MOLD AND MOISTURE ASSESSMENT REPORT

FRANCES W. MCCLENNEY ELEMENTARY

3817 CHAMBERLAYNE AVENUE
RICHMOND, VIRGINIA 23227

ECS PROJECT NO. 47:14153-L

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-L

Reference: Mold and Moisture Assessment, Frances W. McClenney Elementary, 3817 Chamberlayne Avenue, 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 Frances W. McClenney Elementary located at 3817 Chamberlayne Avenue 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
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1.0 PROJECT DESCRIPTION

The building located at 3817 Chamberlayne Avenue in Richmond, Virginia is a school building known as the Frances W. McClenney Elementary. The building contains approximately 46,029 and was reportedly originally constructed in 1913.

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 to 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.

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 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.

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.

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.

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 RPSFS.

4.1 Mold and Moisture

Main School Building

- 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 from 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 within room 218 with heavy water staining and suspect mold observed. ECS also observed suspect mold on the plaster wall within the closet of room 218. Moisture readings taken in the closet were in the dry range;
- In room 217, ECS observed the ceiling with damaged plaster and water staining possibly from a roof leak. Moisture readings were not able to be taken at the time of the survey due to accessibility;
- ECS observed in room 211 damaged plaster from an apparent water leak where the pipe to the ceiling fan coil unit was located. ECS notes the plaster was heavily damaged in the area observed. Moisture readings were not able to be taken at the time of the survey due to accessibility. ECS also observed plaster falling from the ceiling near the perimeter wall which was water damaged;
- In the teachers lounge, damaged plaster was observed on the bulk head in the center of the room. The bulk head appears to be cracking and pulling away from the ceiling. ECS believes the fan coil unit pipes are located within this bulk head which may be contributing to the damage plaster from a pipe leak or excessive condensation. Elevated air samples was reported in this area which are most likely related to the apparent leak within the bulk head;
- In room 222, ECS observed the ceiling with damaged plaster and water staining possibly from a roof leak. Moisture readings were not able to be taken at the time of the survey due to accessibility;
- ECS observed similar damaged plaster on the bulk head in room 220. The damage does not appear to be as extensive as what ECS observed in the teachers lounge, however, further investigation is recommended;
- Damaged plaster wall was observed in the perimeter walls in room B8. Moisture readings were in the - at risk to wet range near the bathroom of the room. Based on the damaged plaster, ECS believes the moisture intrusion is occurring from the exterior building envelop failure.

Exterior Envelope

- ECS observed areas of failed caulk throughout the exterior of the building from normal age and weathering. However, ECS was unable to test this material due to the metal window gates blocking the window from being accessedand tested for asbestos.

4.1.1 Spore-Trap Air Samples

Fungal spore-trap air samples were collected from classrooms and functionally distinct spaces in the school where students and faculty would be expected to spend the most time. The following table summarizes the results of sample analysis reported in spore counts per cubic meter of air.

Spore-Trap Sample Results

Sample Number	Sample Location	Total Fungal Spore Concentration (count/cubic meter)
A1	Outdoors, front entry	910
A2	101	13
A3	102	120
A4	103	6.7
A5	104/nurses office	60
A6	Main office	20
A7	106	60
A8	107/media center	6.7
A9	108	13
A10	109	No relevant fungal spores observed
A11	110	No relevant fungal spores observed
A12	B1	13
A13	B2	20
A14	B3	87
A15	B4	170
A16	B5	130
A17	B6	6.7
A18	Outdoors, front entry	1900
A19	B7	60
A20	B8	27
A21	Cafeteria	47
A22	Auditorium	230

Sample Number	Sample Location	Total Fungal Spore Concentration (count/cubic meter)
A23	Upper hall behind stage	100
A24	Offices above auditorium lobby	40
A25	Kitchen	27
A26	211	6.7
A27	212	No fungal spores observed
A28	213	47
A29	214	No fungal spores observed
A30	215	33
A31	217	13
A32	218	No fungal spores observed
A33	219	13
A34	220	No fungal spores observed
A35	221	No fungal spores observed
A36	222	No fungal spores observed
A37	Teachers lounge	1100
A38	Outdoors, north side entrance	1000

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 with the exception of the teachers lounge which had elevations of *Penicillium/Aspergillus sp*. Based on our observations these elevations appear related to a bulk head which appears to be water damaged. ECS believes the ceiling mounted fan coil units pipes are located in this area which may have leak or condensation leaks.

