LIMITED INDOOR AIR ASSESSMENT REPORT

LIMESTONE HEALTH FACILITY
1600 WEST HOBBS STREET
ATHENS, ALABAMA 35611

Prepared For:

VentorLux, LLC
1210 43rd Street
Phenix City, Alabama 36867

Prepared by:

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7972 Hampton Cove Drive
Ooltewah, Tennessee 37363

September 10, 2021

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SECTION 1.0 – LIMITED INDOOR AIR ASSESSMENT

1.1 INTRODUCTION

ERRM, LLC was contracted by VentorLux, LLC to collect indoor air samples for the purpose of determining the effectiveness of its Soulis air cleaner. The Soulis air cleaner is a proprietary unit developed with quiet operation and using Ultra-Violet Radiation that kills such things as bacteria (including virus causing agents), pathogens, and mold. The Indoor Air Assessment (IAA) was limited to two (2) locations mutually agreed upon by Limestone Health Facility, VentorLux, and ERRM, LLC. Those two locations were as follows:

1. Patient Physical Therapy Room – operated with the buildings area wide HVAC unit
2. Representative patient room (identifier left out) operated with a through the wall "PTAC" unit meaning it will introduce outside air spores when operating

The IAA parameters included in the testing conducted at this facility included the following:

- Spore Trap – this unit impinges air borne particles, including mold, onto a sticky surface that can be viewed under the laboratory microscope by a trained reader. This unit provides a total count of spores whether dead or alive, viable or not. . This report and lab data will refer to this as "Spore Trap".
- Culturable Air Fungi - The method employs an Anderson impinger that directs air flow onto a petri dish (Malt Extract Agar Plate) that is cultured at the lab. This media allows isolation of pathogenic fungi that are "viable". It will grow a wide variety of fungi that can then be identified at the laboratory. . This report and lab data will refer to this as "MEA".
- Culturable Air Bacteria - The method employs an Anderson impinger that directs air flow onto a petri dish (Tryptic Soy Agar with blood plate lab) that is cultivated to determine hemolytic activity of bacteria and identification. This method of analysis can identify differing types of infectious bacteria groups i.e., Gram-Negative, Gram-Positive, etc. This report and lab data will refer to this as "TSA".

1.2 FIELD ACTIVITIES

ERRM, LLC performed the following field activities specifically to determine the effectiveness of the Soulis unit.

IAA Sampling

- On July 29, 2020, ERRM, LLC (Mr. Michael Kendall) was on-site to perform the IAA. The equipment was setup (two rotary vane pumps filed calibrated to 28.1 liters per minute

(LPM) for MEA and TSA Agar and a separate pump calibrated to 10 LPM for the Spore Trap). Five (5) samples were collected at each testing location as follows:

1. One (1) Background air sample, using the Spore Trap, MEA, and TSA media to collect the air-borne species prior to turning on the Soulis unit. The samples were collected over a 10-minute interval as needed for each analysis method.

2. One (1) sample (sample pumps turned on simultaneously with the Soulis Unit) and using the Spore Trap and MEA media to collect the air-borne species. The samples were collected over a 10-minute interval as needed for each analysis method.

3. One (1) sample (sample pumps turned on simultaneously with the Soulis Unit) and using the Spore Trap, MEA, and TSA media to collect the air-borne species. The samples were collected over a 10-minute interval as needed for each analysis method.

4. One (1) sample (sample pumps turned on simultaneously with the Soulis Unit) and using the Spore Trap and MEA media to collect the air-borne species. The samples were collected over a 10-minute interval as needed for each analysis method.

5. One (1) sample (sample pumps turned on simultaneously with the Soulis Unit) and using the Spore Trap, MEA, and TSA media to collect the air-borne species. The samples were collected over a 10-minute interval as needed for each analysis method.

- Best practices were taken by personnel to ensure quality of the project. Since this was a test procedure building occupants were allowed to come and go during the testing procedure and the HVAC units were left in operating mode. The times were recorded to provide an understanding of the results, the impact on the results and the effectiveness of the Soulis Unit under normal operating conditions.

