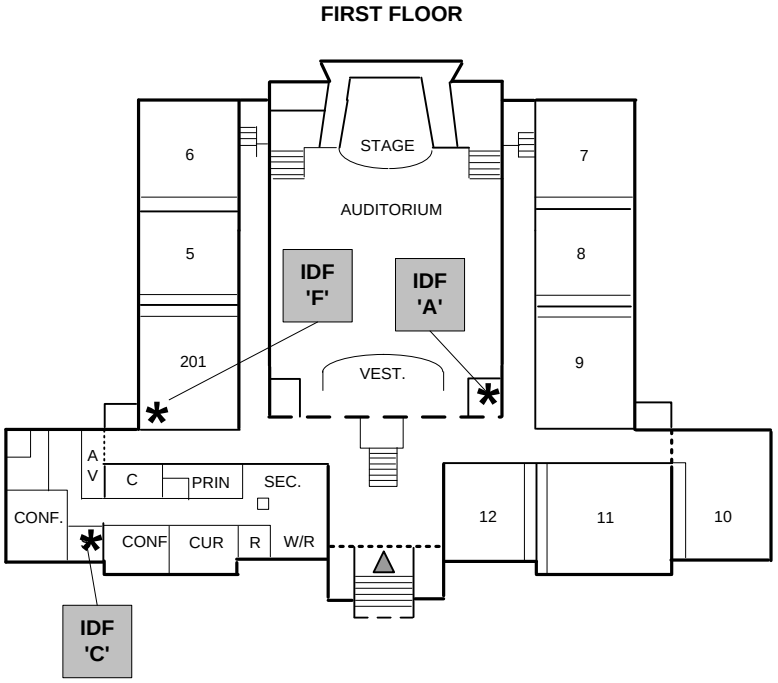
BELLEVUE ELEMENTARY

RICHMOND PUBLIC SCHOOLS
DATA SYSTEM CONNECTIONS AND FLOOR PLAN





NOTE:
Cafeteria data cabling terminated to IDF in Rm. 103



Prepared: Aug. 30 2000
Updated: August 17, 2009

File Name: BELLEVUE ELEM. DATA SYS. LOC. RE-DRAW 08172009.vsd

Appendix II: Mold Laboratory Report

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-11-02443

Received Date: 11/16/2023
Analyzed Date: 11/27/2023, 11/28/2023
Reported Date: 11/28/2023

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02443-001		23-11-02443-002		23-11-02443-003		23-11-02443-004		23-11-02443-005	
Client Sample ID :	A1		A2		A3		A4		A5	
Date Collected :	11/15/2023		11/15/2023		11/15/2023		11/15/2023		11/15/2023	
Collection Location :	OUTDOORS MAIN ENTRANCE		201		202		203		204	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	297	2000	23	150	30	200	28	190	8	53
Penicillium/Aspergillus group spores	328	2200	15	100	20	130	14	93	15	100
Alternaria spores	3	20								
Aureobasidium spores	7	47	1	6.7	1	6.7	4	27		
Drechslera/Bipolaris group spores	2	13								
Arthrinium spores	1	6.7								
Curvularia spores	4	27			1	6.7				
Stachybotrys spores	4	27	1	6.7			2	13		
Pithomyces spores	3	20	1	6.7	1	6.7				
Epicoccum spores	3	20					1	6.7		
Pestalotia spores	3	20					1	6.7	1	6.7
Cercospora spores	1	6.7								
Nigrospora spores	2	13			1	6.7				
Fusarium spores	1	6.7								
smuts, Periconia, myxomycetes	62	410	5	33	5	33	4	27		
Bispora spores	1	6.7			2	13				

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-11-02443

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Lab # :	23-11-02443-001		23-11-02443-002		23-11-02443-003		23-11-02443-004		23-11-02443-005	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Trichocladium spores	1	6.7								
TOTAL SPORES(Spores/m3)		4800		310		410		360		160
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

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Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
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Lab # :	23-11-02443-006		23-11-02443-007		23-11-02443-008		23-11-02443-009		23-11-02443-010	
Client Sample ID :	A6		A7		A8		A9		A10	
Date Collected :	11/15/2023		11/15/2023		11/15/2023		11/15/2023		11/15/2023	
Collection Location :	205		206		207		208		209	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	28	190	5	33	7	47	8	53	9	60
Penicillium/Aspergillus group spores	34	230	8	53	1	6.7	2	13	6	40
Aureobasidium spores					1	6.7			2	13
smuts, Periconia, myxomycetes	4	27			2	13	1	6.7	1	6.7
TOTAL SPORES(Spores/m3)		440		87		73		73		120
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-11-02443