There are currently no accepted regulatory standards or guidelines with respect to acceptable fungal levels inside buildings. 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, front entry	55.0	70.6
101	48.4	76.2
102	48.4	76.2
103	47.7	76.3
104/nurses office	44.9	76.6
Main office	46.7	75.7
106	44.6	77.8
107/media center	45.3	76.9
108	45.7	76.6
109	45.1	76.9
110	46.1	76.9
B1	46.7	75.7
B2	46.8	75.8

Location	Relative Humidity (%)	Temperature (°F)
B3	46.4	76.1
B4	46.7	76.6
B5	46.4	75.7
B6	47.1	75.4
Outdoors, front entry	53.5	71.3
B7	48.4	74.6
B8	49.2	74.2
Cafeteria	49.8	74.6
Auditorium	50.1	73.3
Upper hall behind stage	50.7	72.1
Offices above auditorium lobby	49.0	73.1
Kitchen	50.8	73.1
211	48.2	75.8
212	47.7	76.2
213	46.4	76.4
214	45.6	76.7
215	46.8	76.2
217	48.4	75.1
218	46.4	76.0
219	46.5	76.1
220	45.9	76.2
221	45.2	77.0
222	45.6	76.7
Teachers lounge	45.7	75.8
Outdoors, north side entrance	60.7	65.7

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 218	Wall	Plaster	54.4
Teachers Lounge	Ceiling	Plaster	65.5
Room B8	Wall	Plaster	91.1

Moisture readings were taken from the plaster wall and ceiling in room 218, teachers lounge, and room B8 where ECS observed water impacted plaster. The plaster wall in room 218 which had moisture impacted appears to be from a roof leak since no signs of pipe from the fan coil unit were observed at the time. The plaster ceiling (bulk head) in the teachers lounge where ECS observed damage appears to be from the pipes associated with the ceiling mounted fan coil units. This area tested dry. In room B8 ECS observed heavy damage on the plaster walls (perimeter walls) and moisture readings were at risk to wet. ECS believes this is from the exterior building envelope failing to keep moisture out of the building. This should be further investigated.

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;
- 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 if needed; Note: Having dust accumulation and suspect mold at the diffusers is not uncommon and is a normal preventive maintenance measure to monitor and correct.
- 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 within room 218 with heavy water staining and suspect mold observed. ECS also observed suspect mold on the plaster wall within the closet of room 218. Moisture readings taken in the closet 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; Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.

- In room 217, ECS observed the ceiling with damaged plaster and water staining possibly from a roof leak. Moisture readings were not able to be taken at the time of the survey. Repair the plaster wall and ceiling 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; Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.
- ECS observed in room 211 damaged plaster from water intrusion where the pipe to the ceiling fan coil unit was located. ECS notes the plaster was heavily damaged in the area observed. Moisture readings were not able to be taken at the time of the survey. ECS also observed plaster falling from the ceiling near the perimeter wall which was water damaged. Repair the plaster ceiling 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; Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.
- In the teachers lounge, damaged plaster was observed on the bulk head in the center of the room. The bulk head appears to be cracking and pulling away from the ceiling. ECS believes the fan coil unit pipes are located within this bulk head which may be contributing to the damage plaster from a pipe leak or excessive condensation. Elevated air samples was reported in this area which may be tied to the bulk head. Repair the plaster on the bulk head 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; Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.
- In room 222, ECS observed the ceiling with damaged plaster and water staining possibly from a roof leak. Moisture readings were not able to be taken at the time of the survey. Repair the plaster ceiling 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; Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.
- ECS observed similar damaged plaster on the bulk head in room 220. The damage does not appear to be as extensive as what ECS observed in the teachers lounge, however, further investigation is recommended. Repair the plaster on the bulk head 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; Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.
- Damaged plaster wall was observed in the perimeter walls in room B8. Moisture readings were in the at risk to wet range near the bathroom of the room. Based on the location of the damaged plaster, ECS believes the moisture intrusion is occurring from the exterior building envelop failure. Correct the water intrusion. 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. ECS also notes further investigation is needed on the exterior portion of this room. Note: The plaster has trace asbestos and will need to be addressed by an asbestos contractor. Reference the asbestos section further in this section of the report.

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.