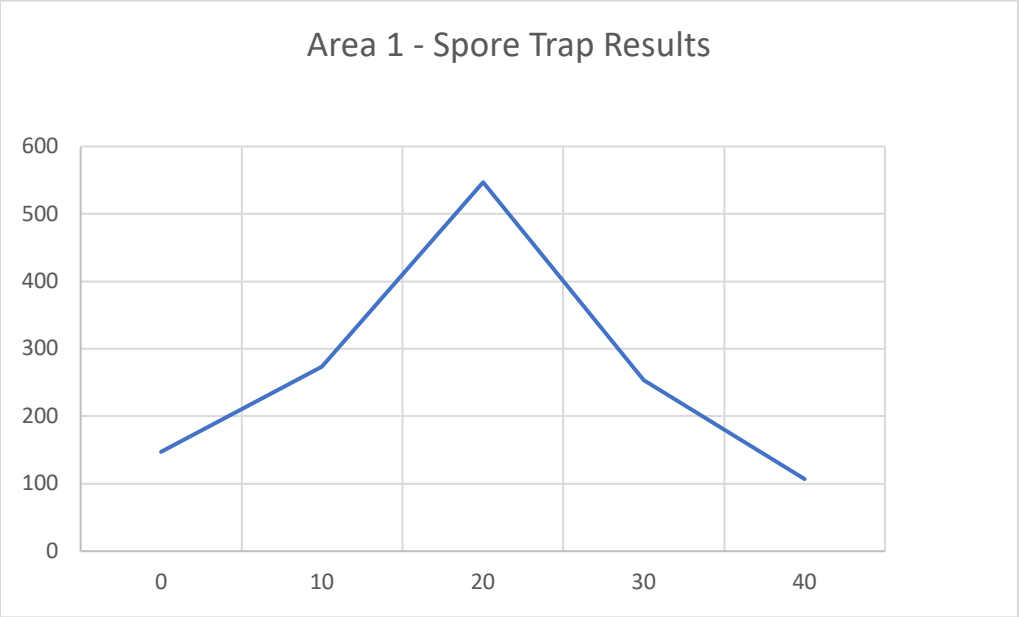
2.0 RESULTS

The laboratory data has been prepared in three (3) summary tables one for each of the procedures using Spore Trap, MEA, and TSA. The raw laboratory results are attached in Appendix B. The results are discussed separately in following sections.

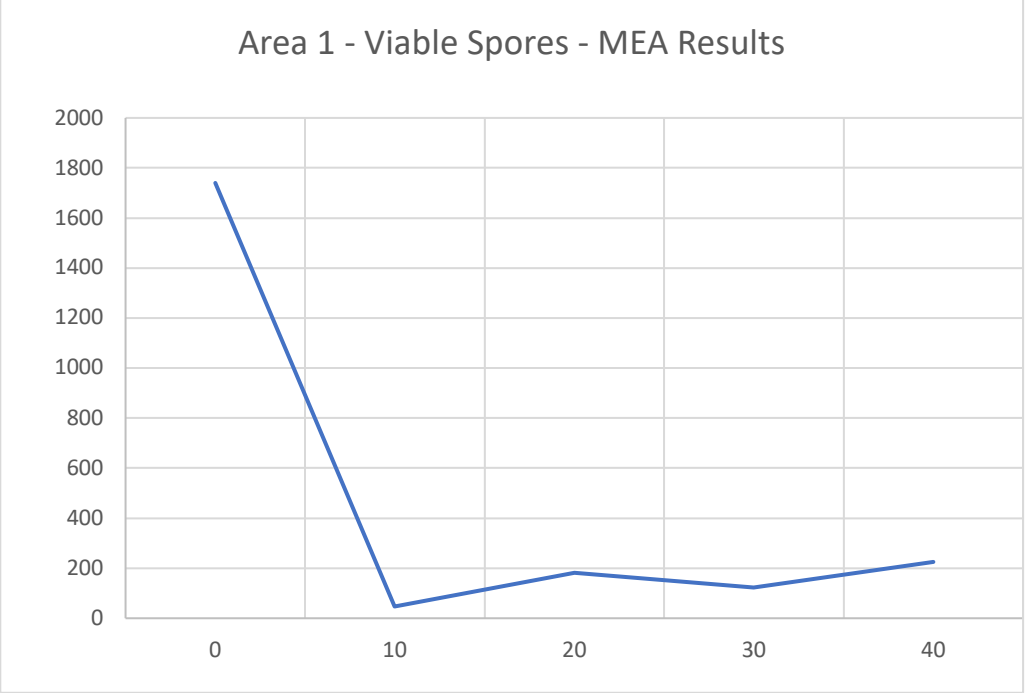
2.1 AREA 1 Patient Physical Therapy

The laboratory results are presented in the graphs below with discussion of the results below each graph. The data presented as count versus time (0-40 minutes)

