Intended for **Kildeer Countryside Community Consolidated School District 96** 

**Revised September 2023** 

Project Number 1690030209-001

## **INDOOR ENVIRONMENTAL QUALITY and MOLD ASSESSMENT Woodlawn Middle School and Country Meadows Elementary School**

Ramboll 333 West Wacker Drive Suite 2700 Chicago, IL 60606 USA T +1 312 288 3800 www.ramboll.com



## **CONTENTS**

	SUMMARY	1
1.	INTRODUCTION	3
2.	RESULTS	3
2.1	Visual Assessment	3
2.2	Ventilation Systems	5
2.3	Airborne Mold Sampling	5
2.4	Air Quality Measurements	5
2.4.1	Temperature & Relative Humidity (RH)	5
2.4.2	Carbon Dioxide (CO <sub>2</sub> )	6
2.4.3	Carbon Monoxide (CO)	6
3.	CONCLUSIONS AND RECOMMENDATIONS	7

## 3. CONCLUSIONS AND RECOMMENDATIONS

#### **APPENDICES**

Appendix A:	Data Table	2S
Tabl	e I:	Airborne Mold Spore Trap Sample Results Woodlawn Middle School and Country Meadows Elementary School Long Grove, Illinois
Table II:		CO <sub>2</sub> , CO, Temperature, and Relative Humidity Woodlawn Middle School and Country Meadows Elementary School Long Grove, Illinois
Appendix B:	Methodolo	gy, Standards, & Guidelines
Appendix C:	Laboratory	/ Reports and Chain of Custody
Appendix D:	Calibration	n Certificate

## **ACRONYMS AND ABBREVIATIONS**

%:	percent
<sup>0</sup> F:	Fahrenheit
AHUs:	air handling unit
AIHA:	American Industrial Hygiene Association
ASHRAE:	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
BAS:	Building Automation System
CMU:	concrete masonry unit
CO:	Carbon Monoxide
CO2:	Carbon Dioxide
EMLAP:	Environmental Microbiology Laboratory Accreditation Program
EPA:	Environmental Protection Agency
IEQ:	Indoor Environmental Quality
lpm:	liters of air per minute
ppm:	parts per million
Ramboll:	Ramboll US Consulting, Inc.
RH:	Relative Humidity
spores/m³:	spores per cubic meter of air
USEPA:	United States Environmental Protection Agency

## SUMMARY

An Indoor Environmental Quality (IEQ) and mold assessment was conducted on March 27, April 18, and May 1, 2023, at Woodlawn Middle School and Country Meadows Elementary School. Both schools are in the same building located at 6362 and 6360 Gilmer Road in Long Grove, Illinois. The assessment consisted of room-by-room visual inspection of the building, including inside ventilation systems, measurements for common IEQ parameters, and collection of samples for airborne mold spores.

The visual assessment was performed on March 27, 2023. This was done over spring break to allow for thorough inspection of rooms and ventilation systems without class disruption. IEQ measurements and sampling for airborne mold spores was performed on April 18 and May 1, 2023. These days were selected to evaluate conditions on school days, with normal occupancy and classroom activity. The protocol was repeated on two days to account for potential variability and verify that results are reproducible.

#### Visual Assessment

The building, and ventilation systems, appeared very clean and well maintained. There were no indications of moisture problems or mold growth to the extent that indoor air quality (IAQ) would be affected. Most walls were concrete masonry unit construction and flooring in corridors and common areas were non-porous surfaces, these building materials generally do not support mold growth. Carpeting, wallboard, ceilings, and other porous materials were found to be clean and in good condition.

There was no apparent water damage inside accessible areas of ventilation systems. Outdoor air intakes were through gables located on the roof and were clean, unobstructed, and away from contaminant sources. Air filters were in place and in good condition. A mechanical contractor was on-site at the time of the inspection. The contractor was performing routine cleaning and maintenance of ventilation systems, which is normally done over spring break.

Small areas of mold growth were observed in two locations. Combined, these areas were less than approximately 3 square feet of mold growth across the two schools. For context, the United States Environmental Protection Agency (USEPA) defines a mold growth of less than 10 square feet in a given area as "small".<sup>1</sup> The two areas are described as follows:

- A few square inches of mold was observed in a cabinet under a science lab sink in room 710. The cabinet was dry, indicating that this was likely caused by a past leak from the sink which had since been repaired.
- There were a couple square feet of mold growth on the drywall ceiling in the Fire Panel Room/Electrical Room. This room is locked and not accessible to students. The ceiling was dry at the time of the assessment. It was reported that this was caused by water damage from a backed-up gutter that had been repaired.

#### Airborne Mold Samples

Indoor samples were collected on each day of the assessment from 23 rooms, for a total of 46 samples. An additional 8 samples were collected outdoors to allow for comparison between indoor and outdoor mold concentrations and types. Rooms were selected to include at least one location from each ventilation zone.

<sup>&</sup>lt;sup>1</sup> USEPA Mold Remediation in Schools and Commercial Buildings, document EPA-402-K-01-001, 2008.

Airborne mold concentrations were lower inside the building than outdoors at all locations and the array of mold types was similar in indoor and outdoor air. Indoor airborne mold spore concentrations ranged from less than 20 to 480 spores per cubic meter of air (spores/m<sup>3</sup>) with an average indoor concentration of 126 spores/m<sup>3</sup><sup>2</sup> while outdoor concentrations were between 240 and 4,800 spores/m<sup>3</sup> with an average outdoor concentration of 1,130 spores/m<sup>3</sup>. Results were consistent across both days of sampling, demonstrating reproducibility.

These results support the observations made in the visual assessment that mold growth is not a concern in these schools.

#### IEQ Measurements

IEQ parameters included carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), temperature, and relative humidity (RH).

- CO<sub>2</sub> is a by-product of human respiration and measurements are made to estimate if the amount of outdoor air being brought into classrooms is sufficient for the number of room occupants. In general, CO<sub>2</sub> levels should be less than approximately 700 parts per million (ppm) above outdoors, or 1,150 ppm. Results were within this guideline for all but classrooms 612, 812 and 816. These rooms had concentrations slightly above guidelines. This is not a health risk but indicates that the amount of outdoor air brought in through ventilation systems could be increased.
- CO was not detected in the schools.
- Temperatures ranged from 69 degrees Fahrenheit (<sup>0</sup>F) to 75<sup>0</sup>F across both schools. These were within recommended comfort guidelines.
- RH ranged the low 20 percent (%) to mid-30%. RH was typically within the lower range of recommended levels. This is not unusual for the climate in Northern Illinois during the late winter/early spring, when the buildings are being heated. Increasing RH would require supplemental humidification which can result in condensation and microbial growth in buildings and is generally not recommended for this type of school building.

<sup>&</sup>lt;sup>2</sup> Worse case calculation by assuming results below the limit of quantification were at the limit of quantification (i.e., <20 = 20).

## **1. INTRODUCTION**

An IEQ and mold assessment was conducted on March 27, April 18, and May 1, 2023, at Woodlawn Middle School and Country Meadows Elementary School. Both schools are in the same building located at 6362 and 6360 Gilmer Road in Long Grove, Illinois. The assessment consisted of room-by-room visual inspection of the building, including inside ventilation systems, measurements for common IEQ parameters, and collection of samples for airborne mold spores.

Project oversight and management was provided by Robert Rottersman, MS, CIH Principal with Ramboll Americas Engineering Solutions, Inc. (Ramboll)<sup>3</sup>. The on-site assessment was completed by Mr. Rottersman and Scott Fountain, Managing Consultant with Ramboll.

The visual assessment was performed on March 27, 2023. This was done over spring break to allow for thorough inspection of rooms and ventilation systems without class disruption. IEQ measurements and sampling for airborne mold spores was performed on April 18 and May 1, 2023. These days were selected to evaluate conditions on school days, with normal occupancy and classroom activity. The protocol was repeated on two days to account for potential variability and verify that results are reproducible.

This report is representative of observations, conditions, test data, and information obtained on the days of the assessment.

Results tables are included in Appendix A, methodology can be found in Appendix B, laboratory reports are included in Appendix C, and certificates of calibration are in Appendix D.

## 2. **RESULTS**

Results are presented and discussed below. Laboratory reports are included in Appendix C.

#### 2.1 Visual Assessment

The assessment included a room-by-room inspection of the schools. This included classrooms, offices, cafeteria, gymnasiums, locker rooms, mechanical rooms, storage areas, etc. A limited inspection of the attic areas was also included. The inspection focused on areas that would be most likely to sustain water damage that could result in mold growth such as exterior walls, ceilings, walls with plumbing chases, below sinks, etc.

Observations found the building to be clean, well maintained, and low risk for mold growth or other conditions that could adversely affect air quality in the building.

Small amounts of mold growth were observed in two locations. These were both minor conditions that would not be expected to affect air quality in the building. The identification of only two small areas in a large school building indicated a very well-maintained school. Most schools of this size that Ramboll has inspected contain some areas of mold growth, often more numerous and larger in size than observed in Woodlawn and Country Meadows schools. These areas are described as follows:

• A few square inches of mold was observed in a cabinet under a science lab sink in room 710. The cabinet was dry, indicating that this was likely caused by a past leak from the sink which had since been repaired.

<sup>&</sup>lt;sup>3</sup> As of September 1, 2023 Ramboll US Consulting, Inc. is now Ramboll Americas Engineering Solutions, Inc.

• There were a couple square feet of mold growth on the drywall ceiling in the Fire Panel Room/Electrical Room. This room is locked and not accessible to students. The ceiling was dry at the time of the assessment. It was reported that this was caused by water damage from a backed-up gutter that had been repaired.

These were both minor conditions that would not be expected to affect air quality in the building. The identification of only two small areas in a large school building indicated a very well-maintained school.





Photo 1 - Below a sink in room 710, during the assessment.

Photo 2 - Below sink in room 710, after repair and cleaning



Photo 3 - Water damaged ceiling in the Fire Panel/Electrical room during the assessment.



Photo 4 - Damaged ceiling in the Fire Panel/Electrical room removed and replaced.

Ramboll notified the school's facility maintenance staff and affected materials in both areas were removed and surrounding surfaces were cleaned.

Most interior and exterior walls of the schools were concrete masonry unit (CMU) construction. This inorganic building material will not typically support mold growth. Drywall was used in some locations as interior partition walls. Inspection of drywall walls did not identify signs of water damage or mold growth.

In most of the school the ceiling consisted of lay-in tiles in a grid. The ceiling tiles were found to be clean and in good condition. There were a few locations with small water stains on ceiling tiles, mold was not apparent. These tiles were reportedly replaced at the time of the assessment.

Floor surfaces appeared relatively new, clean and in good condition. Floors in corridors and common areas were non-porous surfaces which would not be expected to support mold growth. Carpeting in classrooms and offices appeared clean with no obvious signs of water damage.

Representative areas of the attic were inspected and found to be clean with no obvious evidence of water damage including leaks or condensation.

#### 2.2 Ventilation Systems

Ventilation to the building is provided by ten (10) air handling units (AHUs) located in mechanical penthouses throughout the schools. It was reported that preventative maintenance, including filter changes, are performed over winter, spring, and summer breaks by third party mechanical contractor. The contractor was on-site at the time of Ramboll's inspection and were observed changing filters, performing maintenance, and performed spot cleaning of dust accumulations in the systems. The ventilation system is controlled by a Building Automation System (BAS).

Ramboll inspected accessible components of the ventilation systems most likely to affect indoor air quality or support mold growth. These included outdoor air intakes, filters, cooling coils, condensate drain pans, internal insulation, etc.

The AHUs were found to be in good condition with no apparent evidence of moisture damage or mold growth. Air filters were new and fit securely in their frames.

Outdoor air intakes were located on roof gables and appeared clean and unobstructed. The position of the intakes, on the roof, were away from contaminant sources and therefore are less likely to have accumulation of organic debris, such as leaves and grass clippings, as compared to ground level intakes that are common in many other school buildings.

#### 2.3 Airborne Mold Sampling

A summary of airborne mold spore results and the respective sample locations is presented in Table I in Appendix A. Laboratory reports are included in Appendix C.

Mold is ubiquitous in the outdoor environment and produces spores as part of its reproductive cycle; these spores are commonly found airborne in both outdoor and indoor air. Due to ventilation system filtration and the fact that indoor conditions in general do not support mold growth, indoor mold spore counts are typically lower than outdoor counts. However, if sufficient moisture is present, mold can proliferate within a building as the nutrients for its growth are readily available. Currently levels of mold spores are not covered by any regulatory standard. Interpretation of results is typically done by comparing indoor to outdoor concentrations and distribution of mold types as well as comparing indoor locations to each other.

Indoor samples were collected on each day of the assessment from 23 rooms, for a total of 46 samples. An additional 8 samples were collected outdoors, four on each day of testing, to allow for comparison between indoor and outdoor mold concentrations and types. Rooms were selected to include at least one location from each ventilation zone.