Received Date: 11/16/2023
Analyzed Date: 11/27/2023, 11/28/2023
Reported Date: 11/28/2023

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02443-011		23-11-02443-012		23-11-02443-013					
Client Sample ID :	A11		A12		A13					
Date Collected :	11/15/2023		11/15/2023		11/15/2023					
Collection Location :	MEDIA CENTER WEST SIDE		MEDIA CENTER EAST SIDE		301					
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell					
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7					
Volume (L) :	150		150		150					
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	16	110	5	33	13	87				
Penicillium/Aspergillus group spores	5	33	8	53	14	93				
Aureobasidium spores	1	6.7	2	13						
Curvularia spores			1	6.7						
Stachybotrys spores			1	6.7	1	6.7				
smuts, Periconia, myxomycetes			2	13	2	13				
Bispora spores	1	6.7								
TOTAL SPORES(Spores/m3)		150		130		200				
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher					

Sample Narratives:

(Sample 001) M03: Substantial amount of particulate observed, counts may be underestimated.

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-11-02443

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Method: Non-Culturable Spore Trap Examination

Reviewed By Authorized Signatory: Tasha Eaddy

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, volume, etc., was provided by the client. The Client is hereby notified that due to the subjective nature of fungal analysis and the growth process of fungal infestation, laboratory samples can and do change over time relative to the originally sampled material. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

ENVIRONMENTAL HAZARDS SERVICES, LLC

Mold Chain of Custody Form

Company Name	ECS Mid-Atlantic	Account #	
Company Address	2119 North Hamilton Street	City/State/Zip	Richmond/VA/23230
Phone	804-353-6333	Email	rcurran@ecslimited.com
Project / Testing Address	Bellevue Elementary, 2301 East Grace St., Richmond, Virginia		
PO Number	47:14153-K	Collected By	Rob Curran
Collection Date & Time	11/15/23	Outside Air Temp	Indoor Air Temp

Was there any precipitation (rain, sleet or snow) 2 hours of less before taking the samples? ☐ Yes ☑ No

Turn-Around Time: ◉ 5 Day ○ 3 Day ○ 2 Day ○ 1 Day ○ Same Day / Weekend - Must Call Ahead

SAMPLE TYPE CODES

AIR/ NON VIABLE		SPORE TRAP		SWAB SAMPLE SURFACE	
Bulk	B	Air-O-Cell	AOC	Non Porous	NP
Swab	S	Cyclex D	C	Semi Porous	SP
Bio-Tape	T	BioSiS	B	Porous	P
Wall Check	W	Micro 5	M5		

LAB NUMBER	Client Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total Liter)	Swab Samples: Surface Type (NP/SP)	Swab Samples: Area of Mold (Square Feet)	Qualitative Particulate Analysis Additional $10.00 per sample	Comments
1	A1	Outdoors, main entrance	B	AOC	150				5688705
2	A2	201	B	AOC	150				5688742
3	A3	202	B	AOC	150				5688759
4	A4	203	B	AOC	150				5688723
5	A5	204	B	AOC	150				5688731
6	A6	205	B	AOC	150				5688960
7	A7	206	B	AOC	150				5688978
8	A8	207	B	AOC	150				5688949
9	A9	208	B	AOC	150				5688912
10	A10	209	B	AOC	150				5689023
11	A11	Media center, west side	B	AOC	150				5688950
12	A12	Media center, east side	B	AOC	150				5689026
13	A13	301	B	AOC	150				5689005

Released By:	Robert Curran	Date:	11/16/23	Time:	
Signature:	Robert Curran				

LAB USE ONLY – BELOW THIS LINE

Received By: H Humphreys

Signature:

Date: 11, 16, 23 Time: 3 35 ☐ AM ☑ PM

☐ Portal Contact Added

23-11-02443

Due Date:
11/27/2023
(Monday)
ER

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 23-11-02444

Received Date: 11/16/2023
Analyzed Date: 11/28/2023
Reported Date: 11/28/2023

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Project/Test Address: Bellevue Elementary; 2301 East Grace St.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02444-001		23-11-02444-002		23-11-02444-003		23-11-02444-004		23-11-02444-005	
Client Sample ID :	A14		A15		A16		A17		A18	
Date Collected :	11/15/2023		11/15/2023		11/15/2023		11/15/2023		11/15/2023	
Collection Location :	302		303		304		OUTDOORS MAIN ENTRACE		305	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	2	13	10	67	8	53	144	960	9	60
Penicillium/Aspergillus group spores	10	67	19	130	4	27	42	280	4	27
Aureobasidium spores							5	33	2	13
Drechslera/Bipolaris group spores							3	20		
Arthrinium spores							1	6.7		
Curvularia spores							1	6.7		
Stachybotrys spores			1	6.7			2	13	1	6.7
Pithomyces spores							1	6.7		
Epicoccum spores	1	6.7					6	40		
Nigrospora spores			1	6.7						
Memnoniella spores							1	6.7		
smuts, Periconia, myxomycetes	3	20	2	13	1	6.7	80	530	2	13
TOTAL SPORES(Spores/m3)		110		220		87		1900		120
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 23-11-02444

Received Date: 11/16/2023
Analyzed Date: 11/28/2023
Reported Date: 11/28/2023

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Project/Test Address: Bellevue Elementary; 2301 East Grace St.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02444-006		23-11-02444-007		23-11-02444-008		23-11-02444-009		23-11-02444-010	
Client Sample ID :	A19		A20		A21		A22		A23	
Date Collected :	11/15/2023		11/15/2023		11/15/2023		11/15/2023		11/15/2023	
Collection Location :	306		307		308		309		UPSTAIRS OFFICE BY MEDIA CENTER	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	5	33	4	27	5	33	27	180	13	87
Penicillium/Aspergillus group spores	7	47	6	40	6	40	15	100	16	110
Aureobasidium spores					31	210	2	13	1	6.7
Stachybotrys spores			1	6.7						
Epicoccum spores							1	6.7		
Pestalotia spores									1	6.7
Fusarium spores	1	6.7								
smuts, Periconia, myxomycetes	1	6.7	3	20			3	20	3	20
Bispora spores									1	6.7
TOTAL SPORES(Spores/m3)		93		93		280		320		230
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-11-02444

Received Date: 11/16/2023
Analyzed Date: 11/28/2023
Reported Date: 11/28/2023

Project/Test Address: Bellevue Elementary; 2301 East Grace St.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02444-011		23-11-02444-012		23-11-02444-013					
Client Sample ID :	A24		A25		A26					
Date Collected :	11/15/2023		11/15/2023		11/15/2023					
Collection Location :	TEACHERS LOUNGE		MAIN OFFICE HALL		AUDITORIUM					
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell					
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7					
Volume (L) :	150		150		150					
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	2	13	9	60	3	20				
Penicillium/Aspergillus group spores	2	13	3	20						
Aureobasidium spores			1	6.7						
Chaetomium spores					1	6.7				
TOTAL SPORES(Spores/m3)		27		87		27				
Analyst:	Kitana Usher		Felicia Butler		Felicia Butler					

Sample Narratives:

(Sample 004) M03: Substantial amount of particulate observed, counts may be underestimated.

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-11-02444

Project/Test Address: Bellevue Elementary; 2301 East Grace St.; Richmond, Virgina

Method: Non-Culturable Spore Trap Examination

Reviewed By Authorized Signatory: Tasha Eaddy

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, volume, etc., was provided by the client. The Client is hereby notified that due to the subjective nature of fungal analysis and the growth process of fungal infestation, laboratory samples can and do change over time relative to the originally sampled material. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

ENVIRONMENTAL HAZARDS SERVICES, LLC

Mold Chain of Custody Form

Company Name	ECS Mid-Atlantic	Account #	
Company Address	2119 North Hamilton Street	City/State/Zip	Richmond/VA/23230
Phone	804-353-6333	Email	rcurran@ecslimited.com
Project / Testing Address	Bellevue Elementary, 2301 East Grace St., Richmond, Virginia		
PO Number	47:14153-K	Collected By	Rob Curran
Collection Date & Time	11/15/23	Outside Air Temp	Indoor Air Temp
Was there any precipitation (rain, sleet or snow) 2 hours of less before taking the samples?	☐ Yes	☑ No	

Turn-Around Time: ◉ 5 Day ○ 3 Day ○ 2 Day ○ 1 Day ○ Same Day / Weekend - Must Call Ahead

SAMPLE TYPE CODES

AIR/NON VIABLE		SPORE TRAP		SWAB SAMPLE SURFACE	
Bulk	B	Air-O-Cell	AOC	Non Porous	NP
Swab	S	Cyotex D	C	Semi Porous	SP
Bio-Tape	T	BioSiS	B	Porous	P
Wall Check	W	Micro 5	M5		