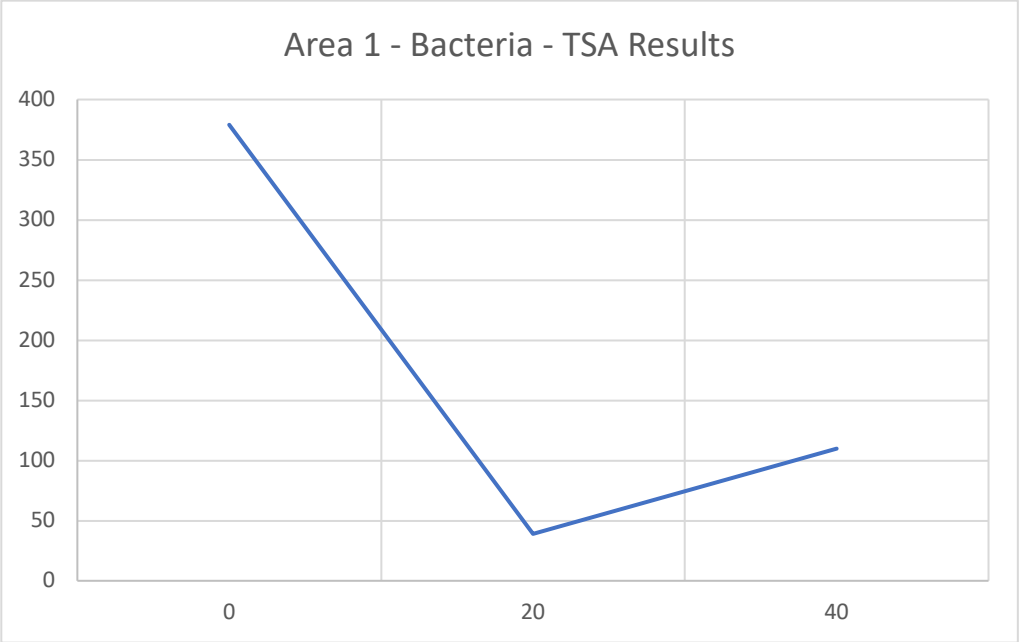
.



The preceding chart reveals that total spore counts ranged up and down with activity present in the room bringing in spores with movement and air exchanges.

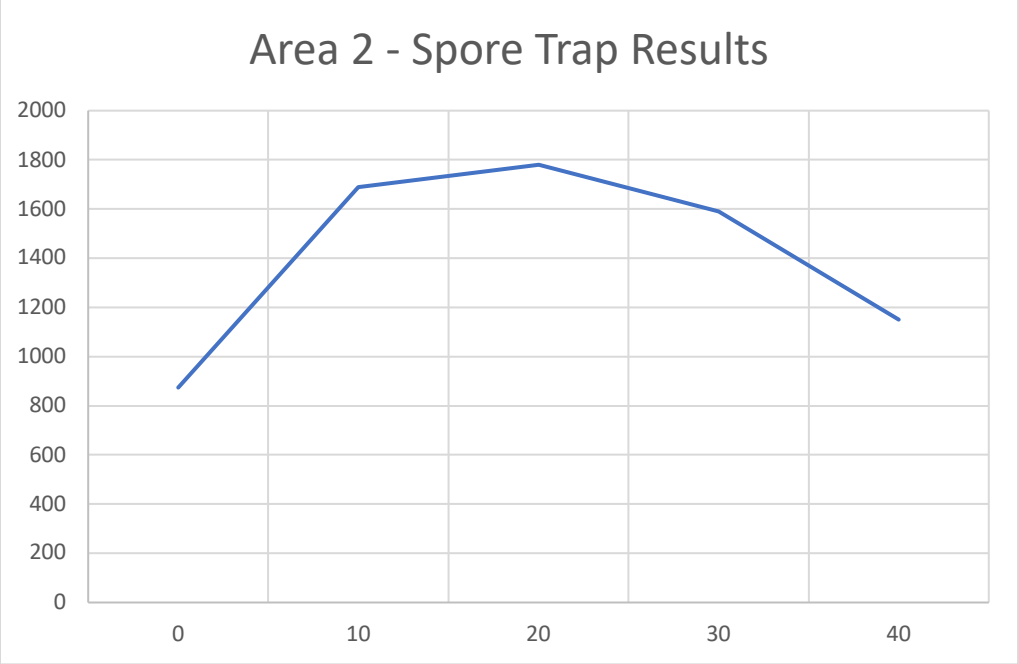


The preceding chart reveals that the Soulis unit effectively killed 97.30% of the viable mold spores within the first 10 minutes. Bacteria and Spores were introduced due to activity in the room, yet the viable mold spores were continually killed.