Airborne mold concentrations were lower inside the building than outdoors at all locations and the array of mold types was similar in indoor and outdoor air. Indoor airborne mold spore concentrations ranged from less than 20 to 480 spores/m<sup>3</sup> with an average indoor concentration of 126 spores/m<sup>3</sup>, while outdoor concentrations were between 240 and 4,800 spores/m<sup>3</sup> with an average outdoor concentration of 1,130 spores/m<sup>3</sup>. These results support the observations made in the visual assessment that mold growth is not a concern in these schools.

#### 2.4 Air Quality Measurements

A summary of air quality measurements and the respective sample locations are presented in Table II in Appendix A.

#### 2.4.1 Temperature & Relative Humidity (RH)

Temperature and RH are physical conditions which can affect perceptions of indoor air quality by affecting human comfort. Temperature and RH measurements were measured throughout the school on April 18 and May 1, 2023.

<sup>&</sup>lt;sup>4</sup> Worse case calculation by assuming results below the limit of quantification were at the limit of quantification (i.e., <20 = 20).

Temperatures ranged from 69 <sup>o</sup>F to 75<sup>o</sup>F across both schools. These were within recommended comfort guidelines set by the American Society of Heating, Refrigeration, and Air Conditioning (ASHRAE).

RH ranged the low 20% to mid-30%. RH was typically within the lower range of recommended levels. This is not unusual for the climate in Northern Illinois during the late winter/early spring, when the buildings are being heated. Increasing RH would require supplemental humidification which can result in condensation and microbial growth in buildings and is generally not recommended for this type of school building.

#### 2.4.2 Carbon Dioxide (CO<sub>2</sub>)

 $CO_2$  is an odorless, nontoxic gas present in the outdoor air in concentrations usually ranging from 300 to 500 ppm. The primary source of  $CO_2$  in the indoor environment is human respiration.  $CO_2$  concentrations in the indoor air are usually diluted by the introduction of outside air through the ventilation system. During this survey,  $CO_2$  concentrations were measured to estimate if the amount of outside air entering the rooms was sufficient for the population.

Measurements for  $CO_2$  were taken outdoors for comparison to the recommended guideline of maintaining indoor levels within 700 ppm of outdoor levels.  $CO_2$  outdoors measured around 436-473 ppm; therefore 1,150 ppm is used as a guideline.

Results are included in Table II in Appendix A. Results were within this guideline for all but classrooms 612, 812, and 816. These rooms had concentrations slightly above the recommended guidelines. This is not a health risk but indicates that the amount of outdoor air brought in through ventilation systems could be increased.

#### 2.4.3 Carbon Monoxide (CO)

CO is an odorless gas and a chemical asphyxiant produced as a result of incomplete combustion. Exhausts from gas powered vehicles and/or malfunctioning gas or oil-fired heaters are common sources of CO in indoor environments.

CO was not detected inside the school or outdoors.

## 3. CONCLUSIONS AND RECOMMENDATIONS

IEQ in Woodlawn Middle School and Country Meadows Elementary School was found to be very good. Building materials, surfaces and ventilation systems were in good condition and well maintained. The number, and extent, of findings identified for follow-up action were much less than Ramboll typically encounters when performing similar assessments in other school buildings.

The following recommendations are offered for consideration. They are intended to promote good environmental quality within the facility. Implementation of these recommendations is not required by any regulatory agency but would be considered good practice. They should not be construed as the only options available or inclusive of all potential environmental quality parameters within the facility.

#### **Recommendations are as follows:**

- Remove mold contaminated material from the cabinet under the sink in Classroom 710 and the ceiling in the Fire Panel/Electrical Room. Both areas should be addressed following the Environmental Protection Agency (EPA) guidelines for "small" areas, less than 10 square feet of affected material. These repairs have been completed.
- Consider adjusting the outdoor air dampers to increase the amount of outdoor air brought in through the ventilation systems when classrooms are at full occupancy.

Results of this survey are based on conditions present on the days of the assessment.

Please contact our office if you have any questions regarding the above report. Ramboll thanks you for the opportunity to be of service.

Sincerely,

Ramboll Americas Engineering Solutions, Inc.

Robert B. Rottersman, MS, CIH Principal D 312.288.3857 rrottersman@ramboll.com

**APPENDIX A** DATA TABLES

## Table I Airborne Mold Spore Trap Sample Results

Woodlawn Middle School and Country Meadows Elementary School Long Grove, Illinois April 18 & May 1, 2023

Location	Date	Sample ID	Concentration (spores/m <sup>3</sup> )
Outdoorn Weedlown Main Entroped	4/18/2023	041423-01	640
Outdoors - woodawn Main Entrance	5/1/2023	050123-01	240
	4/18/2023	041423-27	4,800
Outdoors – 100 Wing	5/1/2023	050123-27	480
	4/18/2023	041423-11	440
Outdoors – 800 Wing	5/1/2023	050123-09	1,400
	4/18/2023	041423-22	240
Outdoors – 200 Wing	5/1/2023	050123-22	800
	4/18/2023	041423-02	160
Classroom 600	5/1/2023	050123-10	160
	4/18/2023	041423-03	100
Classroom 612	5/1/2023	050123-11	240
	4/18/2023	041423-04	20
Classroom 708	5/1/2023	050123-02	<20
	4/18/2023	041423-05	80
Classroom 714	5/1/2023	050123-03	<20
	4/18/2023	041423-06	20
Classroom 804	5/1/2023	050123-04	80
	4/18/2023	041423-07	80
Classroom 814	5/1/2023	050123-06	<20
	4/18/2023	041423-08	20
Classroom 818	5/1/2023	050123-05	80
	4/18/2023	041423-09	100
Classroom 816	5/1/2023	050123-07	120
	4/18/2023	041423-10	160
Classroom 812	5/1/2023	050123-08	<20
	4/18/2023	041423-12	20
Learning Center 511	5/1/2023	050123-12	<20
	4/18/2023	041423-13	20
Classroom 504	5/1/2023	050123-13	260
	4/18/2023	041423-14	<20
Woodlawn Cafeteria	5/1/2023	050123-14	720
	4/18/2023	041423-15	<20
Band room 402	5/1/2023	050123-15	160
	4/18/2023	041423-16	40
Woodlawn Gymnasium	5/1/2023	050123-16	<20
	4/18/2023	041423-17	40
Woodlawn Competition Gymnasium	5/1/2023	050123-17	480
	4/18/2023	041423-18	40
Elementary Gymnasium (south)	5/1/2023	050123-18	80

# Table IICO2, CO, Temperature, and Relative HumidityWoodlawn Middle School and Country Meadows Elementary SchoolLong Grove, IllinoisApril 18 & May 1, 2023

Location	Date	Time	CO <sub>2</sub> (ppm)	Temp (°F)	Relative Humidity (%)	CO (ppm)
Outdoore Weedlown Main Entroped	4/18/2023	0840	456	42	53.1	0.0
Outdoors – woodlawn Main Entrance	5/1/2023	0840	450	42	70.2	0.0
Outdoors 800 Wing	4/18/2023	1000	470	45	34.9	0.0
Outdoors – 800 Wing	5/1/2023	1050	436	48	64.5	0.0
Outdoors 200 Wing	4/18/2023	1146	447	48	39.7	0.0
Outdoors - 200 Wing	5/1/2023	1236	444	50	58.4	0.0
Outdoors - 100 Wing	4/18/2023	1240	473	53	31.9	0.0
Outdoors - 100 Wing	5/1/2023	1400	445	48	61.0	0.0
Classroom 600	4/18/2023	0848	802	69	30.0	0.0
	5/1/2023	1059	1,017	69	37.0	0.0
Classroom 612	4/18/2023	0856	1,070	72	27.9	0.0
	5/1/2023	1106	1,280	71	35.7	0.0
Classroom 708	4/18/2023	0903	980	74	24.7	0.0
	5/1/2023	0957	612	75	28.3	0.0
Classroom 714	4/18/2023	0911	692	74	21.0	0.0
	5/1/2023	1005	520	73	28.1	0.0
Classroom 804	4/18/2023	0920	771	74	21.3	0.0
	5/1/2023	1014	761	73	29.4	0.0
Classroom 814	4/18/2023	0928	760	74	21.1	0.0
	5/1/2023	1028	785	71	31.8	0.0
Classroom 818	4/18/2023	0936	766	75	20.0	0.0
	5/1/2023	1021	889	71	32.1	0.0
Classroom 816	4/18/2023	0944	1,518	74	25.6	0.0
	5/1/2023	1036	1,265	71	35.9	0.0
Classroom 812	4/18/2023	0951	930	/4	23.1	0.0
	5/1/2023	1043	1,282	/3	33.4	0.0
Learning Center 511	4/18/2023	1010	601	/1	23.5	0.0
	5/1/2023	1114	639	72	30.5	0.0
Classroom 504	4/18/2023	1026	790	71	24.3	0.0
	5/1/2023	1025	848	72	32.4	0.0
Woodlawn Cafeteria	4/18/2023	1120	707	72	23.2	0.0
	3/1/2023	1043	604	72	32.9	0.0
Band room 402	4/10/2023 5/1/2023	1127	816	73	22.3	0.0
	//1/2023	1052	760	72	32.0	0.0
Woodlawn Gymnasium	5/1/2023	11/15	700	72	32.0	0.0
	4/18/2023	1100	797	73	24.3	0.0
Woodlawn Competition Gymnasium	5/1/2023	1152	852	71	34.1	0.0
	4/18/2023	1111	1 080	72	27.6	0.0
Elementary Gymnasium (south)	5/1/2023	1158	975	71	34.5	0.0
	4/18/2023	1118	1,130	72	28.0	0.0
Elementary Gymnasium (north)	5/1/2023	1205	991	71	33.8	0.0
	4/18/2023	1128	1,080	72	28.8	0.0
General Music 300	5/1/2023	1212	1,105	71	36.2	0.0
Landia Casta 210	4/18/2023	1137	607	73	21.5	0.0
Learning Center 319	5/1/2023	1219	584	73	29.8	0.0
Classers are 210	4/18/2023	1155	641	71	24.7	0.0
	5/1/2023	1244	623	70	33.3	0.0
Classroom 220	4/18/2023	1203	698	73	23.7	0.0
	5/1/2023	1250	733	70	33.0	0.0
Classroom 102	4/18/2023	1214	807	75	23.0	0.0
	5/1/2023	1257	895	73	30.5	0.0
Classroom 110	4/18/2023	1222	683	73	22.5	0.0
	5/1/2023	1303	873	74	32.1	0.0

**APPENDIX B** METHODOLOGY, STANDARDS, & GUIDELINES

## **METHODOLOGY**

The survey included a visual inspection of each room in both schools, as well as measurements of comfort parameters including temperature, RH, CO, and  $CO_2$  in both areas. The collection of air samples for potential mold contamination was used as a tool to assess the potential for hidden indoor mold growth.

#### Airborne Mold Sampling

Tests for airborne mold spores were performed to supplement the visual inspection component of the assessment. Currently, there are no reputable established standards or recommendations for acceptable levels of airborne mold spores. In lieu of any established guidelines, results are typically compared to outdoor concentrations. Results with abnormal levels (e.g., higher concentrations inside the building vs. outside) or distribution of mold types that are different than those observed outside the building may indicate the possibility of a concealed indoor growth source and the need for a more detailed inspection of the area to identify the source. When mold is not visually apparent and there is no evidence of water intrusion (such as water stains, bubbling paint, efflorescence, etc.) sample results with normal concentrations and species distribution can provide additional confidence that mold growth is not a concern in the test areas.

Mold sampling was conducted using a Burkard air sampling device, which is a slit, spore trap, impactor. The Burkard uses a pre-greased microscope slide that is inserted into the Burkard and turned on for a pre-determined period of time (typically between 3 and 7 minutes) at a flow rate of 10 liters of air per minute (lpm). The slides are removed, placed in a plastic holding case, and sent to the laboratory for analysis. Samples were analyzed by light microscopy to provide a count and classification for fungal components trapped on the slide.

Sample analysis was performed via light microscopy by Eurofins EMLab in Marlton, NJ which is accredited by the American Industrial Hygiene Association (AIHA) through the Environmental Microbiology Laboratory Accreditation Program (EMLAP).

#### Carbon Dioxide (CO<sub>2</sub>)

 $CO_2$  is a by-product of human respiration (exhaled air). Measurements of  $CO_2$  concentrations within a building are often used as a surrogate for determining the adequacy of outside air ventilation provided to the space. Measurements for  $CO_2$  were taken at the same times and locations as the airborne mold spore samples were taken. All measurements were made with a TSI Q-Trak. Model 8551.

#### **Temperature & Relative Humidity**

Temperature and RH are comfort parameters which are important to the perception of air quality. Temperature and RH readings were obtained at the same locations and times as CO<sub>2</sub> measurements as described above. All measurements were made with a TSI Q-Trak, Model 8551.

#### Carbon Monoxide (CO)

CO is a contaminant gas which may enter an indoor environment from vehicle exhaust gas infiltration, cracked furnace heat exchangers, cross contamination from exhaust stacks, etc. Excess exposure can cause nausea, shortness of breath, and headaches. Tests for CO were conducted at the same locations and times as the occupant comfort parameters using the TSI Q-Trak, Model 8551.