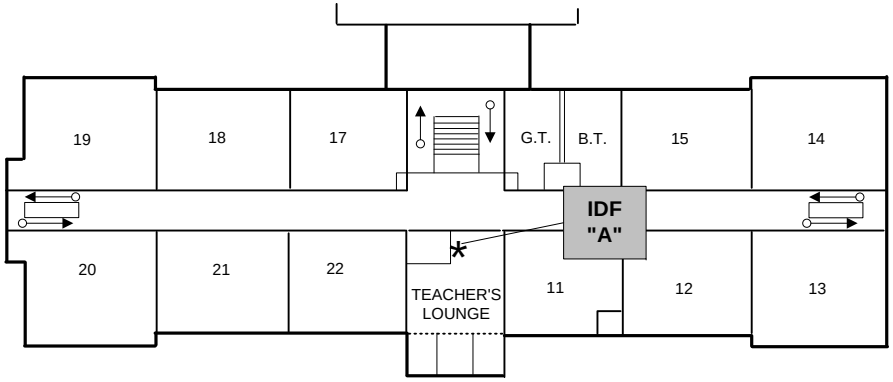
The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and 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

RICHMOND PUBLIC SCHOOLS
DATA SYSTEMS CONNECTIONS LAYOUT AND FLOOR PLAN

GINTER PARK ELEMENTARY



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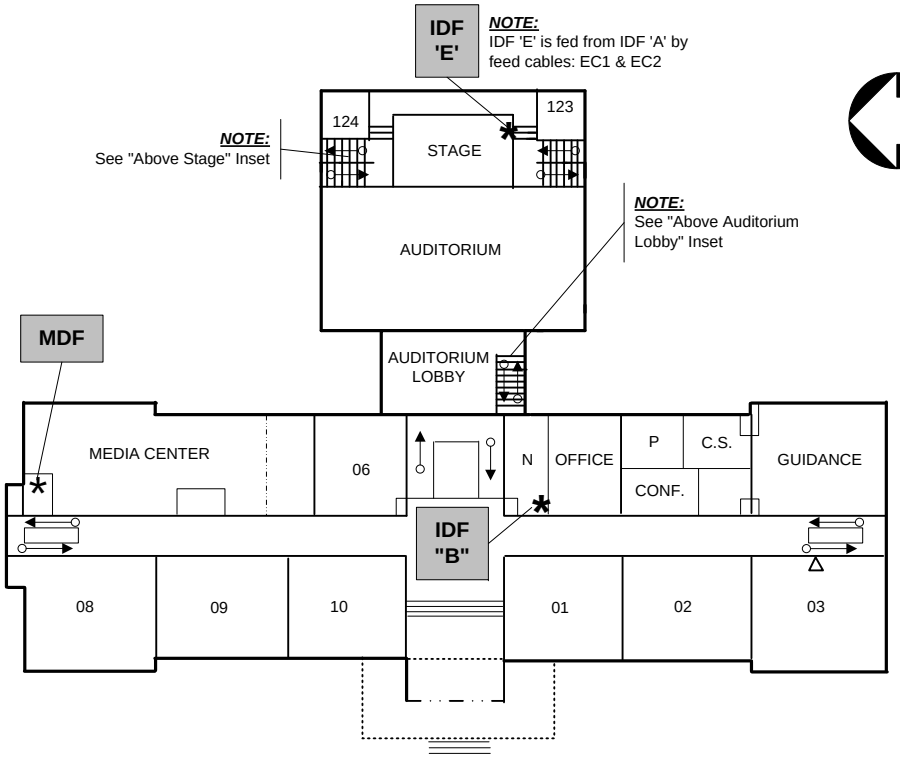