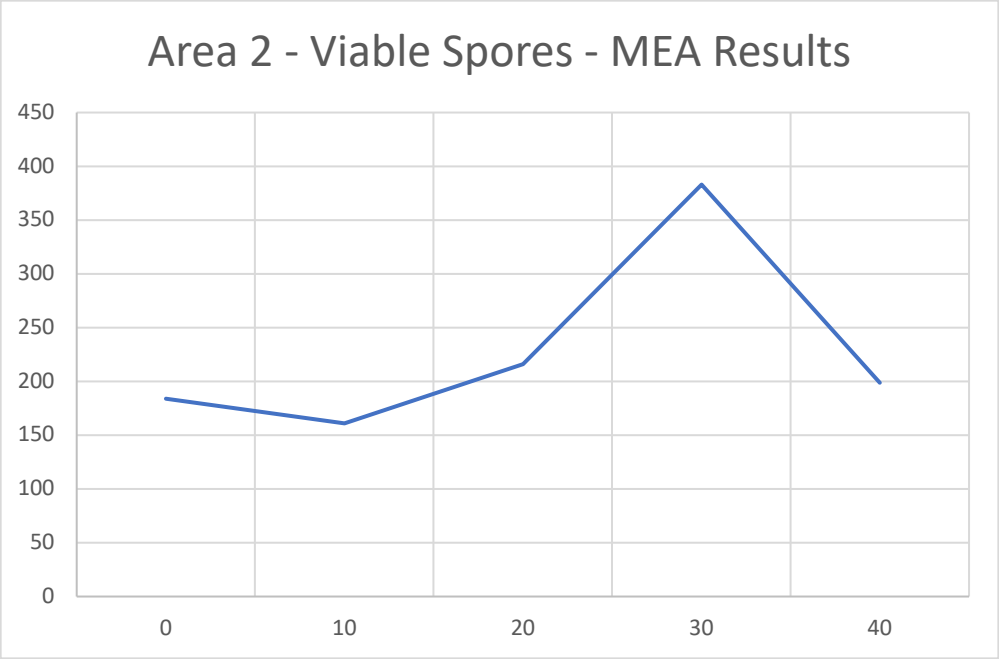


The preceding chart reveals that the Soulis unit effectively killed 89.71% of the bacteria present within 10 minutes (this chart is depicting Gram Positive Cocci – Type I, meaning can cause certain infections like pneumococcal, staphylococcal, streptococcal, and others. Bacteria and spores were introduced due to activity in the room, yet the bacterial were continually killed.

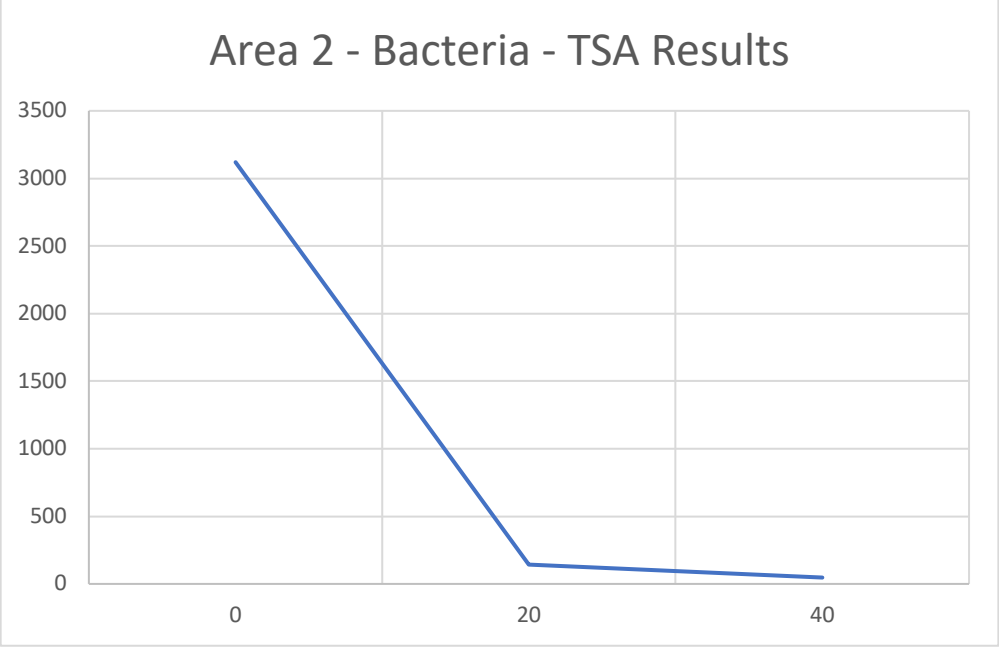
2.1 AREA 2 Patient Room with PTAC unit for Heating and Cooling



The preceding chart reveals that total spore counts ranged up and down with activity present in the room bringing in spores with movement and air exchanges.