**APPENDIX C** LABORATORY REPORTS AND CHAIN OF CUSTODY



**Built Environment Testing** 

Report for:

Mr. Scott Fountain Ramboll US Corporation: Illinois 333 W. Wacker Drive, Suite 2700 Chicago, IL 60606

Regarding:

Eurofins EPK Built Environment Testing, LLC Project: 16900; Spore Trap EML ID: 3235496

Approved by:

Technical Manager Ariunaa Jalsrai

Dates of Analysis: Spore trap analysis: 04-20-2023 and 04-21-2023

Service SOPs: Spore trap analysis (EM-MY-S-1038) AIHA-LAP, LLC accredited service, Lab ID #103005

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested. Information supplied by the client which can affect the validity of results: sample air volume.

Eurofins EPK Built Environment Testing, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Eurofins EPK Built Environment Testing, LLC's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-01: outdoors - woodland - main entrance			041823-02: Classroom 600		
Comments (see below)		None		None		
Lab ID-Version <sup>†</sup> :		15677030-	1		15677031-	1
Analysis Date:		04/20/202	3		04/20/202	3
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Ascospores	1	25	80			50000,110
Basidiospores	2	25	160			
Bipolaris/Drechslera group						
Chaetomium						
Cladosporium	1	25	80	1	25	80
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†	4	25	320	1	25	80
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	1+			1+		
Hyphal fragments/m3	20			< 20		
Pollen/m3	20			< 20		
Skin cells (1-4+)	< 1+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			640			160

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-03: Classroom 612			041823-04: Classroom 708		
Comments (see below)		None	-	None		
Lab ID-Version <sup>‡</sup> :		15677032-	1	15677033-1		
Analysis Date:		04/20/202	3		04/20/2023	3
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Ascospores			÷			•
Basidiospores	1	25	80			
Bipolaris/Drechslera group						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum	1	100	20			
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes				1	100	20
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	2+			1+		
Hyphal fragments/m3	< 20			< 20		
Pollen/m3	< 20			< 20		
Skin cells (1-4+)	2+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			100			20

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-05:			041823-06:		
Comments (see below)	(	None	/14	None		
Lah ID-Version <sup>†</sup> :		15677034	1	15677035_1		
Analysis Date:		04/21/202	3		04/21/2022	2
Anarysis Date.		04/21/202		many of	04/21/202.	, 
<b>A</b> and an an an a	raw ct.	% leau	spores/m5	raw cl.	% Teau	spores/m5
Ascospores						
Basidiospores						
Bipolaris/Drechsiera group						
Chaetomium	1	25	00			
	1	23	80			
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora					100	•
Other brown				1	100	20
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	1+			1+		
Hyphal fragments/m3	< 20			< 20		
Pollen/m3	< 20			< 20		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			80			20

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-07:			041823-08:		
Comments (see below)	t	None	514	None		
Lah ID-Version <sup>+</sup> :		15677036	.1	15677027 1		
Analysis Date:		04/21/202	2		04/21/2020	2
Analysis Date.		04/21/202	5		04/21/202.	) ( )
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Ascospores		25				
Basidiospores	1	25	80			
Bipolaris/Drechslera group						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes				1	100	20
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	1+			2+		
Hyphal fragments/m3	< 20			20		
Pollen/m3	< 20			< 20		
Skin cells (1-4+)	1+			2+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			80			20

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-09: Classroom 816			041823-10: Classroom 812		
Comments (see below)		None	510	None		
Lab ID-Version <sup>‡</sup> :		15677038-	1		15677039-	1
Analysis Date:		04/21/202	3		04/21/2023	3
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Ascospores				1	25	80
Basidiospores				1	25	80
Bipolaris/Drechslera group						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†	1	25	80			
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	100	20			
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	2+			1+		
Hyphal fragments/m3	< 20			20		
Pollen/m3	< 20			20		
Skin cells (1-4+)	2+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			100			160

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-11: Outdoors 800 Wing		041823-12: Learning Center 511			
Comments (see below)	Out	None	, wing	None		
Lab ID-Version <sup>†</sup> :		15677040-	.1		15677041-	1
Analysis Date:		04/21/202	3		04/21/202	3
	raw ct	% read	spores/m3	raw cf	% read	spores/m3
Ascospores	2	25	160	iuw et.	, o 1000	50005/1115
Basidiospores	3	25	240			
Bipolaris/Drechslera group						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces	1	100	20			
Rusts						
Smuts, Periconia, Myxomycetes	1	100	20	1	100	20
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	1+			1+		
Hyphal fragments/m3	20			< 20		
Pollen/m3	20			< 20		
Skin cells (1-4+)	< 1+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			440			20

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-13:		041823-14:			
Comments (see below)	L L	None	504			
Lak ID Variant		15(77042	1	A 15 (770.42.1		
Lab ID-version <sub>4</sub> :		15677042-	2		15677043-	1
Analysis Date:		04/21/202	3		04/21/202	3
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Ascospores						
Basidiospores						
Bipolaris/Drechslera group						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum	1	100	20			
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types <sup>†</sup>						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+) <sup>††</sup>	1+			1+		
Hyphal fragments/m3	< 20			< 20		
Pollen/m3	< 20			< 20		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			20			< 20

Comments: A) No spores detected.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	F	041823-15	5: 402	041823-16: Middle School Gym					
Comments (see below)	L	A	+02	None					
Lab ID-Version <sup>†</sup> :		15677044-	1	15677045-1					
Analysis Date:		04/21/202	3		04/21/2023				
	raw cf	% read	spores/m3	raw cf	% read	spores/m3			
Ascospores	ium ott		50100,1110	1411 011		50105,1110			
Basidiospores									
Bipolaris/Drechslera group				1	100	20			
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum				1	100	20			
Fusarium									
Myrothecium									
Nigrospora									
Other brown									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	1+			1+					
Hyphal fragments/m3	< 20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			2+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			< 20			40			

Comments: A) No spores detected.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	MC141-C-1	041823-1	7:	041823-18: Elementary School Cym (couth)					
Comments (see below)	Middle Sci	None	etition Grym	None					
		15(77046	1						
Lab ID-version <sub>4</sub> :		15677046-	1	156//04/-1					
Analysis Date:		04/21/202	3		04/21/2023	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores									
Basidiospores									
Bipolaris/Drechslera group									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum	1	100	20						
Fusarium									
Myrothecium									
Nigrospora									
Other brown									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces				1	100	20			
Rusts									
Smuts, Periconia, Myxomycetes	1	100	20	1	100	20			
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	2+			2+					
Hyphal fragments/m3	< 20			20					
Pollen/m3	< 20			20					
Skin cells (1-4+)	2+			1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			40			40			

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Elementa	041823-19 ry School (	9: Gym (north)	Ge	041823-20: General Music 300				
Comments (see below)		None		None					
Lab ID-Version <sup>‡</sup> :		15677048-	1		15677049-1				
Analysis Date:		04/21/202	3		04/21/2023				
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores			•			•			
Basidiospores				1	25	80			
Bipolaris/Drechslera group									
Chaetomium									
Cladosporium	1	25	80						
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other brown				1	100	20			
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	1+			2+					
Hyphal fragments/m3	< 20			20					
Pollen/m3	< 20			20					
Skin cells (1-4+)	3+			2+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			80			100			

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Lea	041823-22 rning Cent	1: er 319	041823-22: Outdoors - 200 Wing					
Comments (see below)		None		040	None				
Lab ID-Version <sup>‡</sup> :		15677050-	1		15677051-1				
Analysis Date:		04/21/202	3		04/21/2023				
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores									
Basidiospores				2	25	160			
Bipolaris/Drechslera group									
Chaetomium									
Cladosporium				1	25	80			
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other brown									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes	1	100	20						
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	1+			1+					
Hyphal fragments/m3	< 20			20					
Pollen/m3	< 20			20					
Skin cells (1-4+)	1+			<1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			20			240			

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	(	041823-23 Classroom 2	3: 210	041823-24: Classroom 220					
Comments (see below)		А		None					
Lab ID-Version <sup>‡</sup> :		15677052-	1	15677053-1					
Analysis Date:		04/21/202	3		04/21/2023				
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores			•			•			
Basidiospores									
Bipolaris/Drechslera group									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other brown									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes				1	100	20			
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	1+			1+					
Hyphal fragments/m3	< 20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			< 20			20			

Comments: A) No spores detected.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	C	041823-2	5:	041823-26: Classroom 110				
Comments (see below)	(	None	102	A				
Lab ID Version <sup>+</sup> :		15677054	1	15677055 1				
Analysis Data:		04/21/202	2		04/21/202	2		
Analysis Date:		04/21/202	5		04/21/202.	5		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3		
Ascospores								
Basidiospores								
Bipolaris/Drechslera group								
Chaetomium								
Cladosporium								
Curvularia								
Epicoccum	1	100	20					
Fusarium								
Myrothecium								
Nigrospora								
Other brown								
Other colorless								
Penicillium/Aspergillus types†								
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+) <sup>††</sup>	2+			1+				
Hyphal fragments/m3	< 20			< 20				
Pollen/m3	< 20			< 20				
Skin cells (1-4+)	1+			1+				
Sample volume (liters)	50			50				
§ TOTAL SPORES/m3			20			< 20		

Comments: A) No spores detected.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

#### **Eurofins EPK Built Environment Testing, LLC**

3000 Lincoln Drive East, Suite A, Marlton, NJ 08053 (866) 871-1984 www.eurofinsus.com/Built

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap

Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	041823-27: Outdoors - 100 Wing												
Comments (see below)	None												
Lab ID-Version <sup>†</sup> :		15677056-1											
Analysis Date:		04/21/2023											
Thatysis Duce.	row of	% read	spores/m2										
Ascosporas	1 aw ct.	25	240										
Ascospores	5	25	400										
Bipolaris/Drechslera group	J	25	400										
Chaetomium													
Cladosporium	51	25	4 100										
Curvularia	51		1,100										
Epicoccum	1	100	20										
Fusarium													
Myrothecium													
Nigrospora													
Other brown													
Other colorless													
Penicillium/Aspergillus types†													
Pithomyces													
Rusts													
Smuts, Periconia, Myxomycetes	1	100	20										
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													
Zygomycetes													
Background debris (1-4+) <sup>††</sup>	1+												
Hyphal fragments/m3	40												
Pollen/m3	40												
Skin cells (1-4+)	<1+												
Sample volume (liters)	50												
§ TOTAL SPORES/m3			4,800										

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

## MoldRANGE<sup>TM</sup>, Local Climate; Extended Outdoor Comparison

### Outdoor Location: 041823-01, outdoors - woodland - main entrance

Fungi Identified	Outdoor		Typica	l Outd	oor Da	ata for	:	Typical Outdoor Data for:						
	data		April in Central <sup>†</sup>						The entire year in Central <sup>†</sup>					
		A Annu	A Annual Temp, B Elev., B Rain, A Temp, Range A						A Annual Temp, B Elev., B Rain, A Temp. Range					
			1	(n‡=	605)				1	(n‡=	8577)	1	e	
Project zip code 60606	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %	
Generally able to grow indoors*														
Alternaria	-	7	13	13	27	53	22	13	13	53	160	280	52	
Bipolaris/Drechslera group	-	-	-	-	-	-	2	7	7	13	27	40	7	
Chaetomium	-	-	-	-	-	-	3	7	7	13	20	40	4	
Cladosporium	80	53	53	210	640	1,200	73	53	110	590	2,200	4,100	85	
Curvularia	-	-	-	-	-	-	1	7	7	13	40	53	10	
Epicoccum	-	7	13	13	40	53	18	7	13	27	80	150	39	
Nigrospora	-	7	7	7	13	53	3	7	13	13	53	93	19	
Other brown	-	7	7	13	40	53	10	7	7	13	29	53	11	
Penicillium/Aspergillus types	320	27	53	110	270	440	35	53	53	130	400	670	40	
Pithomyces	-	-	-	-	-	-	1	7	13	27	57	110	23	
Stachybotrys	-	-	-	-	-	-	< 1	7	11	13	59	110	1	
Torula	-	-	-	-	-	-	1	7	7	13	46	67	6	
Seldom found growing indoors**														
Ascospores	80	53	53	160	510	960	62	53	110	430	1,500	2,800	75	
Basidiospores	160	53	53	210	800	1,500	80	53	160	910	3,700	6,700	88	
Rusts	-	-	-	-	-	-	3	8	13	27	93	170	28	
Smuts, Periconia, Myxomycetes	-	7	13	20	40	67	22	13	13	40	120	210	50	
§ TOTAL SPORES/m3	640													

<sup>1</sup>EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE<sup>™</sup> Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE<sup>™</sup> reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

<sup>†</sup>The Typical Outdoor Data represents the typical outdoor spore levels across the region's group of states for the time period and EMLab Regional Climate code indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically and if not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

‡ n is the sample size used to calculate the MoldRANGE<sup>TM</sup> Local Climate data summarized in the table.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### MoldRANGE<sup>™</sup>, Local Climate; Extended Outdoor Comparison Outdoor Location: 041823-11, Outdoors - 800 Wing