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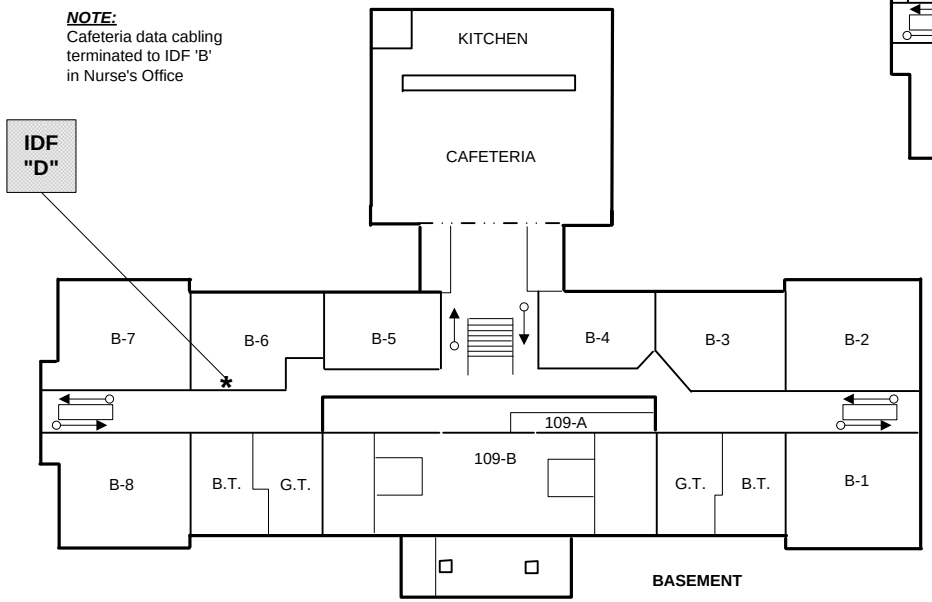

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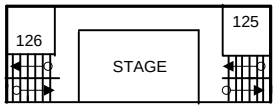
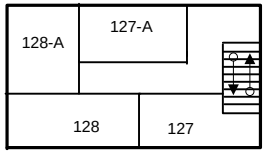


ABOVE STAGE



ABOVE AUDITORIUM LOBBY

Prepared: Dec. 11, 1997

Redrawn: Feb. 8, 1998 Original copy lost

Updated: August 19, 2008

File Name GINTER PARK ELEM. DATA SYS. RE-DRAW 08192008.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: 23-11-02885

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; Richmond, Virgina

Client Number:
200625

Laboratory Results

Fax Number:
804-353-9478

Lab # :	23-11-02885-001		23-11-02885-002		23-11-02885-003		23-11-02885-004		23-11-02885-005	
Client Sample ID :	A1		A2		A3		A4		A5	
Date Collected :	11/17/2023		11/17/2023		11/17/2023		11/17/2023		11/17/2023	
Collection Location :	OUTDOORS FRONT ENTRY		101		102		103		104 NURSES OFFICE	
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	70	470	1	6.7	2	13			6	40
Penicillium/Aspergillus group spores	7	47			1	6.7				
Alternaria spores	3	20								
Aureobasidium spores	2	13								
Drechslera/Bipolaris group spores	1	6.7								
Pithomyces spores	1	6.7								
Epicoccum spores	1	6.7								
smuts, Periconia, myxomycetes	50	330	1	6.7	14	93			3	20
Bispora spores	1	6.7			1	6.7	1	6.7		
TOTAL SPORES(Spores/m3)		**910**		**13**		**120**		**6.7**		**60**
Analyst:	Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler	

Non-Viable Spore Trap Analysis Report

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

Telephone: 800.347.4010

Report Number: 23-11-02885

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

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

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02885-006		23-11-02885-007		23-11-02885-008		23-11-02885-009		23-11-02885-010	
Client Sample ID :	A6		A7		A8		A9		A10	
Date Collected :	11/17/2023		11/17/2023		11/17/2023		11/17/2023		11/17/2023	
Collection Location :	MAIN OFFICE		106		107 MEDIA CENTER		108		109	
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	1	6.7	3	20	1	6.7				
Drechslera/Bipolaris group spores	1	6.7								
smuts, Periconia, myxomycetes	1	6.7	5	33			1	6.7		
Bispora spores			1	6.7			1	6.7		
No relevant fungal spores observed										See Notes
TOTAL SPORES(Spores/m3)		**20**		**60**		**6.7**		**13**		
Analyst:	Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler	

Notes (Sample 010): No relevant fungal spores observed

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: 23-11-02885

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02885-011		23-11-02885-012		23-11-02885-013					
Client Sample ID :	A11		A12		A13					
Date Collected :	11/17/2023		11/17/2023		11/17/2023					
Collection Location :	110		B1		B2					
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	1	6.7				
smuts, Periconia, myxomycetes					2	13				
No fungal spores observed		See Notes								
TOTAL SPORES(Spores/m3)				**13**		**20**				
Analyst:	Felicia Butler		Felicia Butler		Felicia Butler					