In this preceding chart, due to this room being a patient room and patient moving in and out along with spores being introduced through the PTAC unit, a slight decline followed by a steady increase is shown. During the last approximate 15 minutes of testing the patients sat, ate dinner, and watched TV. In this timeframe the Soulis unit effectively killed 48.07% of the viable mold spores within 10 minutes.



The preceding chart reveals that the Soulis unit effectively killed 95.35% of the bacteria present (this chart is depicting Gram Positive Cocci – Type I, meaning can cause certain infections like pneumococcal, staphylococcal, streptococcal, and others. Bacteria and spores were introduced due to activity in the room, yet the bacterial were continually killed

2.1 CONCLUSIONS

Based upon the results presented above ERRM, LLC concludes that the Soulis Unit is extremely effective in killing mold spores and all varieties of bacteria within a short timeframe. The unit proved successful operating in an uncontrolled environment with spores and bacteria being introduced throughout the study.

APPENDIX A

LABORATORY TABLES

Account: ERRMMOLD **SDG**: L1385026 **Matrices**:

Lab Sample ID		L1385026-01					L1385026-02					L1385026-03					L1385026-04					L1385026-05				
Client Sample ID		A1-S1					A1-S2					A1-S3					A1-S4					A1-S5				
Date Collected		07/29/2021					07/29/2021					07/29/2021					07/29/2021					07/29/2021				
Location		Area 1-10-0min					Area 1-10-10min					Area 1-10-20min					Area 1-10-30min					Area 1-10-40min				
Analysis Description		Non-Viable (Spore Trap)					Non-Viable (Spore Trap)					Non-Viable (Spore Trap)					Non-Viable (Spore Trap)					Non-Viable (Spore Trap)				
Volume Used		150					150					150					150					150				
Volume Used Units		L					L					L					L					L				
Background Debris		Heavy					Heavy					Heavy					Heavy					Heavy				
Method	Analyte	Raw Count	Result	Percent Of Total	AS	Percent Of Slide Read	Raw Count	Resul t	Percent Of Total	AS	Percent Of Slide Read	Raw Count	Resul t	Percent Of Total	AS	Percent Of Slide Read	Raw Count	Result	Percen t Of Total	AS	Percent Of Slide Read	Raw Count	Result	Percent Of Total	AS	Percent Of Slide Read
ENV-SOP-MTJL-0235	ASCOSPORES	0				100	1	7	2.55	7	100	5	33	6.03	7	100	2	13	5.12	7	100	0				100
ENV-SOP-MTJL-0235	BASIDIOSPORES	9	60	40.8	7	100	28	187	68.2	7	100	44	293	53.6	7	100	21	140	55.1	7	100	10	67	62.6	7	100
ENV-SOP-MTJL-0235	BIPOLARIS/DRECHSLERA	0				100	0				100	0				100	1	7	2.76	7	100	0				100
ENV-SOP-MTJL-0235	CLADOSPORIUM	3	20	13.6	7	100	9	60	21.9	7	100	19	127	23.2	7	100	10	67	26.4	7	100	5	33	30.8	7	100
ENV-SOP-MTJL-0235	CURVULARIA	0				100	0				100	0				100	0				100	0				100
ENV-SOP-MTJL-0235	EPICOCCUM	0				100	0				100	0				100	0				100	0				100
ENV-SOP-MTJL-0235	NIGROSPORA	0				100	0				100	0				100	0				100	0				100
ENV-SOP-MTJL-0235	PENICILLIUM/ASPERGILLUS	9	60	40.8	7	100	3	20	7.3	7	100	13	87	15.9	7	100	3	20	7.87	7	100	0				100
ENV-SOP-MTJL-0235	SMUTS,MYXOMYCETES,PERICONIA	0				100	0				100	1	7	1.28	7	100	0				100	0				100
ENV-SOP-MTJL-0235	ZYGOMYCETES	0				100	0				100	0				100	0				100	0				100
ENV-SOP-MTJL-0235	PITHOMYCES	1	7	4.76	7	100																				
ENV-SOP-MTJL-0235	PESTALOTIOPSIS																1	7	2.76	7	100					
ENV-SOP-MTJL-0235	PYRICULARIA																					1	7	6.54	7	100
ENV-SOP-MTJL-0235	TOTAL		147					274					547					254					107			