Fungi Identified	Outdoor		Туріса	l Outd	oor Da	ata for:	:	Typical Outdoor Data for:					
	data		EMLab	April in	Central	a aadal			The	entire ye	ar in Cen	tral†	
		A Annu	al Temp	, B Elev.	, B Rain	, A Temp	. Range	A Annu	al Temp	, B Elev.	, B Rain,	A Temp	. Range
			-	(n‡=	:605)	_	-			(n‡=	8577)		-
Project zip code 60606	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	13	27	53	22	13	13	53	160	280	52
Bipolaris/Drechslera group	-	-	-	-	-	-	2	7	7	13	27	40	7
Chaetomium	-	-	-	-	-	-	3	7	7	13	20	40	4
Cladosporium	-	53	53	210	640	1,200	73	53	110	590	2,200	4,100	85
Curvularia	-	-	-	-	-	-	1	7	7	13	40	53	10
Epicoccum	-	7	13	13	40	53	18	7	13	27	80	150	39
Nigrospora	-	7	7	7	13	53	3	7	13	13	53	93	19
Other brown	-	7	7	13	40	53	10	7	7	13	29	53	11
Penicillium/Aspergillus types	-	27	53	110	270	440	35	53	53	130	400	670	40
Pithomyces	20	-	-	-	-	-	1	7	13	27	57	110	23
Stachybotrys	-	-	-	-	-	-	< 1	7	11	13	59	110	1
Torula	-	-	-	-	-	-	1	7	7	13	46	67	6
Seldom found growing indoors**													
Ascospores	160	53	53	160	510	960	62	53	110	430	1,500	2,800	75
Basidiospores	240	53	53	210	800	1,500	80	53	160	910	3,700	6,700	88
Rusts	-	-	-	-	-	-	3	8	13	27	93	170	28
Smuts, Periconia, Myxomycetes	20	7	13	20	40	67	22	13	13	40	120	210	50
§ TOTAL SPORES/m3	440												

<sup>1</sup>EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE<sup>™</sup> Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE<sup>™</sup> reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

<sup>†</sup>The Typical Outdoor Data represents the typical outdoor spore levels across the region's group of states for the time period and EMLab Regional Climate code indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically and if not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

‡ n is the sample size used to calculate the MoldRANGE<sup>TM</sup> Local Climate data summarized in the table.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### MoldRANGE<sup>™</sup>, Local Climate; Extended Outdoor Comparison Outdoor Location: 041823-22, Outdoors - 200 Wing

Fungi Identified	Outdoor		Туріса	l Outd	oor Da	ata for	:	Typical Outdoor Data for:					
_	data	April in Central <sup>†</sup>						The entire year in Central <sup>†</sup>					
		A Annu	al Temp.	, B Elev.	, B Rain	, A Temp	o. Range	A Annu	al Temp	, B Elev.	., B Rain,	A Temp	. Range
			_	(n‡=	:605)		_		_	(n‡=	8577)		_
Project zip code 60606	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	13	27	53	22	13	13	53	160	280	52
Bipolaris/Drechslera group	-	-	-	-	-	-	2	7	7	13	27	40	7
Chaetomium	-	-	-	-	-	-	3	7	7	13	20	40	4
Cladosporium	80	53	53	210	640	1,200	73	53	110	590	2,200	4,100	85
Curvularia	-	-	-	-	-	-	1	7	7	13	40	53	10
Epicoccum	-	7	13	13	40	53	18	7	13	27	80	150	39
Nigrospora	-	7	7	7	13	53	3	7	13	13	53	93	19
Other brown	-	7	7	13	40	53	10	7	7	13	29	53	11
Penicillium/Aspergillus types	-	27	53	110	270	440	35	53	53	130	400	670	40
Pithomyces	-	-	-	-	-	-	1	7	13	27	57	110	23
Stachybotrys	-	-	-	-	-	-	< 1	7	11	13	59	110	1
Torula	-	-	-	-	-	-	1	7	7	13	46	67	6
Seldom found growing indoors**													
Ascospores	-	53	53	160	510	960	62	53	110	430	1,500	2,800	75
Basidiospores	160	53	53	210	800	1,500	80	53	160	910	3,700	6,700	88
Rusts	-	-	-	-	-	-	3	8	13	27	93	170	28
Smuts, Periconia, Myxomycetes	-	7	13	20	40	67	22	13	13	40	120	210	50
§ TOTAL SPORES/m3	240												

<sup>1</sup>EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE<sup>™</sup> Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE<sup>™</sup> reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

<sup>†</sup>The Typical Outdoor Data represents the typical outdoor spore levels across the region's group of states for the time period and EMLab Regional Climate code indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically and if not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

‡ n is the sample size used to calculate the MoldRANGE<sup>TM</sup> Local Climate data summarized in the table.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### MoldRANGE<sup>™</sup>, Local Climate; Extended Outdoor Comparison Outdoor Location: 041823-27, Outdoors - 100 Wing

Fungi Identified	Outdoor		Туріса	l Outd	oor Da	ata for	:	Typical Outdoor Data for:					
	data	April in Central <sup>†</sup>							The	entire ye	ar in Cer	itral†	
		A Annu	al Temp	, B Elev.	, B Rain	, A Temp	o. Range	A Annu	al Temp	, B Elev.	., B Rain,	A Temp	. Range
			-	(n‡=	:605)	_	_			(n‡=	8577)		_
Project zip code 60606	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	13	27	53	22	13	13	53	160	280	52
Bipolaris/Drechslera group	-	-	-	-	-	-	2	7	7	13	27	40	7
Chaetomium	-	-	-	-	-	-	3	7	7	13	20	40	4
Cladosporium	4,100	53	53	210	640	1,200	73	53	110	590	2,200	4,100	85
Curvularia	-	-	-	-	-	-	1	7	7	13	40	53	10
Epicoccum	20	7	13	13	40	53	18	7	13	27	80	150	39
Nigrospora	-	7	7	7	13	53	3	7	13	13	53	93	19
Other brown	-	7	7	13	40	53	10	7	7	13	29	53	11
Penicillium/Aspergillus types	-	27	53	110	270	440	35	53	53	130	400	670	40
Pithomyces	-	-	-	-	-	-	1	7	13	27	57	110	23
Stachybotrys	-	-	-	-	-	-	< 1	7	11	13	59	110	1
Torula	-	-	-	-	-	-	1	7	7	13	46	67	6
Seldom found growing indoors**													
Ascospores	240	53	53	160	510	960	62	53	110	430	1,500	2,800	75
Basidiospores	400	53	53	210	800	1,500	80	53	160	910	3,700	6,700	88
Rusts	-	-	-	-	-	-	3	8	13	27	93	170	28
Smuts, Periconia, Myxomycetes	20	7	13	20	40	67	22	13	13	40	120	210	50
§ TOTAL SPORES/m3	4,800												

<sup>1</sup>EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE<sup>™</sup> Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE<sup>™</sup> reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

<sup>†</sup>The Typical Outdoor Data represents the typical outdoor spore levels across the region's group of states for the time period and EMLab Regional Climate code indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically and if not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

‡ n is the sample size used to calculate the MoldRANGE<sup>TM</sup> Local Climate data summarized in the table.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

#### Eurofins EPK Built Environment Testing, LLC

3000 Lincoln Drive East, Suite A, Marlton, NJ 08053 (866) 871-1984 www.eurofinsus.com/Built

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 16900; Spore Trap Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### **Understanding EMLab Regional Climate Codes**

Outdoor airborne spore concentrations are strongly influenced by climate and weather patterns, often resulting in pronounced seasonal and diurnal cycles (Burge 1995). The seasonal climatic changes directly affect the growth cycle of plants, thereby influencing fungal growth, spore maturation, and release cycles. By evaluating outdoor spore concentrations across similar climatic zones rather than for the state as a whole, it is possible to provide a more representative estimate of typical outdoor spore levels and frequency of occurrence for different airborne fungal spore types in a given area.

The EMLab Regional Climate code system is a novel classification system that uses data from the NOAA - National Oceanic and Atmospheric Administration database to define unique climate zones. The following climate variables, for each regional zip code, are obtained from NOAA and assigned a letter code of A (above the regional average for that variable) or B (below the regional average for that variable):

- 1. Annual High Temperature
- 2. Elevation
- 3. Rainfall/Precipitation
- 4. Monthly Temperature Range

The result is a 4-character code assigned to each statewide zip code, referred to as the Regional Climate Code. Below are some examples of decoded Regional Climate Codes:

**AAAA** = Above avg. Annual High Temperature, Above avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range **AABB** = Above avg. Annual High Temperature, Above avg. Elevation, Below avg. Rainfall/Precipitation, Below avg. Monthly Temperature Range **BBAA** = Below avg. Annual High Temperature, Below avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range

The actual outdoor air sample data from matching regional climate codes in each group of states are then compiled in a manner relating typical spore concentrations and frequency of occurrence.

## The data presented in this report is from the Central Region which includes the states of: IL, IN, KY, MO, OH, TN, and WV

The NOAA regional climate variables were selected by mapping data points from a subset of approximately 145,000 weather and geographic database entries to over 80,000 outdoor spore trap samples with known zip codes and assessing them using orthogonal array experimental design techniques. The results were then compared to the typical ranges of spore types found when grouping zip codes using the Koppen-Geiger climatic classification system; a commonly used climatic system that provides an objective numerical definition in terms of climatic elements such as temperature, rainfall, and other seasonal characteristics . The EMLab Regional Climate codes showed improved granularity and refinement of the zip code groupings, implying a better representation of the expected range of spore types to be found within an individual zip code.

The values on this report were calculated by obtaining the four variables listed above from the over 585 million data points of weather and geographic information available in the NOAA database, and determining the frequencies and percentile values of spore types by utilizing over 180,000 Eurofins EMLab P&K outdoor spore trap samples with known zip codes.

This report groups regional zip codes in relation to these EMLab Regional Climate codes and summarizes MoldRANGE<sup>™</sup> data by month and year within each EMLab Regional Climate code.

#### **References:**

Burge, Harriet, A. Bioaerosols: Boca Raton: Lewis Publishers, pp. 163-171, 1995.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Eurofins EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Eurofins EMLab P&K may not have received and tested a representative number of samples for every region or time period. Eurofins EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3235496, Page 5 of 6 U.S. Patent No. 10,387,458

#### **Eurofins EPK Built Environment Testing, LLC**

3000 Lincoln Drive East, Suite A, Marlton, NJ 08053 (866) 871-1984 www.eurofinsus.com/Built

Client: Ramboll US Corporation: Illinois Date of Sampling: 04-18-2023 Date of Receipt: 04-20-2023 Date of Report: 04-21-2023

#### **About Your New MoldRANGE Local Climate Report:**

#### Why am I receiving this report?

C/O: Mr. Scott Fountain Re: 16900; Spore Trap

The MoldRANGE Local Climate Report is a new supplemental report that contains more specific outdoor reference information for your area. We want you to see this new report so you can decide if it would be a useful tool for your investigations. Eurofins EMLab P&K is the only laboratory that equips you with scientifically-developed and statistically accurate tools like this new report for your mold investigations.

#### What does this report tell me?

Since the climate and outside spore distribution across even a single state may vary depending upon your location, this report breaks data from states with similar climates into smaller groupings (called EMLab Regional Climate codes) based upon climate data from the NOAA National Climatic Data Center. The spore type data comes from Eurofins EMLab P&K's unparalleled database of over 350,000 spore trap samples. We evaluated each grouping and displayed the typical frequency and counts of a given spore type within that EMLab Regional Climate code. This gives you a point of reference for the number and types of spores usually present in the outdoor air in your area across the month of sampling and the entire year.

#### What is the cost of this new report?

There is none. MoldRANGE Local Climate is offered as free supplement to Eurofins EMLab P&K clients.

#### What if I am happy with my existing report preferences and do not wish to receive this report in the future?

Simply contact your Project Manager or email us at EBET.customerservice@et.eurofinsus.com and let us know. We can reset your preferences so that you continue to receive your typical report formats instead.


#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3235496, Page 1



Basidiospores Cladosporium Other brown Smuts, Periconia, Myxomycetes

#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



Bipolaris/Drechslera group Epicoccum

**Comments:** A) No spores detected.

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3235496, Page 4

Basidiospores Cladosporium Epicoccum Other brown Pithomyces Smuts, Periconia, Myxomycetes 4,000 3,750 3,500 3,250 3,000 Calculated Count: spores/m3 2,750 2,500 2,250 2,000 1,750 1,500 1,250 1,000 750 500 250 0 041823-17 041823-18 041823-19 041823-20

#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



Basidiospores Cladosporium Smuts, Periconia, Myxomycetes

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3235496, Page 6

**Comments:** A) No spores detected.



Comments: A) No spores detected.