Notes (Sample 011): No fungal spores observed

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:** 23-11-02885

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; 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 Address: Ginter Park Elementary School, 3817 Chamberlayne Ave. Richmond, Virginia

PO Number: 47:14153-L | Collected By: Rob Curran

Collected Date & Time: 11/17/23 | Outside Air Temp: | Indoor Air Temp:

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

Turnaround Time: (●) 5 Day ( ) 3 Day ( ) 2 Day ( ) 1 Day ( ) Same Day / Weekend - Must Call Ahead

Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total L)	Surface Samples: Surface Type	Area of Swab	Comments
A1	Outdoors, front entry	B	AOC	150			3661-6019
A2	101	B	AOC	150			3661-60[illegible]
A3	102	B	AOC	150			3661-6[illegible]
A4	103	B	AOC	150			3661-6083
A5	104/nurses office	B	AOC	150			3661-6093
A6	[illegible] office	B	AOC	150			3661-6030
A7	106	B	AOC	150			3661-6106
A8	107/media center	B	AOC	150			3661-6053
A9	108	B	AOC	150			3661-6070
A10	109	B	AOC	150			3661-6047
A11	110	B	AOC	150			3661-6036
A12	5[illegible]	B	AOC	150			3661-6010
A13	102	B	AOC	150			3661-6033

Relinquished By: Robert Curran | Date: 11/20/23 | Time: 15:30

Signature: Robert Curran

LAB USE ONLY – BELOW THIS LINE

Received By: HHumphrey

Signature: H

Date: 11/20/23 Time: 2:31 ☐ AM ☑ PM

☐ Email Contact Added

23-11-02885

Due Date:
11/29/2023
(Wednesday)
ER

Non-Viable Spore Trap Analysis Report

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

Telephone: 800.347.4010

Report Number: 23-11-02887

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

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

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02887-001		23-11-02887-002		23-11-02887-003		23-11-02887-004		23-11-02887-005	
Client Sample ID :	A14		A15		A16		A17		A18	
Date Collected :	11/17/2023		11/17/2023		11/17/2023		11/17/2023		11/17/2023	
Collection Location :	B3		B4		B5		B6		OUTDOORS FRONT ENTRY	
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	4	27	9	60	7	47	1	6.7	156	1000
Penicillium/Aspergillus group spores	6	40	13	87	8	53			35	230
Aureobasidium spores	2	13	2	13					8	53
Curvularia spores					1	6.7			1	6.7
Stachybotrys spores					1	6.7			2	13
Chaetomium spores			1	6.7						
Pithomyces spores									1	6.7
Epicoccum spores									2	13
Nigrospora spores									1	6.7
Fusarium spores									3	20
smuts, Periconia, myxomycetes	1	6.7	1	6.7	3	20			70	470
TOTAL SPORES(Spores/m3)		**87**		**170**		**130**		**6.7**		**1900**
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: 23-11-02887

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

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

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02887-006		23-11-02887-007		23-11-02887-008		23-11-02887-009		23-11-02887-010	
Client Sample ID :	A19		A20		A21		A22		A23	
Date Collected :	11/17/2023		11/17/2023		11/17/2023		11/17/2023		11/17/2023	
Collection Location :	B7		B8		CAFEERTIA		AUDITORIUM		SECOND FLOOR HALL ABOVE STAGE	
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	6	40	2	13	4	27	15	100	4	27
Penicillium/Aspergillus group spores			2	13	1	6.7	15	100	1	6.7
Aureobasidium spores							2	13	6	40
Pithomyces spores	1	6.7								
Epicoccum spores	1	6.7								
smuts, Periconia, myxomycetes					2	13	3	20	4	27
Bispora spores	1	6.7								
TOTAL SPORES(Spores/m3)		**60**		**27**		**47**		**230**		**100**
Analyst:	Kitana Usher		Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler	

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: 23-11-02887

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02887-011		23-11-02887-012		23-11-02887-013					
Client Sample ID :	A24		A25		A26					
Date Collected :	11/17/2023		11/17/2023		11/17/2023					
Collection Location :	PFFOCES ABOUT AUDITORIUM LOBBY		KITCHEN		211					
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	1	6.7	1	6.7				
Penicillium/Aspergillus group spores	2	13	1	6.7						
Aureobasidium spores	1	6.7								
smuts, Periconia, myxomycetes	1	6.7	2	13						
TOTAL SPORES(Spores/m3)		**40**		**27**		**6.7**				
Analyst:	Felicia Butler		Felicia Butler		Felicia Butler					

Sample Narratives:

(Sample 005) M03: Substantial amount of particulate observed, counts may be underestimated.

