



# ANALYTICAL REPORT

Report Date: February 28, 2020

Rob Egbert  
Castleview Home Inspections  
PO Box 160231  
Clearfield, UT 84016

Phone: 801-548-4616

E-mail: [castleviewinspections@gmail.com](mailto:castleviewinspections@gmail.com)

Workorder: **34-2005731**

Project ID: 1015 W Castleton 022420

Purchase Order: 1015 W Castleton

Project Manager: Meredith D. Edwards

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Receive Date</u>	<u>Analysis Date</u>	<u>Sampling Site</u>
3355499 Main Level (Kitchen)	2005731001	February 25, 2020	February 28, 2020	Indoors-Main Level
3355500 Outdoors Back Patio	2005731002	February 25, 2020	February 28, 2020	Outdoors-Back Patio

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, 84123 USA | PHONE +1 801 266 7700 | FAX +1 801 268 9992

ALS GROUP USA, CORP. An ALS Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



# ANALYTICAL REPORT

## Spore Trap Analysis

**Workorder:** 34-2005731

**Method:** MC-AN-001  
**Matrix:** Spore Trap

**Client:** Castleview Home  
 Inspections

**Project Manager:** Meredith D. Edwards

<b>Lab Sample ID</b>	2005731001	2005731002
<b>Client Sample ID</b>	3355499 Main Level (Kitchen)	3355500 Outdoors Back Patio
<b>Air Volume (L)</b>	150	150

Fungal Spore Type	Spore Count	Spore Count/m <sup>3</sup>	Spore Count	Spore Count/m <sup>3</sup>
<i>Alternaria</i>	--	--	--	--
<i>Arthrinium</i>	--	--	--	--
Ascospores	2	13	4	27
<i>Aspergillus/Penicillium Types</i>	3	20	--	--
Basidiospores	--	--	--	--
<i>Bipolaris/Dreschlera</i>	--	--	--	--
<i>Chaetomium</i>	--	--	--	--
<i>Cladosporium</i>	18	120	--	--
<i>Curvularia</i>	--	--	--	--
<i>Epicoccum</i>	1	7	--	--
<i>Fusarium</i>	--	--	--	--
<i>Memnoniella</i>	--	--	--	--
<i>Nigrospora</i>	--	--	--	--
<i>Oidium/Peronospora</i>	--	--	--	--
<i>Pithomyces</i>	--	--	--	--
<i>Polythrincium</i>	--	--	--	--
Rhizopus/Mucor	--	--	--	--
<i>Smuts/Myxomycetes/Periconia/Rusts</i>	24	160	13	87
<i>Spegazzinia</i>	--	--	--	--
<i>Stachybotrys</i>	--	--	--	--
<i>Stemphylium</i>	--	--	--	--
<i>Torula</i>	--	--	--	--
<i>Ulocladium</i>	3	20	--	--
Unidentified Mitospores	--	--	--	--
<b>Total Fungal Spores</b>	<b>51</b>	<b>340</b>	<b>17</b>	<b>113</b>

Other Particulate	Density Rating	Density Rating
Background Density	3+	2+
Pollen	--	--
Fungal Fragments	--	--
Skin Cells	2+	--



# ANALYTICAL REPORT

## Spore Trap Analysis

Workorder: **34-2005731**

Method: MC-AN-001  
Matrix: Spore Trap

Client: Castleview Home Inspections  
Project Manager: Meredith D. Edwards

### Method Summary

ALS Method MC-AN-001 is used to determine fungal spore counts using plain light microscopy under 630x magnification. Whenever possible, 100% of the sample trace is read. Where individual spore counts are high, a portion of the trace may be analyzed. The total spore count is then estimated using the following equation:

$$\text{Spore Count} * (14.4 / (\text{Microscopic Field Diameter} * T))$$

Where 14.4 is the trace length in mm, the Microscopic Field Diameter is the measured diameter of the field of view under 630X magnification in mm, and T is the number of traverses analyzed.

### Sample Preparation

The analytical slide is removed from the spore trap cassette and mounted on a supportive glass slide, which is then prepared for viewing with the use of appropriate microbiological stains.

### Density Rating

The density rating is based on a visual observation of the non-spore particulate that can mask the presence of fungal spores. Excessive non-spore particulate may make it difficult to produce accurate results. The following scale is used to assist in the interpretation of the reported results.

<u>Density Rating</u>	<u>Observation</u>	<u>Interpretation</u>
0	No particulate detected	May indicate improper sampling or blank
1+	Minimal particulate present	Analysis is optimal
2+	Minor particulate present	Fair analytical conditions
3+	Sufficient particulate present	May affect analysis accuracy
4+	Abundant particulate present	Analysis may not accurately reflect spore concentration
5+	Severely occluded	Sample is not acceptable for analysis

### Sample Calculation

Fungal spore concentrations in spores/m<sup>3</sup> are determined from the following equation:

$$\frac{\text{Total Spore Count}}{\text{Air Volume (L)}} * 1000 = \text{Spores/m}^3$$



## ANALYTICAL REPORT

### Spore Trap Analysis

Workorder: **34-2005731**

Method: MC-AN-001  
Matrix: Spore Trap

Client: Castleview Home  
Inspections  
Project Manager: Meredith D. Edwards

#### Potential Indoor Air Quality Molds and Fungi

Certain mold and fungi types found in high concentrations in indoor environments may indicate the presence of an indoor air quality concern. Some of these groups include but are not limited to:

*Alternaria*  
*Aspergillus/Penicillium*  
*Chaetomium*  
*Fusarium*  
*Pithomyces*  
*Stachybotrys/Memnoniella*  
*Ulocladium*

#### Common Outdoor Molds and Fungi

Certain molds commonly found outdoors can be found indoors in moderate amounts and may or may not necessarily indicate a potential indoor air quality concern. Some of these groups include but are not limited to:

*Ascospores*  
*Basidiospores*  
*Bipolaris/Dreschlera*  
*Cladosporium*  
*Epicoccum*  
*Nigrospora*  
*Oidium/Peronospora*  
*Smuts/Myxomycetes/Periconia/Rusts*

#### Health Effects

Fungal spores are part of the natural environment and can be found both outdoors and indoors. Given the proper moisture level and nutrient source, indoor mold growth can occur on building materials and furnishings. Exposure to certain molds and fungi can cause health problems, such as allergic reactions and asthma attacks, in certain individuals. Susceptibility to the effects of mold and fungi may vary with age, genetic predisposition, impaired immune systems, and exposure level.

The results contained in this report are not intended to provide medical advice, and should not be used to determine the overall safety of an indoor living space. For more information, consult a health professional or your state or local health department.



# ANALYTICAL REPORT

## Spore Trap Analysis

Workorder: **34-2005731**

Method: MC-AN-001  
Matrix: Spore Trap

Client: Castleview Home Inspections  
Project Manager: Meredith D. Edwards

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
MC-AN-001	/S/ Peter P. Steen 02/28/2020 15:02	/S/ Brian S. Stites 02/28/2020 16:25

### Laboratory Contact Information

ALS Environmental  
960 W Levoy Drive  
Salt Lake City, Utah 84123

Phone: (801) 266-7700  
Email: [alslt.lab@ALSGlobal.com](mailto:alslt.lab@ALSGlobal.com)  
Web: [www.alsslc.com](http://www.alsslc.com)

### General Lab Comments

The results provided in this report relate only to the items tested.  
Samples were received in acceptable condition unless otherwise noted.  
The following information was provided by the client: Sample ID and Air Volume.  
Air Volume can potentially affect the validity of the results.  
This test report shall not be reproduced, except in full, without written approval of ALS.