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3235496, Page 7

CHAIN www.em	OF CUSTODY	EM	Lab P	&K	Weather Fog	Rain 0.032354	96				-	REC	UE	STE	D S	FR	VICE					
		'A TestA	merica Cor	mpany	None		~					(U	se cl	neck	box	es be	iow)					
New Jersey: 3	3000 Lincoln Drive East, Suite A, Ma	arlton, NJ 08053 * (86	6) 871-1984		Moderate			on-Ci	Itura	ble	-			Cultu	rable				Г			-
San Bruno, C	A: 1150 Bayhill Drive, #100. San Br	:, AZ 85027 * (800) 65 runo: CA 94066 * (866	1-4802		Heavy		Sp	ore	Swi	be ab	Bio	Cass	ette™	, And	lerse	n, SA	S, Sw	ab,	0	her Re	quest	ŝ
		and, 04104000 [000	1 000-0000				1	ap T	Bu	IR		ater, E	UIK, L	iust, s	Soll, (	Corta	ot Plat	00				1
		CONTA	CT INFORMA	TION			1												6			
Company:	Rangboll	A	ddress: 333 (2)	Walk	- Dive Uli	+ (	1							ja					H 740			
Contact:	Sull (The Law	S	pecial Instructions:	10001	and Mia	50, 12 60606	11							acte					losi	-116		
Phone:	200-200-1207	. Se	ud results	to: S	Fountainp rac	nboll. com					() dds	() (		ace B					ount (N	0/R-93		
l_	PROJECT INFO	RMATION					11			_	SD.	s, cp	spp.	Sur		nce)			er C	09 p		
Project ID:	I HOULOT INTO	A MATION			URN AROUND TIN	E CODES (TAT)		rticle	ative)	Evan	+0	4 + 0 + 4 + 0	Asp.	Air 8		Abse	nism		le Fib	netho		
Project 15.	10400			STD -	Standard (DEFAULT)	Rushes received after 2	.02	E E	Dualit	lirect	Uns	Suns I		rable		ence	/ OUD	Lines U	rbor	PA		
Description:				ND - Ne	ext Business Day	pm or on weekends, will be	nalys	Oth	am ((	unt D	Ce	3	Senus	E S		Pres	pecify	Scree	AMO	LM (B		
Project Zip Code:		Sampling Date & Time: 4	110/23	SD - Sa	ime Business Day Rush	next business day. Please	Irap A	alysis -	Pic EX	ore Co	e Fung	e Fung	) iBun	ounts	μ	coli	tion (s	wage	is – P(	1	÷	
PO Number:		Sampled By: SF		WH - W	/eekend / Holiday	weekend analysis needs.	Spore .	ap Ani	crosco	five Sp	Surfao	Surfac	e Air F	in & C	a cultu	form, h	e Filtra <sup>t</sup> oria (e	y Se	Analys	Analys	cify tes	
Sample ID	Description		Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)	Fungi –	Spore Tr	Direct M	Quantita	1-Media	z-media 3-Media	Culturabl	Gram Sta	legionell	otal Col	Aembran	DuantiTra	sbestos	sbestos	CR (spe	
011823-01	outdoors - woodla	rd Entrance	ST	STD	50 Liters	4300 8	1Z															-
041823-02	CLASSION 600		ST '	STO	504																	4
044823-05	CLESSFOOM Le12		St	STD	SOL			Ē				Ť	H				쁥	18	믐			4
041923-04	acssroom 708	1	ST	STD	SOL		R	Ē	n.								╬	#H		븕		4
041823.05	Class500 n 714		ST	STD	SOL		R/				1	1F		H			非	造	븜	늵		4
a41623-de	CLASSIOOM got BOY	(	ST	STO	506		反				井		H	븕			非	붊	븜	늵	井	4
0(1823-07	CLASSTOOM BIY		ST	STD	50L		成			٦ŀ	i,		h				非는	뿖	늼	井		
041823-08	Classion 818		Śt	STD	SOL		Ø			٦ľ	ᆊ			H	늼		非는	出	늼	븱		4.
641823.09	Classroom 816		ST	STO	SOL		1				T					井	╬	뿖	님	븱		
041823-66	CLASSPOOM BIZ		ST	570	592		國				Tr					井	쁥	造	븜	井분		
04/823-11	Outdoors - BOO Low	1.9	ST.	STD	SOL	45.2°	Ø			5			h			井누		造	븕		非	

	SAMPLE TYPE CODES		and the second se	RELINGUISHED BY			
BC – BioCassette ™	ST - Spore Trap: Zefon,	T – Tape	D - Dust	A	DATE & TIME	RECEIVED BY	DATE & TIME
A1S – Anderson	Allergenco, Burkard	SW - Swab	SO - Soil	whente it	21/10/07	11PA	1120122
SAS - Surface Air Sampler	P - Potable Water	B - Bulk		Munda	9/18/25	MFO	4120123
CP - Contact Plate	NP - Non-Potable Water	O Other:				Fx	9.45
		States in the state of the product of the state of the st	and the second			· (`	(175)

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.html

Copyright @ 2002-2013 EMLab P&K

CHAIN ( www.emi	OF CUSTODY LabPK.com	A TestA	L <b>ab P{</b> merica Com	<b>&amp;K</b> Ipany	Weather Fog	Rain Snow Wind Clear						RE(	QUE Jse (	STI	ED S	SER es be	VICE elow)	ŝ				
New Jersey: 3 Phoenix, AZ: 1 San Bruno, C/	3000 Lincoln Drive East, Suite A, Ma 1501 West Knudsen drive, Phoenix, <del>A: 1150 Bayhill Drive, #100, San Br</del>	arlton, NJ 08053 * (86 , AZ 85027 * (800) 65 uno, CA 940 <del>08 * (866</del>	6) 871-1984 1-4802 <del>) 888-6653</del>		Moderate Heavy		Sp Tr	on-Cu ore ap	Tap Swa Bu	ble be ab Ik	Bic	oCasi ater,	sette ' Bulk,	Cult , Ar Dust,	urable derse Soil,	en, SA Corta	IS, Sw Ict Pla	rab, ites		Other F	teques	fs
		CONTA	CT INFORMA	TION															1007	(nn+		
Company:	Remboll	Ad	ddress: 333 سنة .	Wack	es Drive Chica	ca Il bound	1							teria (					7 HOV	(9)		
Contact:	Scott Fountain	S	pecial Instructions:		line, courte	10,-0 00000	1				_	_		Bac					JIN/ +	1-63-1		
Phone:	309-287-1397	. L	ent results	h: spo	nuntrin Crumb	su, com					. spp.	c spp.	. spp.	pp.)		8			S.	1009		
	PROJECT INFO	RMATION		Т	URN AROUND TIM	E CODES (TAT)	╢	licles	(ive)	max	+ Asp	+ Asp	+ Asp	Alp 2	2 2	Absen	nism):	+		nethod	$\vdash$	$\vdash$
Project ID:				STD -	Standard (DEFAULT)	Pusher received offer 2	1.	ar part	Jualita	lirect E	nus ID	di snu	uns II	rahla		ence/	y orga	nism):	BI	EPAr		
Project Description:				ND - Ne	ext Business Day	pm or on weekends, will be	Inalvsi	- B	cam (C	ount D	gi (Ge	gi (Ge	gi (Ge	Genu		i (Pres	specif	y orga	a DCIA	PLM		
Project Zin Code:		Sampling	1118123	SD - Sa	ime Business Day Rush	next business day. Please	Trap A	elysis.	pic E	ore C	a Fun	8 Fun	S Fu	-ungi	ell	E. col	ation	(specif	ewag	Vsis -	set):	
PO Number:		Sampled By: 54		WH-W	/eekend / Holiday	alert us in advance of weekend analysis needs.	Spore	Trap An	Microsot	ative Sp	a Surfac	a Surfac	a Surfac	ble Air P	ella culti	oliform,	ane Filtr	acteria	Iray - J	os Anal os Anal	pecify ts	
Sample ID	Description	1	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)	Funai	Spore	Direct	Quanti	1-Medi	2-Medi	3-Medi	Cultura	Legion	Total C	Membr	MPN B	UUBITU A sharet	Asbest	PCR (s	
041923-12	Learning Center	511	ST	STD	SDL		ĺ2												זכ			
041022-13	Classmon 504		CT '	510	501		Hŕ							ЭE	10			ЭE	316	HE		
041823-14	Middle School Ca	reteria	ST	STD	506		Q.												ם ב			
091823-13	Band Bon 402		ST	STD	502		R															
041823-16	Middle School Gyi	м	ST	STD	SOL														][			
041823-17	Middle Sphool Comp	etition Gym	ST	STD	SOL		1X															
041823-18	Elencatury school	aym (such)	ST	CTD	50 L		Ø															
041823-19	Elementary School	Gym (north)	ST	STO	SOL		R															
041823-20	General Music 300		ST	STD	SOL		K														1	
641023-21	Learning center 3	19	ST	STD	506		Ø															
041023-20	2 Outdoors - 200 w	11~9	57	STD	501		Ŕ															

	SAMPLE TYPE CODES			RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
BC – BioCassette ™	ST - Spore Trap: Zefon,	T – Tape	D – Dust	A		1100	11/2 /22
A1S - Anderson	Allergenco, Burkard	SW - Swab	SO - Soil	Sutt of t	4/18123	1710	9/20/23
SAS - Surface Air Sampler	P - Potable Water	B – Buik		() ~ ~ ~	10100	Ev	DUCE
CP Contact Plate	NP - Non-Potable Water	0 - Other:				FX	9:45

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.html

Copyright © 2002-2013 EMLab P&K

CHAIN ( www.EMI New Jersey: 3 Phoenix, AZ: 1 Sen Bruno, CA	OF CUSTODY LabPK.com	EN A Tes arlton, NJ 08053 * (, AZ 85027 * (800) runo, CA 94008 * (	<b>1Lab Pa</b> (866) 871-1984 ) 651-4802 866) 888-6653	8.K npany	Weather Fog   None Image: Constraint of the second s	Rain     Snow     Wind	Clear	Non- Spore Trap	Cultu T S	rable ape wab Bulk	E	RE BioCas	EQU (Use ssette , But	Ci che Ci a™,/	TED ocklor ultura Ande st, So	) SE oxes ble rsen, xII, Co	SAS,	CES w) Swat	), 3	Oth	ner Re	quest	3
		CON	TACT INFORMA	TION		and the second														ô			
Company:	2 Rhyboll		Address: 333 W	. wack	Les Pr. daica	ca to bolon									Bria					SH 74(	6		
Contact:	Scott Fountry		Special Instructions:	p e n en	C	50,72 0000	-								Bact					(NIOS	93-116		
Phone: 3	109-237-1397		send results	to: s	tountainGrai	uboll.com					spp.)	spp.)	spp.)	í.	urface	-				Count	00/R-{		
	PROJECT INFO	RMATION		Т	URN AROUND TIM	E CODES (TAT)	-		G 14	(au (Bill	+ Asp	+ Asp.	+ Asp.	sp. sp	cr & Si		loserica (ms)		Η	Fiber	thod 6	-	+
Project ID:				STD -	Standard (DEFAULT)				in literal	ect E)	Q Sn	Di Su	ġ sn	D+A	able A	10	nagni	:(ES		bome	PA me		
Project Description:				ND - N	ext Business Day	Rushes received after pm or on weekends, w	er 2 vill be	Analysis		ount Dir	igi (Gen	gi (Gen	gi (Gen	(Genus	(Cultur	Dmpa	Presenter Specify	y organi	Screen	PCM Air	PLM (E)		
Project Zip Code:		Sampling Date & Time:	4/18/23	SD – S	ame Business Day Rush	next business day. Pi	ease	Trap	onio E	Dore O	E Fur	Se Fur	a Fur	Fungi	Sound	8 1	E. cur	specif	ewage	sis -	sis -	st):	
PO Number:		Sampled By:	SF	WH-V	Veekend / Holiday	weekend analysis ne	eds.	Spore	former	ative S	a Surfa	a Surfa	a Surfa	ble Air	tain &	life cult	ne Filt	cteria	ray - S	s Analy	s Anal	ecify te	
Sample ID	Description	1	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH,	. etc.)	Fungi-	Diract A	Quantit	1-Media	2-Media	3-Media	Cultural	Gram S	Legione	Membra	MPN Ba	QuantiT	Asbesto	Asbesto	PCR (sp	
041823-23	OGSSTOOM 210		ST	STD	50L			128 C	10							זר		T					
041023-24	Chassing a. 770		17	STD	500		-	खित	t						-	T	TT	H	H	H			÷
041823-25	CLASSFOOM 102		ST	STD	SOL			M	ЛE							710	16	H	H	H	늼		쉬.
041073-26	Classioon 110		ST	570	506			MI	1E	1					71	Ŧ	計	H	늼	븕	븕		针
041823-27	Outdoors - 100 W	ing	ST	STD	SOL			Ŵ	1							非	詣	님	늼	H	늵		
		~														非	岩	붜	H	븕	늵	井	÷1
																51		日	H	計			1
									1							JE	16	F	F	計	H	F	÷1
									1								市	ħ	=	計	H		÷1
									1								市	T	늵	計			÷[
																							i

	SAMPLE TYPE CODES			RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & THE
BC – BioCassette ™	ST - Spore Trap: Zefon,	T - Tape	D – Dust	0	DATE & TIME	RECEIVED BT	DATE & TIME
A1S - Anderson	Allergenco, Burkard	SW - Swab	SO - Soil	Shutt 1 t	1114123	FHPO	4/25/23
SAS - Surface Air Sampler	P - Potable Water	B – Bulk			9110/23		100
CP Contact Plate	NP - Non-Potable Water	O - Other:				F20	9:45

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.html

Copyright © 2002-2013 EMLab P&K



**Built Environment Testing** 

Report for:

Mr. Scott Fountain Ramboll US Corporation: Illinois 333 W. Wacker Drive, Suite 2700 Chicago, IL 60606

Regarding:

Eurofins EPK Built Environment Testing, LLC Project: 1690030209-001 EML ID: 3248819

Approved by:

Technical Manager Ariunaa Jalsrai

Dates of Analysis: Spore trap analysis: 05-03-2023

Service SOPs: Spore trap analysis (EM-MY-S-1038) AIHA-LAP, LLC accredited service, Lab ID #103005

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested. Information supplied by the client which can affect the validity of results: sample air volume.