Lab Sample ID		L1385026-06					L1385026-07					L1385026-08					L1385026-09					L1385026-10				
Client Sample ID		A2-S1					A2-S2					A2-S3					A2-S4					A2-S5				
Date Collected		07/29/2021					07/29/2021					07/29/2021					07/29/2021					07/29/2021				
Location		Area 2-10-0min					Area 2-10-10min					Area 2-10-20min					Area 2-10-30min					Area 2-10-40min				
Analysis Description		Non-Viable (Spore Trap)					Non-Viable (Spore Trap)					Non-Viable (Spore Trap)					Non-Viable (Spore Trap)					Non-Viable (Spore Trap)				
Volume Used		150					150					150					150					150				
Volume Used Units		L					L					L					L					L				
Background Debris		Heavy					Heavy					Heavy					Heavy					Heavy				
Method	Analyte	Raw Count	Resul t	Percent Of Total	AS	Percent Of Slide Read	Raw Count	Resul t	Percent Of Total	AS	Percent Of Slide Read	Raw Count	Result	Percent Of Total	AS	Percent Of Slide Read	Raw Count	Result	Percent Of Total	AS	Percen t Of Slide Read	Raw Count	Result	Percent Of Total	AS	Percent Of Slide Read
ENV-SOP-MTJL-0235	ASCOSPORES	0				100	4	27	1.6	7	100	7	47	2.64	7	100	3	20	1.26	7	100	0				100
ENV-SOP-MTJL-0235	BASIDIOSPORES	67	447	51.1	7	100	197	1310	77.5	7	100	217	1450	81.5	7	100	202	1350	84.9	7	100	152	1010	87.8	7	100
ENV-SOP-MTJL-0235	BIPOLARIS/DRECHSLERA	0				100	1	7	0.414	7	100	0				100	1	7	0.44	7	100	0				100
ENV-SOP-MTJL-0235	CLADOSPORIUM	9	60	6.86	7	100	31	207	12.2	7	100	20	133	7.47	7	100	16	107	6.73	7	100	13	87	7.57	7	100
ENV-SOP-MTJL-0235	CURVULARIA	1	7	0.801	7	100	0				100	1	7	0.393	7	100	1	7	0.44	7	100	1	7	0.609	7	100
ENV-SOP-MTJL-0235	EPICOCCUM	0				100	0				100	1	7	0.393	7	100	0				100	0				100
ENV-SOP-MTJL-0235	NIGROSPORA	0				100	0				100	1	7	0.393	7	100	0				100	0				100
ENV-SOP-MTJL-0235	PENICILLIUM/ASPERGILLUS	46	307	35.1	7	100	12	80	4.73	7	100	13	87	4.89	7	100	12	80	5.03	7	100	6	40	3.48	7	100
ENV-SOP-MTJL-0235	SMUTS,MYXOMYCETES,PERICONIA	2	13	1.49	7	100	7	47	2.78	7	100	5	33	1.85	7	100	1	7	0.44	7	100	1	7	0.609	7	100
ENV-SOP-MTJL-0235	ZYGOMYCETES	5	33	3.78	7	100	1	7	0.414	7	100	0				100	0				100	0				100
ENV-SOP-MTJL-0235	PITHOMYCES	1	7	0.801	7	100	1	7	0.414	7	100	1	7	0.393	7	100	1	7	0.44	7	100					
ENV-SOP-MTJL-0235	PESTALOTIOPSIS																									
ENV-SOP-MTJL-0235	PYRICULARIA																									
ENV-SOP-MTJL-0235	TOTAL		874					1690					1780					1590					1150			

