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## ENVIRONMENTAL MYCOTOXIN PANEL REPORT FORM 08/08/2023

COMPANY INFORMATION	ORDER INFORMATION	SAMPLE INFORMATION	LAB INFORMATION
<b>Company:</b> Real Time Laboratories <b>Project:</b> House <b>Location:</b> 123 Street St. City, State 00000 <b>Project Phone:</b> <b>Project Email:</b> NA	<b>Accession No:</b> EN080823EM <b>Date of Service:</b> 08/8/2023 <b>Reported On:</b> 08/08/2023 <b>Contact:</b> Doctor Doe	<b>Date of Receipt:</b> 08/08/2023 <b>Time of Receipt:</b> 14:32 CDT <b>Date of Collection:</b> 08/8/2023 <b>Time of Collection:</b> 00:00 CDT <b>Sample Type:</b> Dust	<b>Phone:</b> 1-972-492-0419 <b>Fax:</b> 1-972-243-7759 <b>Email:</b> info@realtimelab.com <b>CLIA #:</b> 45D1051736 <b>CAP #:</b> 7210193 <b>Tax ID #:</b> 0669342

**Procedure Type:** Semi-quantitative procedure by ELISA

List of Mycotoxins tested in the Panel
Ochratoxin A
Aflatoxin Group: (B1, B2, G1, G2)
Trichothecene Group (Macrocylic): Roridin A, Roridin E, Roridin H, Roridin L-2, Verrucarin A, Verrucarin J, Satratoxin G, Satratoxin H, Isosatratoxin F
Gliotoxin Derivative
Zearalenone

**Results:**

Code	Test	Specimen	Value	Result	Not Present if less than	Equivocal if between	Present if greater or equal
D8501	Ochratoxin A	Dust	0.82200 ppb	Not Detected	1.8 ppb	1.8-2 ppb	2 ppb
D8502	Aflatoxin Group: (B1, B2, G1, G2)	Dust	1.77600 ppb	Present	0.8 ppb	0.8-1 ppb	1 ppb
D8503	Trichothecene Group (Macrocylic): Roridin A, Roridin E, Roridin H, Roridin L-2, Verrucarin A, Verrucarin J, Satratoxin G, Satratoxin H, Isosatratoxin F	Dust	0.03000 ppb	Not Detected	0.07 ppb	0.07-0.09 ppb	0.09 ppb
D8510	Gliotoxin Derivative	Dust	0.07900 ppb	Not Detected	0.5 ppb	0.5-1.0 ppb	1 ppb
D8512	Zearalenone	Dust	0.13200 ppb	Not Detected	0.5 ppb	0.5-0.7 ppb	0.7 ppb

Comment: RealTime Lab has validated a new Trichothecene testing procedure. Effective 5/18/2022, all results are reported using the new procedure. Please note the new values for cutoff levels. If you have further questions, please contact our sales team at kits@realtimelab.com.

**REPORT COMMENTS:**

Dust from House

*Director Signature*

Director or Designee Signature \_\_\_\_\_

Tests such as this should be used only in conjunction with other medically established diagnostic elements (e.g., symptoms, history, clinical impressions, results from other tests, etc). Physicians should use all the information available to them to diagnose and determine appropriate treatment for their patients.  
 Disclaimer: This test was developed and its performance characteristics determined by RealTime Lab. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88) as qualified to perform high complexity clinical laboratory testing.

Mycotoxin	Cellular Activity of Mycotoxin	Symptoms/Other	Association with a "Disease State"
<b>A FLATOXIN FAMILY</b>			
<b>Organisms: <i>Aspergillus flavus</i>, <i>Aspergillus oryzae</i>, <i>Aspergillus fumigatus</i>, <i>Aspergillus parasiticus</i></b> Aflatoxins have been associated with liver cancer [2,3], cirrhosis [4,5], and other health issues			
1	Aflatoxin B1	Binds DNA and proteins [6,7]	Shortness of breath [8], weight loss [10], most potent and highly carcinogenic.
2	Aflatoxin B2	Inhibits DNA and RNA replication [12]	Impaired fetal growth [13,14]
3	Aflatoxin G1	Cytotoxic, induces apoptosis in cells, DNA damage [1]	A flavus is a leading cause of invasive aspergillus in immunocompromised patients [15]
4	Aflatoxin G2	Cancer, neonatal jaundice [2,3,16]	Aflatoxicosis in humans and animals [15]
<b>OCHRATOXIN A</b>			
<b>Organisms: <i>Aspergillus ochraceus</i>, <i>Aspergillus niger</i>, <i>Penicillium species</i></b>			
5	Ochratoxin A	Inhibits mitochondrial ATP, potent teratogen, and immune suppressor [17-19]	Fatigue, dermatitis, irritated bowel [20-22]
<b>MA CROCYCLIC TRICHOTHECENES (Group D)</b>			
<b>Organism: <i>Stachybotrys chartarum</i></b>			
6	Satratoxin G	DNA, RNA, and protein synthesis inhibition [25]	Fatigue [26]
7	Satratoxin H	Inhibits protein synthesis [25]	Fatigue [26]
8	Isosatratoxin F	Immunosuppression [30]	Weakened immune system [30]
9	Roridin A	Immunosuppression [30]	Weakened immune system [30]
10	Roridin E	DNA, RNA, and protein synthesis disruption [25,32]	Weakened immune system [30]
11	Roridin H	Inhibits protein synthesis [25]	Weakened immune system [30]
12	Roridin L-2	Immunosuppression [30]	Weakened immune system [30]
13	Verrucaric acid	Immunosuppression [30]	
14	Verrucaric acid	Immunosuppression [30]	
<b>GLIOTOXIN DERIVATIVE</b>			
<b>Organisms: <i>Aspergillus fumigatus</i>, <i>Aspergillus terreus</i>, <i>Aspergillus niger</i>, <i>Aspergillus flavus</i></b>			
15	Gliotoxin	Attacks intracellular function in immune system [34]	Memory and breathing issues [35,36]
<b>ZEARALENONE</b>			
<b>Organisms: <i>Fusarium species</i></b>			
16	Zearalenone	Estrogen mimic [37,38]	Early puberty, low sperm counts, cancer [39-42]

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