Eurofins EPK Built Environment Testing, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Eurofins EPK Built Environment Testing, LLC's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Outdoors-W	050123-0	1: nain Entrance	ce 050123-02: Classroom 708					
Comments (see below)	Outdoors-v	None		Classroom 708					
Lab ID-Version <sup>†</sup> :		15748495-	1		15748496-	1			
Analysis Date:		05/03/202	3		05/03/202	3			
	raw ct	% read	spores/m3	raw cf	% read	spores/m3			
Ascospores	iaw ct.	70 1000	spores/ms		70 1000	spores/1115			
Basidiospores	3	25	240						
Botrytis	5		240						
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types <sup>†</sup>									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	< 1+			1+					
Hyphal fragments/m3	20			20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	< 1+			1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			240			< 20			

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger A$  "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	(	050123-03	3: 71 <i>4</i>	050123-04: Classroom 804						
Comments (see below)		A	/14	Classroom 804 None						
Lab ID-Version <sup>†</sup>		15748497-	1		15748498-	1				
Analysis Date:		05/03/202	3		05/03/202	3				
	row of	% read	spores/m3	raw ct	% read	spores/m3				
Ascospores		70 1044	spores/115	Taw Ct.	70 1000	spores/1115				
Basidiospores										
Botrytis										
Chaetomium										
Cladosporium				1	25	80				
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Other colorless										
Penicillium/Aspergillus types <sup>†</sup>										
Pithomyces										
Rusts										
Smuts, Periconia, Myxomycetes										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Zygomycetes										
Background debris (1-4+) <sup>††</sup>	1+			1+						
Hyphal fragments/m3	< 20			< 20						
Pollen/m3	< 20			< 20						
Skin cells (1-4+)	1+			1+						
Sample volume (liters)	50			50						
§ TOTAL SPORES/m3			< 20			80				

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	C	050123-0 Classroom	5: 818	050123-06: Classroom 814					
Comments (see below)		None			А				
Lab ID-Version‡:		15748499-	-1		15748500-	1			
Analysis Date:		05/03/202	3		05/03/202	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores									
Basidiospores	1	25	80						
Botrytis									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+)††	1+			1+					
Hyphal fragments/m3	< 20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			80			< 20			

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	C	050123-07	7:	(	8:			
Comments (see below)	C	None	510	(	A	512		
Lab ID-Version <sup>+</sup> :		157/8501_	.1		157/8502	.1		
Analysis Data:		05/02/202	2		05/02/202	2		
Allarysis Date.		03/03/202	5		05/05/202	5		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3		
Ascospores		25						
Basidiospores	1	25	80					
Botrytis								
Chaetomium								
Cladosporium								
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types <sup>†</sup>								
Pithomyces								
Rusts	1	100	20					
Smuts, Periconia, Myxomycetes	1	100	20					
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+) <sup>††</sup>	2+			2+				
Hyphal fragments/m3	20			< 20				
Pollen/m3	< 20			< 20				
Skin cells (1-4+)	2+			2+				
Sample volume (liters)	50			50				
§ TOTAL SPORES/m3			120	>0 <2				

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger A$  "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		050123-09	9:	050123-10: Classroom 600						
	Out	doors - 800	) wing	Classroom 600 None						
Comments (see below)		None		None 15748504-1						
Lab ID-Version <sup>‡</sup> :		15748503-	1		15748504-	1				
Analysis Date:		05/03/202	3		05/03/202	3				
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3				
Ascospores	7	25	560							
Basidiospores	9	25	720	1	25	80				
Botrytis										
Chaetomium										
Cladosporium	2	25	160							
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Other colorless										
Penicillium/Aspergillus types†				1	25	80				
Pithomyces										
Rusts										
Smuts, Periconia, Myxomycetes										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Zygomycetes										
Background debris (1-4+)††	1+			2+						
Hyphal fragments/m3	20			< 20						
Pollen/m3	< 20			< 20						
Skin cells (1-4+)	1+			2+						
Sample volume (liters)	50			50						
§ TOTAL SPORES/m3			1,400			160				

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	C	050123-1 Classroom (	1: 512	Lea	050123-12 rning Cent	2: er 511
Comments (see below)		None	-		A	
Lab ID-Version <sup>‡</sup> :		15748505-	1		15748506-	1
Analysis Date:		05/03/202	3		05/03/202	3
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Ascospores			-			
Basidiospores	2	25	160			
Botrytis						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types <sup>†</sup>	1	25	80			
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+			1+		
Hyphal fragments/m3	20			< 20		
Pollen/m3	20			< 20		
Skin cells (1-4+)	2+			1+		
Sample volume (liters)	50			50		
§ TOTAL SPORES/m3			240			< 20

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	C	050123-13	3:	050123-14: Middle School Cafeteria				
Comments (see below)	(	None	504	Iviidu	None			
Lab ID-Version <sup>†</sup> :		15748507-	.1	15748508-1				
Analysis Date:		05/03/202	3	05/02/2022				
Anarysis Date.		05/05/202	<u> </u>		05/05/202.			
<b>A</b>	raw ct.	% leau	spores/m5	raw cl.	% Teau 25	spores/m5		
Ascospores	2	25	1.0	1	25	80		
Basidiospores	2	23	160	4	23	320		
Botrytis								
Chaetomium	1	25	00					
	I	25	80					
Curvularia		100	20					
Epicoccum	1	100	20					
Fusarium								
Myrothecium								
Nigrospora								
Other colorless					27			
Penicillium/Aspergillus types†				4	25	320		
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+) <sup>††</sup>	2+			2+				
Hyphal fragments/m3	< 20			80				
Pollen/m3	40			20				
Skin cells (1-4+)	2+			2+				
Sample volume (liters)	50			50				
§ TOTAL SPORES/m3			260			720		

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	В	050123-15 and Room	5: 402	050123-16: Middle School Gym					
Comments (see below)		None			А				
Lab ID-Version‡:		15748509-	1	15748510-1					
Analysis Date:		05/03/202	3		05/03/202	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores									
Basidiospores	2	25	160						
Botrytis									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+)††	2+			2+					
Hyphal fragments/m3	< 20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	2+			1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			160			< 20			

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		050123-1	7:	050123-18:					
	Middle Sc	hool Comp	petition Gym	Elementar	Elementary School Gym (South)				
Comments (see below)		None			None				
Lab ID-Version <sup>‡</sup> :		15748511-	1	15748512-1					
Analysis Date:		05/03/202	3		05/03/202	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores									
Basidiospores	3	25	240	1	25	80			
Botrytis									
Chaetomium									
Cladosporium	1	25	80						
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types <sup>†</sup>	2	25	160						
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+)††	2+			2+					
Hyphal fragments/m3	40			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			2+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			480			80			

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	El anna a tar	050123-1	9: Serve (Newsth)	050123-20: Conorol Music 200				
Comments (see helow)	Elementar	y School (	Jym (North)	Ge	None	c 300		
		15740510	1					
Lab ID-Version <sup>‡</sup> :		15748513-	·I		15748514-	1		
Analysis Date:		05/03/202	3		05/03/202	3		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3		
Ascospores								
Basidiospores	1	25	80	2	25	160		
Botrytis								
Chaetomium								
Cladosporium				1	25	80		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types <sup>†</sup>								
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+			3+				
Hyphal fragments/m3	< 20			< 20				
Pollen/m3	20			< 20				
Skin cells (1-4+)	2+			3+				
Sample volume (liters)	50			50				
§ TOTAL SPORES/m3			80			240		

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Ge	050123-2 neral Musi	1: c 319	050123-22: Outdoors - 200 wing					
Comments (see below)		None	• • • • •		None				
Lab ID-Version <sup>‡</sup> :		15748515-	1	15748516-1					
Analysis Date:		05/03/202	3		05/03/202	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores			-	4	25	320			
Basidiospores	1	25	80	6	25	480			
Botrytis									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types†	1	25	80						
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+)††	1+			1+					
Hyphal fragments/m3	20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			1+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			160			800			

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		050123-23	3:	050123-24:					
		lassroom 2	210	(	lassroom 2	220			
Comments (see below)		None		INOIRE					
Lab ID-Version <sup>‡</sup> :		15748517-	1	15748518-1					
Analysis Date:		05/03/202	3		05/03/202	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores									
Basidiospores	1	25	80	1	25	80			
Botrytis									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types <sup>†</sup>				1	25	80			
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+) <sup>††</sup>	1+			2+					
Hyphal fragments/m3	< 20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			2+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			80			160			

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	(	050123-25 Classroom	5: 102	050123-26: Classroom - 110					
Comments (see below)		A		0	None	110			
Lab ID-Version <sup>‡</sup> :		15748519-	1	15748520-1					
Analysis Date:		05/03/2023	3		05/03/2023	3			
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3			
Ascospores			-						
Basidiospores				2	25	160			
Botrytis									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Other colorless									
Penicillium/Aspergillus types†									
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+)††	1+			2+					
Hyphal fragments/m3	< 20			< 20					
Pollen/m3	< 20			< 20					
Skin cells (1-4+)	1+			2+					
Sample volume (liters)	50			50					
§ TOTAL SPORES/m3			< 20			160			

Comments: A) No spores detected.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger A$  "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	050123-27:										
		Outdoors - 100 wing									
Comments (see below)		None									
Lab ID-Version <sup>‡</sup> :		15748521-1									
Analysis Date:		05/03/2023									
	raw ct.	% read	spores/m3								
Ascospores	2	25	160								
Basidiospores	4	25	320								
Botrytis											
Chaetomium											
Cladosporium											
Curvularia											
Epicoccum											
Fusarium											
Myrothecium											
Nigrospora											
Other colorless											
Penicillium/Aspergillus types†											
Pithomyces											
Rusts											
Smuts, Periconia, Myxomycetes											
Stachybotrys											
Stemphylium											
Torula											
Ulocladium											
Zygomycetes											
Background debris (1-4+)††	1+										
Hyphal fragments/m3	< 20										
Pollen/m3	< 20										
Skin cells (1-4+)	< 1+										
Sample volume (liters)	50										
§ TOTAL SPORES/m3			480								

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m<sup>3</sup> divided by the raw count, expressed in spores/m<sup>3</sup>, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

# MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison

#### **Outdoor Location: 050123-01, Outdoors-Woodland main Entrance**

Fungi Identified	Outdoor	Typical Outdoor Data for:						Typical Outdoor Data for:					
	data		May in	n Illino	is† (n‡:	=4051)		The entire year in Illinois† (n‡=47666)					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	27	67	120	45	13	13	53	170	320	53
Bipolaris/Drechslera group	-	7	7	13	27	53	4	7	7	13	27	47	8
Chaetomium	-	7	7	13	33	110	5	7	7	13	27	67	4
Cladosporium	-	53	120	430	1,500	2,600	86	53	110	640	2,600	4,800	86
Curvularia	-	7	7	13	27	53	2	7	7	13	40	80	11
Epicoccum	-	7	10	13	40	67	25	10	13	27	100	190	42
Nigrospora	-	7	7	13	13	27	5	7	13	20	53	110	20
Penicillium/Aspergillus types	-	27	53	110	270	480	33	27	53	110	370	690	42
Stachybotrys	-	7	7	13	40	130	2	7	7	13	53	130	2
Torula	-	7	7	13	40	80	4	7	7	13	47	75	7
Seldom found growing indoors**													
Ascospores	-	80	160	590	2,300	4,300	92	53	110	430	1,600	3,000	76
Basidiospores	240	80	160	640	2,300	4,400	93	53	160	910	3,600	6,500	87
Rusts	-	7	7	13	40	77	9	7	13	27	110	200	29
Smuts, Periconia, Myxomycetes	-	10	13	27	67	130	46	13	13	40	120	210	51
§ TOTAL SPORES/m3	240												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

 $\ddagger$ n = number of samples used to calculate data.

#### Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

#### MoldRANGE<sup>™</sup>: Extended Outdoor Comparison Outdoor Location: 050123-09, Outdoors - 800 wing

Fungi Identified	Outdoor		Typica	l Outo	loor Da	ata for:	:	Typical Outdoor Data for:					
	data	May in Illinois† (n‡=4051)					The entire year in Illinois† (n‡=47666)						
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	27	67	120	45	13	13	53	170	320	53
Bipolaris/Drechslera group	-	7	7	13	27	53	4	7	7	13	27	47	8
Chaetomium	-	7	7	13	33	110	5	7	7	13	27	67	4
Cladosporium	160	53	120	430	1,500	2,600	86	53	110	640	2,600	4,800	86
Curvularia	-	7	7	13	27	53	2	7	7	13	40	80	11
Epicoccum	-	7	10	13	40	67	25	10	13	27	100	190	42
Nigrospora	-	7	7	13	13	27	5	7	13	20	53	110	20
Penicillium/Aspergillus types	-	27	53	110	270	480	33	27	53	110	370	690	42
Stachybotrys	-	7	7	13	40	130	2	7	7	13	53	130	2
Torula	-	7	7	13	40	80	4	7	7	13	47	75	7
Seldom found growing indoors**													
Ascospores	560	80	160	590	2,300	4,300	92	53	110	430	1,600	3,000	76
Basidiospores	720	80	160	640	2,300	4,400	93	53	160	910	3,600	6,500	87
Rusts	-	7	7	13	40	77	9	7	13	27	110	200	29
Smuts, Periconia, Myxomycetes	-	10	13	27	67	130	46	13	13	40	120	210	51
§ TOTAL SPORES/m3	1,400												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

#### $\ddagger$ n = number of samples used to calculate data.

#### Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

### MoldRANGE<sup>™</sup>: Extended Outdoor Comparison Outdoor Location: 050123-22, Outdoors - 200 wing

Fungi Identified	Outdoor	Typical Outdoor Data for:						Typical Outdoor Data for:					
	data		May in	lllino	is† (n‡=	=4051)		The entire year in Illinois† (n‡=47666)					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	27	67	120	45	13	13	53	170	320	53
Bipolaris/Drechslera group	-	7	7	13	27	53	4	7	7	13	27	47	8
Chaetomium	-	7	7	13	33	110	5	7	7	13	27	67	4
Cladosporium	-	53	120	430	1,500	2,600	86	53	110	640	2,600	4,800	86
Curvularia	-	7	7	13	27	53	2	7	7	13	40	80	11
Epicoccum	-	7	10	13	40	67	25	10	13	27	100	190	42
Nigrospora	-	7	7	13	13	27	5	7	13	20	53	110	20
Penicillium/Aspergillus types	-	27	53	110	270	480	33	27	53	110	370	690	42
Stachybotrys	-	7	7	13	40	130	2	7	7	13	53	130	2
Torula	-	7	7	13	40	80	4	7	7	13	47	75	7
Seldom found growing indoors**													
Ascospores	320	80	160	590	2,300	4,300	92	53	110	430	1,600	3,000	76
Basidiospores	480	80	160	640	2,300	4,400	93	53	160	910	3,600	6,500	87
Rusts	-	7	7	13	40	77	9	7	13	27	110	200	29
Smuts, Periconia, Myxomycetes	-	10	13	27	67	130	46	13	13	40	120	210	51
§ TOTAL SPORES/m3	800												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

#### $\ddagger n = number of samples used to calculate data.$

#### Client: Ramboll US Corporation: Illinois C/O: Mr. Scott Fountain Re: 1690030209-001

Date of Receipt: 05-03-2023 Date of Report: 05-04-2023

#### MoldRANGE<sup>™</sup>: Extended Outdoor Comparison Outdoor Location: 050123-27, Outdoors - 100 wing

Fungi Identified	Outdoor	Typical Outdoor Data for:						Typical Outdoor Data for:					
	data		May in	lllino	is† (n‡=	=4051)		The entire year in Illinois† (n‡=47666)					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	7	13	27	67	120	45	13	13	53	170	320	53
Bipolaris/Drechslera group	-	7	7	13	27	53	4	7	7	13	27	47	8
Chaetomium	-	7	7	13	33	110	5	7	7	13	27	67	4
Cladosporium	-	53	120	430	1,500	2,600	86	53	110	640	2,600	4,800	86
Curvularia	-	7	7	13	27	53	2	7	7	13	40	80	11
Epicoccum	-	7	10	13	40	67	25	10	13	27	100	190	42
Nigrospora	-	7	7	13	13	27	5	7	13	20	53	110	20
Penicillium/Aspergillus types	-	27	53	110	270	480	33	27	53	110	370	690	42
Stachybotrys	-	7	7	13	40	130	2	7	7	13	53	130	2
Torula	-	7	7	13	40	80	4	7	7	13	47	75	7
Seldom found growing indoors**													
Ascospores	160	80	160	590	2,300	4,300	92	53	110	430	1,600	3,000	76
Basidiospores	320	80	160	640	2,300	4,400	93	53	160	910	3,600	6,500	87
Rusts	-	7	7	13	40	77	9	7	13	27	110	200	29
Smuts, Periconia, Myxomycetes	-	10	13	27	67	130	46	13	13	40	120	210	51
§ TOTAL SPORES/m3	480												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

#### $\ddagger n = number of samples used to calculate data.$



Basidiospores Cladosporium

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

**Comments:** A) No spores detected.

# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



**Comments:** A) No spores detected.

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



**Comments:** A) No spores detected.

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



**Comments:** A) No spores detected.

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC



**Comments:** 

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3248819, Page 6



**Comments:** A) No spores detected.

Note: Graphical output may understate the importance of certain "marker" genera. Eurofins EPK Built Environment Testing, LLC

EMLab ID: 3248819, Page 7
CHAIN C www.EML	DF CUSTODY abPK.com	EMI A TestA	ab Pa	<b>&amp;K</b> Ipany	Weather Fog   None Image: Construction of the second	Rain Snow Wind Clear	No	ECU					2-7-5				Ĩ.	- (-  				
New Jersey: 3000 Lincom Drive East, Suite A, Manton, NJ 0003 * (660) 871-1984     Maddenate     Maddenate     Maddenate     Spece     Spece     Spece     Trap       San Bruno, CA: 1150 Bay/M2 Drive, #100, San Bruto, CA 94066 * (886) 685-6663     685-6663     685-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6663     585-6											'W	ater,	с с Вик,	14451,	7 701)	•••••	Экология			Xher R	equests	3
		CONTA	CT INFORMA				ĺ								1				100			
Company: 6	Zamboll	A	ddress: 3.7.8	مرجعكم ويرور	mar Cal	2700 alexante								liarta 1				ľ	2 fiau			
Contact U	Patt Foundain		pecial Instructions: Web result	40:54	Entaine sants	oll. cam					spp.)	(tdg	spp.)	fare Bar					I WIND	DDIR-90-1		
Phone: A	309-287-(347		some resours the communication and the						-	Ę	₿.	100	9	lids d	3. <b>1</b>	BURNES	ŝ			thod 8		
	PROJECT INFO	RMATION		Т	URN AROUND TIN	IE CODES (TAT)			E E	ЦЩ Б	÷.	Ë,	ė.	×   ×		Cel/Ab	흵	Ť		euos Nationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Salationalista Sa	]	
Project ID:	160030209-001			STD-	Standard (DEFAULT)	Rushes received after 2			В В В В В	Dire	SILLIS	30 MB	۲. ایرا	뙼		Tesen	ŝ	gania				
Project Description:				ND-N	ext Business Day	{ pm or on weskends, will be considered received the	Ē	۱ <u>۵</u>	Ψ.		)) (C					12.38	륄	S S S				
Project Zip Code;		Sempling Date & Time: 5	11/23	SD - Sa	anse Business Day Rush	alert us in advance of	e Trap	stile (	Copic	Sporte	ace Fu	E e E	BCB FU	Eung Callo		U U U	ilfration	a (spec	BN S	anglas tahata	(teet)	
PO Number:		Sampled By:	· ·	WH-Y	feskand / Holiday	weekend analysis needs.	1 2 2 0 3 1	Trap	Micros	lfative !	la Surf	fia Surf	la Suri	able A			rane F	Bacteri	ÀE I	ttos Arl	(specif)	
Sample 10	Descriptio	ß	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)		Spore	Dreed	Ouen(	1-Mec	2-Met	3-Mac			Total	March	NdW		Asber Asber	PCR	
650123-01	Outdoors - Wood	and Main Entra	a st	STO	soutier	42 <sup>#</sup> F	ľ								כ			٥ļ۵	וב			
02123-02	Ros Classroom 7	708 .	ST '	STD	OL!	· · · · · ·	E							⊐Ľ	3 <u>C</u>							
23-03	classroom 714	•	ST	STD	sou	· · · · · · · · · · · · · · · · · · ·	ΙZ	ι							그							
050:23-04	Cluss Room 804		<u>_</u>	STD	501												P					므
050123-05	clussion 818	· · · ·	ST	5.0		• •	Ľ						٩	⊒ ב	<u>]</u> Ė	1			][	_ןר		
058123-06	Classroon 81881	4 seen	<u>ST</u>	573	566												Ι <mark>Π</mark>					
658123-++	clistroom B16		ST	570	562										זוב					<u> -   C</u>		
950122 -08	Classion 912		ST	5-0	SOL :		ľ		<u> </u>					[	. [					]		0.
070123-09	Outlass - 800 un	Leg \	ST	STD	SOL	48.2	Ŕ													⊐∣Ē		
053(23-10)	Classroom 600	2 \	ST	579	SOL		Ø	ļΓ											<u></u> ] [			
55623-4	Classnoom 612	ų -	ST	STO	50L			il							30	בוב						

4

.

.

20

.

 ··· · · · · · · ·								
  · · · · · · · · · · · · · · · · · · ·	SAMPLE TYPE CODES	· · ·		RELINQUISHED BY	DATE & TIME	) RECEIVED BY	DATE & TIME	
BC - BioCassette TM	ST - Spore Trap: Zefon,	T - Tape.	D - Dust	1 AL	10 hors	1/2 5/2/23	•	
A1S - Anderson	Allergenco, Burkard	SW - Swab	90 - Scil	with t	5/1/05	MR SISIU		
SAS - Surface Air Sampler	P - Potable Water	B – Bulk			, , , , , , , , , , , , , , , , , , , ,	The shire	1	
CP - Contact Plate	NP - Non-Potable Water	0-Other:				FA 9:4)		

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.htm/

Copyright @ 2002-2018 EMLab P&K

Doc. #1192 Rev 29 Review64/25/135 Page 1 of 1, GA

 	CHAIN ( www.EM) New Jersey: 3 Phoenix, AZ: 1 Sen Bruno, CA	DF CUSTODY abPK.com 1001.freehr Drive East, Sulle A, 501 West Khudsen drive, Phoer 1150 Bayfull Drive, #100, San	Menitori, NJ 0500 Ibx, AZ 85027*( Bruna, CA 9408	MLa čestAme 53* (856): 87 800) 651-484 8 * (866) 884	12 12 12 14 12 12 12 12 12 12 12 12 12 12 12 12 12	k <b>K</b> pany	Weather Fog None Ught Moderate Heavy	Rain     Snow     M       Image: Constraint of the state	find Clear	<u>Non-C</u> Spore Trap	iltu 7 8. Bulk	-003	- 24 <u>88</u> 1	19			Other f	iequests
	Company: Ranfold Address: 333 () Contact Scold Foundaria Phone: 399-287-1397					TION Lacker Drive, Sile 2300, ances, th					90. spb.)	şo. spp.) spp.)	k Sunface Backeria )	vace)		ber Count (NIOSH 7400) vid Rinnik-33-1181		
· · · ·	Project ID: Project Description: Project Zip Code:	PROJECT INF	ORMATION	e: 5/	/23	TURN AROUND TIM STD - Standard (DBFAULT) ND - Next Business Day SD - Seme Business Day Rush		E CODES ( Rushes recei pm or an week considered re next business afect us in a weekeng ana	TAT) wends, will be ecoived the day. Please dvance of lysis needs.	boore Trap Analysis an Analysis - Other nadrickes	croscopic Even (Qualitative)	Surface Fisingi (Genus ID + As Surface Fisingi (Genus ID + As	Surface Fungi (Genus ID + As e Air Fungi (Génus ID + Asp.	iain & Counts (Culturable Air 8 la coltana	ilorm, E. coll (Presence/Abse ne Filtretion (specify organism	oteria (specity organism): ay Servege Screen	s Adalysis – PCNA Alrhome Fi • Analwele Pt 14 (EPA meth	ecity tast):
	Sample ID	Descript Learning Cente	ion F 571	<u>» م</u> ر ع	ampie Type (Below) ST	TAT (Above)	Total Volume / Area (as applicable) 50 Lo Ros	Nob (Time of day, Te	96 amp, RH, 90%)	Europi - 1			Culturati	Ciam St Ciam St Ciam St Ciam St	Membra Co	Cuentifi Cuentifi	Asheato	
	65173-13 65173-14 65173-15	Classroom 504 Middle School C Band Room 70	ikeng a		ST ST ST	57D 57D	50L 50L											
	055123-17 055123-17 055123-18	Middle School ( Middle School ) Elimentary scho Elimentary school	<u>Senachtis</u> <u>Bl Gym C</u>   Gym Cn	South)	57 57 57 57	570 570 570	SOL SOL		· · · · · · · · · · · ·									
¥	06112-20 056123-7 937113-22	General Music 3 Learning Center 3 Ductoors - 200.	20 19 wing		ST ST ST	579 579 579	512 502 502	50.\$°≠										
··· ·· ·	BC - BioCass A1S - Anderso	SAMPLETY the ™ SI – Spore Tra on Allergenco, Bur	PE CODES	T Tape SW Swab	D – Duet SO – Sali	du	relinguished b met It	r i	DATE &	time 3	1-	-k	RECEIVE	ову 3	/2	3	DATE	<u>STIME</u>
· · ·	SAS - Surface CP - Contact I	Air Sampler   P - Potable Wa Plate   NP - Non-Pota	ter l ble Water (	B - Bulk D - Other:	· · · · ·	<u> </u>	y-					وفر وار و روار		4	54	4		

÷

......