Account: ERRMMOLD **SDG**: L1385026 **Matrices**: Mold

Lab Sample ID		L1385026-11				L1385026-12				L1385026-13				L1385026-14				L1385026-15				L1385026-16				L1385026-17				L1385026-18				L1385026-19				L1385026-20			
Client Sample ID		A1-S1				A1-S2				A1-S3				A1-S4				A1-S5				A2-S1				A2-S2				A2-S3				A2-S4				A2-S5			
Date Collected		07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021			
Location		Area 1-10-0min				Area 1-10-10min				Area 1-10-20min				Area 1-10-30min				Area 1-10-40min				Area 2-10-0min				Area 2-10-10min				Area 2-10-20min				Area 2-10-30min				Area 2-10-40min			
Medium Used		MEA				MEA				MEA				MEA				MEA				MEA				MEA				MEA				MEA				MEA			
Volume Used					283				283				283				283				283				283				283				283				283			
Volume Used Units		1				1				1				1				1				1				1				1				1				1			
PHCC Filter					400				400				400				400				400				400				400				400				400			
Method	Analyte	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier
ENV-SOP-MTJL-0236	ACREMONIUM																																								
ENV-SOP-MTJL-0236	ALTERNARIA																																								
ENV-SOP-MTJL-0236	ASPERGILLUS FLAVUS																																								
ENV-SOP-MTJL-0236	ASPERGILLUS FUMIGATUS																																								
ENV-SOP-MTJL-0236	ASPERGILLUS GLAUCUS																																								
ENV-SOP-MTJL-0236	ASPERGILLUS NIDULANS																																								
ENV-SOP-MTJL-0236	ASPERGILLUS NIGER																																								
ENV-SOP-MTJL-0236	ASPERGILLUS OCHRACEUS																																								
ENV-SOP-MTJL-0236	ASPERGILLUS SYDOWII																																								
ENV-SOP-MTJL-0236	ASPERGILLUS VERSICOLOR																																								
ENV-SOP-MTJL-0236	AUREOBASIDIUM																																								
ENV-SOP-MTJL-0236	BASIDIOMYCETES																																								
ENV-SOP-MTJL-0236	BIPOLARIS/DRECHSLERA																																								
ENV-SOP-MTJL-0236	BOTRYTIS																																								
ENV-SOP-MTJL-0236	CHAETOMIUM																																								
ENV-SOP-MTJL-0236	CLADOSPORIUM					9	32	4										13	47	4						1	4	4		37	137	4		39	145	4		2	7	4	
ENV-SOP-MTJL-0236	CURVULARIA																																								
ENV-SOP-MTJL-0236	EPICOCCUM																																								
ENV-SOP-MTJL-0236	FUSARIUM																																								
ENV-SOP-MTJL-0236	MUCOR																																								
ENV-SOP-MTJL-0236	NON-SPORULATING FUNGI					1	4	4						1	4	4		2	7	4						1	4	4		5	18	4		6	21	4		1	4	4	
ENV-SOP-MTJL-0236	PAECILOMYCES																																								
ENV-SOP-MTJL-0236	PENICILLIUM					1	4	4										2	7	4										12	43	4		10	36	4					
ENV-SOP-MTJL-0236	PHOMA/COELOMYCETES																																								
ENV-SOP-MTJL-0236	RHIZOPUS																																								
ENV-SOP-MTJL-0236	STACHYBOTRYS CHARTARUM																																								
ENV-SOP-MTJL-0236	ULOCLADIUM																																								
ENV-SOP-MTJL-0236	YEASTS	283	1740	4		2	7	4		48	181	4		32	118	4		44	165	4		49	184	4		41	153	4		5	18	4		48	181	4		49	184	4	
ENV-SOP-MTJL-0236	FUSARIUM-LIKE																																					1	4	4	
ENV-SOP-MTJL-0236	TOTAL		1740				47				181				122				226				184				161				216				383				199		

Lab Sample ID		L1385026-21				L1385026-22				L1385026-23				L1385026-24				L1385026-25				L1385026-26			
Client Sample ID		A1-S1				A1-S3				A1-S5				A2-S1				A2-S3				A2-S5			
Date Collected		07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021				07/29/2021			
Location		Area 1-10-0min				Area 1-10-20min				Area 1-10-40min				Area 2-10-0min				Area 2-10-20min				Area 2-10-40min			
Medium Used		TSA				TSA				TSA				TSA				TSA				TSA			
Volume Used			283				283				283				283				283				283		
Volume Used Units		1				1				1				1				1				1			
PHCC Filter			400				400				400				400				400				400		
Method	Analyte	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier	Raw Count	Result	AS	Qualifier
ENV-SOP-MTJL-0249	ACTINOMYCETE																					1	4	4	
ENV-SOP-MTJL-0249	BACILLUS SPP.																								
ENV-SOP-MTJL-0249	CORYNEFORMS																								
ENV-SOP-MTJL-0249	GRAM NEGATIVE BACILLI																								
ENV-SOP-MTJL-0249	GRAM NEGATIVE BACILLI-TYPE I					3	11	4						1	4	4									
ENV-SOP-MTJL-0249	GRAM NEGATIVE BACILLI-TYPE II					5	18	4														2	7	4	
ENV-SOP-MTJL-0249	GNB COLIFORM																								
ENV-SOP-MTJL-0249	GNB NON-COLIFORM																								
ENV-SOP-MTJL-0249	GNB NON-COLIFORM-TYPE I																								
ENV-SOP-MTJL-0249	GNB NON-COLIFORM-TYPE II																								
ENV-SOP-MTJL-0249	GRAM POSITIVE BACILLI																								
ENV-SOP-MTJL-0249	GRAM POSITIVE BACILLI-TYPE I					1	4	4																	
ENV-SOP-MTJL-0249	GRAM POSITIVE BACILLI-TYPE II																								
ENV-SOP-MTJL-0249	GRAM POSITVE COCCI																								
ENV-SOP-MTJL-0249	GRAM POSITIVE COCCI-TYPE I	94	379	4		11	39	4		30	110	4		356	3120	4		39	145	4		13	47	4	
ENV-SOP-MTJL-0249	GRAM POSITIVE COCCI-TYPE II	1	4	4						10	36	4										1	4	4	
ENV-SOP-MTJL-0249	MICROCOCCUS SPP.																								
ENV-SOP-MTJL-0249	STAPHYLOCOCCUS SPP.																								
ENV-SOP-MTJL-0249	STREP / ENTEROCOCCUS																								
ENV-SOP-MTJL-0249	GRAM NEGATIVE COCCI					4	14	4														3	11	4	
ENV-SOP-MTJL-0249	YEAST																								
ENV-SOP-MTJL-0249	GRAM POSITIVE COCCI TYPE III	2	7	4																					
ENV-SOP-MTJL-0249	GRAM POSITIVE COCCI TYPE IV									12	43	4						1	4	4					
ENV-SOP-MTJL-0249	GRAM POSITIVE COCCI TYPE V									1	4	4													
ENV-SOP-MTJL-0249	GRAM NEGATIVE BACILLI TYPE III													1	4	4									
ENV-SOP-MTJL-0249	GRAM NEGATIVE BACILLI TYPE IV													1	4	4									
ENV-SOP-MTJL-0249	GRAM POSITIVE COCCI III																	1	4	4					
ENV-SOP-MTJL-0249	TOTAL		390				86				193				3130				153				73		