LAB NUMBER	Client Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total Liter)	Swab Samples: Surface Type (NP/SP)	Swab Samples: Area of Mold (Square Feet)	Qualitative Particulate Analysis Additional $10.00 per sample	Comments
1	A14	302	B	AOC	150				5688990
2	A15	303	B	AOC	150				5688915
3	A16	304	B	AOC	150				5688995
4	A17	Outdoors, main entrance	B	AOC	150				5688917
5	A18	305	B	AOC	150				5688947
6	A19	306	B	AOC	150				5689031
7	A20	307	B	AOC	150				5688911
8	A21	308	B	AOC	150				5689032
9	A22	309	B	AOC	150				5688953
10	A23	Upstairs office by media center	B	AOC	150				5688908
11	A24	Teachers lounge	B	AOC	150				5688979
12	A25	Main office, hall	B	AOC	150				5688940
13	A26	Auditorium	B	AOC	150				5688982

Released By:	Robert Curran	Date:	11/16/23	Time:	
Signature:	Robert Curran				

LAB USE ONLY – BELOW THIS LINE

Received By: HHumphrey

Signature:

Date: 11,16,23 Time: 3:41 ☐ AM ☑ PM

☐ Portal Contact Added

23-11-02444

Due Date:
11/27/2023
(Monday)
ER

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-11-02442

Received Date: 11/16/2023
Analyzed Date: 11/27/2023, 11/22/2023
Reported Date: 11/27/2023

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02442-001		23-11-02442-002		23-11-02442-003		23-11-02442-004		23-11-02442-005	
Client Sample ID :	A27		A28		A29		A30		A31	
Date Collected :	11/15/2023		11/15/2023		11/15/2023		11/15/2023		11/15/2023	
Collection Location :	100		101		103		105		KITCHEN	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	13	87	11	73	7	47	7	47	12	80
Penicillium/Aspergillus group spores	6	40	27	180	6	40	26	170	34	230
Aureobasidium spores			1	6.7						
Drechslera/Bipolaris group spores	1	6.7								
Curvularia spores									1	6.7
Torula spores							1	6.7		
Pestalotia spores			2	13						
smuts, Periconia, myxomycetes			1	6.7	2	13	2	13		
TOTAL SPORES(Spores/m3)		130		280		100		240		310
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-11-02442

Received Date: 11/16/2023
Analyzed Date: 11/27/2023, 11/22/2023
Reported Date: 11/27/2023

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02442-006		23-11-02442-007		23-11-02442-008					
Client Sample ID :	A32		A33		A34					
Date Collected :	11/15/2023		11/15/2023		11/15/2023					
Collection Location :	CAFEERTERIA		MAIN ENTRY HALL UNDER STAIRS		OUTDOORS MAIN ENTRACE					
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell					
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7					
Volume (L) :	150		150		150					
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	13	87	15	100	156	1000				
Penicillium/Aspergillus group spores	14	93	16	110	127	850				
Alternaria spores					2	13				
Aureobasidium spores			1	6.7	2	13				
Drechslera/Bipolaris group spores					1	6.7				
Arthrinium spores					2	13				
Curvularia spores					1	6.7				
Stachybotrys spores					2	13				
Torula spores					1	6.7				
Pithomyces spores					1	6.7				
Epicoccum spores	3	20			5	33				
Pestalotia spores					1	6.7				
smuts, Periconia, myxomycetes					60	400				
Bispora spores					1	6.7				
TOTAL SPORES(Spores/m3)		200		210		2400				
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher					

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-11-02442

Project/Test Address: Bellevue Elementary; 2301 East Grace St; Richmond, Virginia

Sample Narratives:

(Sample 008) M02: Large amounts of particulate observed.

Method: Non-Culturable Spore Trap Examination

Reviewed By Authorized Signatory: Melissa Kanode

Melissa Kanode
QA/QC Clerk

ENVIRONMENTAL HAZARDS SERVICES, LLC

Mold Chain of Custody Form

Company Name	ECS Mid-Atlantic	Account #	
Company Address	2119 North Hamilton Street	City/State/Zip	Richmond/VA/23230
Phone	804-353-6333	Email	rcurran@ecslimited.com
Project / Testing Address	Bellevue Elementary, 2301 East Grace St., Richmond, Virginia		
PO Number	47:14153-K	Collected By	Rob Curran
Collection Date & Time	11/15/23	Outside Air Temp	Indoor Air Temp
Was there any precipitation (rain, sleet or snow) 2 hours of less before taking the samples?	☐ Yes	☑ No	