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.html

.

Copyright @ 2002-2013 EMLab P&K

\_\_\_\_

\_\_\_\_\_

Ope. #1182 Rev 28 Revised4/25/133 Page 1 of 1, QA

### CHAIN OF CUSTODY www.EMLabPK.com

le<u>nobel</u>

Late.

309-287-1397

hard 2209-001

Company: Contect:

Phone:

Project ID:

Description:

Project

Project

 $\Sigma$ 

÷.

Zip Code:

PO Number:

Sample ID

\* 056123-23 Classmon 210

25212325 classroom 102

BALS-LG GUSSTOOM - 110

95123-27 Dut 20015 - 100 12100

650123-24 Classroom

New Jersey: 3000 Lincoln Drive East, Sufle A, Mariton; NJ 08053 \* (866) 871-1984 Phoenix, AZ: 1501 West Knudsen drive, Phoenix, AZ 85027 \* (800) 651-4802 San Bruno, CA: 1150 BayMil Drive, #100, San Bruno, CA 94066 \* (865) 888-6653

PROJECT INFORMATION

Description

· · ·

220

Sampling

Date & Time:

Sampled By:



CONTACT INFORMATION

Special Instructions:

5/1/23

Sample Type

(Below)

<u>S</u>+-

tt

ŚΤ

57

ۍ ک

. .: •

SF

Address 333 W. walker, Juite 2702, averyo

STD - Standard (DEFAULT)

SD - Same Business Day Rush

ND - Next Business Day.

WH -- Weekend / Hollday

TAT

(Abova)

STO

STO

570

555

STD

A TestAmerica Company

N	leather	Fog	Rein	Snow	W9nd ;	Clear
Г	None					
	Light	Ĺ	<b>Z</b>			
1	Moderate					
Ľ	Heavy					

	Weather Fog None Ught Moderate Heavy	Rain Snow Wind Clear   12 1 1   12 1 1   12 1 1   13 1 1   14 1 1   15 1 1	- <u>No</u> Spic	n-Cu re ip	ltura Taq Swi Bu		· · ·	· · · · · · · · · · · · · · · · · · ·	00	32	48	81						ner Re	sques	
	r, Juite 2702	, 仏がとない,孝仁 IE CODES (TAT)	-	bantiches	(itsitve)	d Exam	('dds' dsy + Qt)	s 10 + Xsp. spp.)	(D + Asp. spp.)	) + Asp. spp.}	ole Air & Surface Bacteria )		ce/Absence)	ngantsm)t			ome Fiber Count (NIDSH 7400)	A method 600/R-93-116)		
Ne Sa	terxeard (DEFANLT) At Business Day me Business Day Rush Bakend / Hollday Total Volume / Arsa	Rusines received after 2 pm or on weekends, will be considered received the next business day. Please alort us in activance of weekend analysis needs. Notes	ungi - Spore Trap Analysis	ipore Tráp Analysis – Other 🤉	West Microscopic Exam (Qua	kuentitetive Spore Count Dire	-Media Surface Fungl. (Genus	Media Surface Fungi (Genia	-Media Surface Fungi (Genus	aliturable Ayr.Fungi (Genus ID	trem Stain & Counts (Culturat	egionette culture	otal Coliform, E. coll (Presen	lentbrane Filtration (apeorty o	APN Bacteria (specify organis	kianti Fray - Servage Screen	sbeetos Anelysis – PCM Alrb	sbestos Analysis – PLM (EP	CR (specify test):	· .
		(Time of day, temp, RH, etc.)		5				12	Ê								, ∎	۹. ا		<u></u>
	50C/1415	· · · · · · · · · · · · · · · · · · ·	F						ц гп	븕		F		븕	믈			븕	Ē	님
	SOL				D				H	뉩			B					Ē	T	
]	SOL		R																	
	504	48.8%						ņ								□				
				Ò																
							$\square$													
-		· · ·																		
_		· · ·								믜		미								
-										믜		믜								
	<u> </u>	·······	لبا	Ľ		Г	Ш	Ы	النا	ЦI	Ц	Цį	니	Ш	Ы	Ы				Ļ.

		:					•	
		SAMPLE TYPE CODES	· · · · · · · · · · · · · · · · · · ·		RFL NOUISHED, BY	DATE & TIME	REGENCED BY	
	BC – BioCassette ™	ST - Spore Trap: Zefon,	ĩ–Tape	D-Dust			1-12 8-12/17	
• •	AIS - Anderson	Allergenco, Burkerd	SW-Swab	90 - Sol	ANT A T	5/1/22	012 2/3/6/	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
•	5AS - Seriece Air Sampler	P - Potable Water	B – Bulk	1		······································		
	CP - Contact Plate	NP - Non-Potable Water	D-Other:				7.54	

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emiab.com/s/main/serviceterms.html

### Copyright @ 2002-2013 Eli@ab P&K

Doc. #1182 Rev 29 Revteed4/25/133 Page 1 of 1, CA

	~ ~ ~
100 10-2	
and the second s	

• • • •

# INDOOR ENVIRONMENTAL QUAILITY AND MOLD ASSESSMENT LONG GROVE, ILLINOIS

**APPENDIX D** CALIBRATION CERTIFICATE



# **CIH Equipment Company Inc**

1806 South Highland Avenue, Clearwater, FL 33756, USA PH: 727-584-5063, Toll Free: 888-873-2443 Website: https://cihequipment.com



### **CERTIFICATE OF CALIBRATION**

Certificate No. : UNTL/04270/22

Calibrated Date: 09-01-2022

Customer Name & Address	: Ramboll 333 West Wacker Drive Suite. 2700 Chicago, IL 60606	Date of Issue	: 09-01-2022
Received Date	: 08-30-2022	Туре	: 00 Multi-Functional Devices
Calibration Due on (As requested by the customer)	: 09-01-2023	Manufacturer	: TSI
Location	: At Lab	Model Number	: 7575-X
Data Type	: As Left	Serial Number	: 7575X1231009

Work Procedure: 0000h: Multi-Functional

### Reference Equipment(s) used:

Equipment Name	Serial No.	Traceability	Certificate No.	Calibration Due Date
Digital Barometer	192028609		1694796	04-19-2023

#### **Traceability Statement:**

CIH Equipment Company Inc. certifies that the instrument listed above meets or exceeds manufacturing tolerance limits as stated in the referenced test procedure (unless otherwise noted). This instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology. CIH Equipment Company Inc. calibration system is A2LA accredited to ISO/IEC 17025-2017, ANSI/NCSL Z540-1-1994. This report may not be reproduced, except in full, without the written approval CIH Equipment Company Inc. This calibration was done by comparing the unit under test to the listed calibration standards, there was no sampling used in this calibration. The result reported herein apply only to the calibration of the items described above and no limitations of use apply to the calibration unit. A PASS (in tolerance) or FAIL (out of tolerance) result indicates all measured values fall within or outside unmodified limits. The statement of compliance does not take the reported measurement uncertainty into account. In addition, reported uncertainties do not include instabilities due to transportation, usage, passage of time etc.

Technician Name : Robert Backus

fl Bart

Approved By : Rick Whitmer

Pick white

1806 South Highland Ave • Clearwater, FL 33756-1762 • USA • PH: (727) 584-5063 • Toll Free: (888) 873-2443 Website: https://cihequipment.com



z

# CIH Equipment Company Inc

1806 South Highland Avenue, Clearwater, FL 33756, USA PH: 727-584-5063, Toll Free: 888-873-2443 Website: https://cihequipment.com



# **CERTIFICATE OF CALIBRATION**

30.01

0

Certificate No. : UNTL/04270/22 Calibrated Date: 09-01-2022

Result

Pass

### Calibration Results (As Left)

**Barometric Pressure** 

Pressure Calibration D	lata			
Ambient Temperature (°F)	: 77			
Ambient Relative Humidity (%RH)	: 51			
Ambient Barometric Pressure (in.Hg)	: 30.01			
Tolerance (Barometric Pressure)	: 2.0% of Reference Value			
Unit of Measurement (Barometric Pressure)	: in.Hg			
Description	Reference Data	Measured Data	Error (%)	

30.01

1806 South Highland Ave •	Clearwater, FL 33756-1762	• USA • PH: (727)	584-5063 •	Toll Free: (888	) 873-2443
	Website: https:/	/cihequipment.com			



# CIH Equipment Company Inc

1806 South Highland Avenue, Clearwater, FL 33756, USA PH: 727-584-5063, Toll Free: 888-873-2443 Website: https://cihequipment.com



# **CERTIFICATE OF CALIBRATION**

Certificate No. : UNTL/04267/22

Calibrated Date: 09-01-2022

Customer Name & Address	: Ramboll 333 West Wacker Drive Suite. 2700 Chicago, IL 60606	Date of Issue	: 09-01-2022
Received Date	; 08-30-2022	Туре	: 00 Multi-Functional Devices
Calibration Due on (As requested by the customer)	: 09-01-2023	Manufacturer	: TSI
Location	: At Lab	Model Number	: 982
Data Type	: As Left	Serial Number	: P12300079

Work Procedure: 0000h: Multi-Functional

Reference Equipment(s) used:

Equipment Name	Serial No.	Traceability	Certificate No.	Calibration Due Date
Temperature and RH Meter	H2920123		220324-HMT333- H2920123	03-24-2023
Calibration Gas	Lot# 21-8347			04-01-2026
Calibration Gas	Lot #21-7856			04-01-2026
Calibration Gas	Lot #22-8804			07-11-2026

### **Traceability Statement:**

CIH Equipment Company Inc. certifies that the instrument listed above meets or exceeds manufacturing tolerance limits as stated in the referenced test procedure (unless otherwise noted). This instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology. CIH Equipment Company Inc. calibration system is A2LA accredited to ISO/IEC 17025-2017, ANSI/NCSL Z540-1-1994. This report may not be reproduced, except in full, without the written approval CIH Equipment Company Inc. This calibration was done by comparing the unit under test to the listed calibration standards, there was no sampling used in this calibration. The result reported herein apply only to the calibration of the items described above and no limitations of use apply to the calibration unit. A PASS (in tolerance) or FAIL (out of tolerance) result indicates all measured values fall within or outside unmodified limits. The statement of compliance does not take the reported measurement uncertainty into account. In addition, reported uncertainties do not include instabilities due to transportation, usage, passage of time etc.

Technician Name : Robert Backus

Al Bart

Approved By : Rick Whitmer

Rick culut

1806 South Highland Ave • Clearwater, FL 33756-1762 • USA • PH: (727) 584-5063 • Toll Free: (888) 873-2443 Website: https://cihequipment.com



# **CIH Equipment Company Inc**

1806 South Highland Avenue, Clearwater, FL 33756, USA PH: 727-584-5063, Toll Free: 888-873-2443 Website: https://cihequipment.com



# **CERTIFICATE OF CALIBRATION**

Certificate No. : UNTL/04267/22 Calibrated Date: 09-01-2022

### Calibration Results (As Left)

### **Relative Humidity Calibration Data**

-	
Ambient Temperature (°F)	: 77
Ambient Relative Humidity (%RH)	: 51
Ambient Barometric Pressure (in.Hg)	: 29.98
Tolerance	: 3.0%RH
Unit of Measurement	: %RH

Reference Data	Measured Data	Error (%)	Result
35.4	37.6	6.21	Pass
49.9	49.9	0	Pass

### **Gas Calibration Data**

Ambient Temperature (°F)	: 77
Ambient Relative Humidity	: 51
Ambient Barometric Pressure	: 29.98
(in.Hg)	

Gas Type	Tolerance (%)	Reference Data	Measured Data	Error (%)	Result
Carbon Monoxide [CO]	3	100	100	0	Pass
Carbon Dioxide [CO2]	3	1000	1000	0	Pass

### **Temperature Calibration Data**

Ambient Temperature (°F)	: 77
Ambient Relative Humidity (%RH)	: 51
Ambient Barometric Pressure (in.Hg)	: 29.98
Tolerance	: 0.5°F
Unit of Measurement	:°F

Description	Reference Data	Measured Data	Error (%)	Result
T1 Input	59.8	60	0.33	Pass
T1 Input	79.9	80.3	0.50	Pass.
T1 Input	99.35	99.75	0.40	Pass