Environmental Hazards Services, L.L.C

Client Number: 200625 **Report Number:** 23-11-02887

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave; 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

Company Address: 2119 North Hamilton Street

City/State/Zip: Richmond/VA/23230

Phone: 804-353-6333

Email: rcurran@ecslimited.com

Project/Testing Address: Ginter Park Elementary School, 3817 Chamberlayne Ave. Richmond, Virginia

PO Number: 47.14153-L

Collected by: Rob Curran

Date Collected: 11/17/23

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

Turnaround Time: ◉ 5 Day ◯ 3 Day ◯ 2 Day ◯ 1 Day ◯ Same Day / Weekend - Must Call Ahead

Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume	Swab Samples	Swab Samples	Comments
[illegible]	B5	B	AOC	150			3661-6021
[illegible]	B4	B	AOC	150			3661-6052
[illegible]	B[illegible]	B	AOC	150			3661-6029
[illegible]	B6	[illegible]	AOC	50			[illegible]
[illegible]	Corridors, front entry	B	AOC	150			3661-6048
[illegible]	B7	B	AOC	50			3661-6039
[illegible]	B8	B	AOC	150			3661-6034
[illegible]	Cafeteria	B	AOC	[illegible]			3661-6017
[illegible]	Auditorium	B	AOC	[illegible]			[illegible]
A2?	Second floor hall above stage	B	AOC	150			3661-6051
[illegible]	Offices above auditorium lobby	B	AOC	150			3661-6042
A2?	Kitchen	B	AOC	150			3661-6050
[illegible]	[illegible]	B	AOC	[illegible]			[illegible]

Relinquished by: Robert Curran Date: 11/20/23 Time: 15:30

Signature: Robert Curran

LAB USE ONLY - BELOW THIS LINE

Received By: HHumphrey

Signature: [signature]

Date: 11.20.23 Time: 2:36 ☐ AM ☑ PM

☐ Portal Contact Added

23-11-02887

Due Date:
11/29/2023
(Wednesday)
ER

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

Non-Viable Spore Trap Analysis Report

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

Telephone: 800.347.4010

Report Number: 23-11-02893

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

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

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02893-001		23-11-02893-002		23-11-02893-003		23-11-02893-004		23-11-02893-005	
Client Sample ID :	A27		A28		A29		A30		A31	
Date Collected :	11/17/2023		11/17/2023		11/17/2023		11/17/2023		11/17/2023	
Collection Location :	212		213		214		215		217	
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							1	6.7	1	6.7
Penicillium/Aspergillus group spores			3	20			4	27	1	6.7
smuts, Periconia, myxomycetes			4	27						
No fungal spores observed		See Notes				See Notes				
TOTAL SPORES(Spores/m3)				**47**				**33**		**13**
Analyst:	Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher	

Notes (Sample 001): No fungal spores observed
Notes (Sample 003): No fungal spores observed

Non-Viable Spore Trap Analysis Report

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

Telephone: 800.347.4010

Report Number: 23-11-02893

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

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

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02893-006		23-11-02893-007		23-11-02893-008		23-11-02893-009		23-11-02893-010	
Client Sample ID :	A32		A33		A34		A35		A36	
Date Collected :	11/17/2023		11/17/2023		11/17/2023		11/17/2023		11/17/2023	
Collection Location :	218		219		220		221		222	
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)**
Penicillium/Aspergillus group spores			1	6.7						
smuts, Periconia, myxomycetes			1	6.7						
No fungal spores observed		See Notes				See Notes		See Notes		See Notes
TOTAL SPORES(Spores/m3)				**13**						
Analyst:	Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher	

Notes (Sample 006): No fungal spores observed
Notes (Sample 008): No fungal spores observed
Notes (Sample 009): No fungal spores observed
Notes (Sample 010): No fungal spores observed

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: 23-11-02893

Received Date: 11/20/2023
Analyzed Date: 11/29/2023
Reported Date: 11/29/2023

Project/Test Address: Ginter Park Elementary School; 3817 Chamberlayne Ave.; Richmond, Virgina