Turn-Around Time: ◉ 5 Day ○ 3 Day ○ 2 Day ○ 1 Day ○ Same Day / Weekend - Must Call Ahead

SAMPLE TYPE CODES

AIR/ NON VIABLE		SPORE TRAP		SWAB SAMPLE SURFACE	
Bulk	B	Air-O-Cell	AOC	Non Porous	NP
Swab	S	Cyclex D	C	Semi Porous	SP
Bio-Tape	T	BioSlS	B	Porous	P
Wall Check	W	Micro 5	M5		

LAB NUMBER	Client Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total Liter)	Swab Samples: Surface Type (NP/SP)	Swab Samples: Area of Mold (Square Feet)	Qualitative Particulate Analysis Additional $10.00 per sample	Comments
1	A27	100	B	AOC	150				5688923
2	A28	101	B	AOC	150				5689022
3	A29	103	B	AOC	150				5688939
4	A30	105	B	AOC	150				5688901
5	A31	Kitchen	B	AOC	150				5689012
6	A32	Cafeteria	B	AOC	150				5688955
7	A33	Main entry hall, under stairs	B	AOC	150				5688903
8	A34	Outdoors, main entrance	B	AOC	150				5689004
9									
10									
11									
12									
13									

Released By:	Robert Curran	Date:	11/16/23	Time:	3:21 pm
Signature:	Robert Curran				

LAB USE ONLY – BELOW THIS LINE

Received By: HHumphrey

Signature:

Date: 11/16/23 Time: 3 32 ☐ AM ☑ PM

☐ Portal Contact Added

23-11-02442

Due Date:
11/27/2023
(Monday)
ER

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

Appendix III: Site Photographs

1 - General view of ceiling tile with water intrusion.

2 - General view of ceiling mounted fan coil unit pipes with visible mold.

3 - General view of ceiling mounted fan coil unit pipes with visible mold.

4 - General view of ceiling mounted fan coil unit which contains heavy dust and suspect mold.

5 - View of plaster ceiling showing water damage from possible roof leaks in room 303.

6 - View of damaged plaster wall in the office space near the media center on the 3rd floor.

7 - View of damaged plaster from water intrusion in room 307

8 - Room 304 closet where it appears cleaning was conducted. Suspect mold was observed on the wall however.

9 - Damaged plaster wall and ceiling from a possible roof leak in the Auditorium.

10 - Brick wall where ECS observed moisture intrusion / damage on the lower half of wall in room 101.

11 - Vent grate near main entrance with heavy dust observed.

12 - View of the window outside room 101 where heavy staining was observed. The windowsill appeared to be damaged from water intrusion.

Appendix IV: Mold Reference and Guidance Documents

MOLD REFERENCE DOCUMENTS AND GUIDANCE

Standards and Publications

Mold Remediation in Schools and Commercial Buildings, EPA, EPA 402-K-01-001, September 2008

A Brief Guide to Mold in the Workplace, Occupational Safety Health Administration (OSHA), SHIB 03-10-10, updated 11-08-13

ANSI/IICRC S520-2015 Standard and Reference Guide for Professional Mold Remediation, Institute of Inspection, Cleaning, and Restoration Certification, Third Edition

ANSI/IICRC S500-2021 Standard and Reference Guide for Professional Water Damage Restoration, Institute of Inspection, Cleaning, and Restoration Certification, Fifth Edition

Bioaerosols: Assessment and Control, American Conference of Governmental Industrial Hygienists, 1999.

Building Air Quality: A Guide for Building Owners and Facility Managers, National Institute for Occupational Safety and Health (NIOSH) and Environmental Protection Agency (EPA) EPA 402F-91-102, December 1991

Mold Moisture and Your Home, EPA, EPA-402-K-02-003, September 2012

WHO Guidelines for Indoor Air Quality: Dampness and Mould, World Health Organization (WHO), 2009

Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health and Mental Hygiene, November 2008.

Damp Buildings, Human Health, and HVAC Design, Report of the ASHRAE Multidisciplinary Task Group: Damp Buildings, American Society of Heating, Refrigerating, and Air Conditioning Engineers, 2020

Websites

EPA – Mold Resources, https://www.epa.gov/mold

Centers for Disease Control and Prevention (CDC), https://www.cdc.gov/mold/faqs.htm

Department of Energy and the Environment (DOEE), Mold Assessment and Remediation Licensure Regulations https://doee.dc.gov/service/mold-professional-licensing

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