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-02893-011		23-11-02893-012							
Client Sample ID :	A37		A38							
Date Collected :	11/17/2023		11/17/2023							
Collection Location :	TEACHERS LOUNGE		OUTSIDE NORTH SIDE ENTRANCE							
Sampling Media :	Air-O-Cell		Air-O-Cell							
Analytical Sensitivity (spores/m3) :	6.7		6.7							
Volume (L) :	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	75	500						
Penicillium/Aspergillus group spores	149	990	10	67						
Arthrinium spores			2	13						
Curvularia spores			1	6.7						
Pithomyces spores			1	6.7						
Epicoccum spores			1	6.7						
smuts, Periconia, myxomycetes	3	20	60	400						
TOTAL SPORES(Spores/m3)		**1100**		**1000**						
Analyst:	Kathy Fletcher		Kathy Fletcher							

Method: Non-Culturable Spore Trap Examination

Reviewed By Authorized Signatory: Tasha Eaddy

Tasha Eaddy
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:	Ginter Park Elementary School, 3817 Chamberlayne Ave, Richmond, Virginia		
Project Number:	47:14153-L	Collected By:	Rob Curran
Collection Date & Time:	11/17/23	Outside Air Temp:	Indoor Air Temp:

Was there any precipitation (rain, sleet or snow) 2 hours of air sample collection? ☐ Yes ☑ No

Turnaround Time: ◉ 5 Day ◯ 3 Day ◯ 2 Day ◯ 1 Day ◯ Same Day / Weekend - Must Call Ahead

[illegible]

Sample Number	Location / Description	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Liters)	Lab Samples: Surface Type	Lab Samples: Area or Bulk Size	Analysis Requested	Comments
[illegible]	212	B	AOC	150				3661-6120
[illegible]	213	B	AOC	150				[illegible]
[illegible]	214	B	AOC	150				3661-6043
[illegible]	215	B	AOC	150				3661-6049
A31	217	B	AOC	150				3631-6068
[illegible]	218	B	AOC	150				[illegible]
[illegible]	219	B	AOC	150				3661-6202
[illegible]	220	B	AOC	150				3661-6048
A35	221	B	AOC	150				3661-6040
A36	222	B	AOC	150				3661-6114
[illegible]	Teachers lounge	B	AOC	150				3661-6039
[illegible]	Outdoors: north side entrance	B	AOC	150				3661-6113

Relinquished By: Robert Curran Date: 11/20/23 Time: 15:30

Signature: Robert Curran

LAB USE ONLY - BELOW THIS LINE

Received By: HHumphrey

Signature: H

Date: 11/20/23 Time: 2:39 ☐ AM ☑ PM

☐ Email Contact Added

23-11-02893

Due Date:
11/29/2023
(Wednesday)
ER

Appendix III: Site Photographs

1 - General view of pipe with mold associated with a ceiling mounted fan coil unit.

2 - General view of a ceiling mounted fan coil unit with heavy dust and suspect mold on vents.

3 - Room 218 with water stained ceiling plaster; suspect mold observed.

4 - View of plaster wall in the closet of room 218 with visible mold.

5 - View of room 217 ceiling with damaged plaster and water staining.

6 - View of room 211 ceiling showing water damage. ECS also observed a portion of the plaster on the floor below ceiling plaster.

7 - View of room 211 ceiling showing water damage. ECS also observed a portion of the plaster on the floor below the damaged plaster.

8 - View of the bulk head in the teachers lounge where it appears damage to the plaster has occurred from a possible pipe leak.

9 - View of room 222 with water damaged and stained ceiling plaster.

10 - View of damaged plaster bulk head in room 220 - possibly from pipe leaks.

11 - View of damaged plaster in room B8 possibly from water intrusion from the exterior.

12 - View of damaged plaster in room B8 with visible mold observed.

13 - View of moisture reading of the plaster wall in B8 showing elevated moisture levels.

14 - View of water damaged plaster wall between the windows of room B7.

15 - View of exterior asphalt outside the basement room. ECS is unsure if this is outside room B8 where we observed active water intrusion and damaged plaster.

16 - View of mulch outside the basement room. ECS believes this may contribute to water intrusion if exterior water proofing is failing.

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

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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

Virginia Department of Health, Environmental Health, Public Health Toxicology, Mold https://www.vdh.virginia.gov/environmental-health/public-health-toxicology/mold/