APPENDIX B

RAW LABORATORY

ANALYTICAL REPORT

August 09, 2021

ERRM, LLC

Sample Delivery Group:	L1385026
Samples Received:	07/31/2021
Project Number:	LIMESTONE HEALTH
Site:	34-214178
Report To:	Michael J. Kendall, P.G. 7972 Hampton Cove Drive Ooltewah, TN 37363
AIHA-LAP, LLC Cert.#:	100789

Entire Report Reviewed By:

Darren Reeder
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

A1-S1 L1385026-01 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 14:32	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A1-S2 L1385026-02 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 16:44	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A1-S3 L1385026-03 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 16:56	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A1-S4 L1385026-04 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:12	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A1-S5 L1385026-05 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:24	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A2-S1 L1385026-06 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 14:56	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A2-S2 L1385026-07 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:45	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A2-S3 L1385026-08 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:58	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A2-S4 L1385026-09 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 00:00	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A2-S5 L1385026-10 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 00:00	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0235	WG1717995	08/05/21 10:59	08/05/21 10:59	BPS	Mt. Juliet, TN

A1-S1 L1385026-11 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 14:32	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A1-S2 L1385026-12 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 16:44	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A1-S3 L1385026-13 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 16:56	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A1-S4 L1385026-14 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:12	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A1-S5 L1385026-15 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:24	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A2-S1 L1385026-16 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 14:56	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A2-S2 L1385026-17 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 17:45 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A2-S3 L1385026-18 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 17:58 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A2-S4 L1385026-19 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 00:00 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A2-S5 L1385026-20 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 00:00 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0236	WG1718978	08/06/21 15:49	08/06/21 15:49	BPS	Mt. Juliet, TN

A1-S1 L1385026-21 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 14:32 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0249	WG1718978	08/09/21 10:30	08/09/21 10:30	CFM	Mt. Juliet, TN

A1-S3 L1385026-22 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 16:56 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0249	WG1718978	08/09/21 10:30	08/09/21 10:30	CFM	Mt. Juliet, TN

A1-S5 L1385026-23 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 17:24 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0249	WG1718978	08/09/21 10:30	08/09/21 10:30	CFM	Mt. Juliet, TN

A2-S1 L1385026-24 Mold

Collected by: Mike Kendall | Collected date/time: 07/29/21 14:56 | Received date/time: 07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0249	WG1718978	08/09/21 10:30	08/09/21 10:30	CFM	Mt. Juliet, TN

A2-S3 L1385026-25 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 17:58	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0249	WG1718978	08/09/21 10:30	08/09/21 10:30	CFM	Mt. Juliet, TN

A2-S5 L1385026-26 Mold

Collected by	Collected date/time	Received date/time
Mike Kendall	07/29/21 00:00	07/31/21 09:15

Method	Batch	Preparation date/time	Analysis date/time	Analyst	Location
Method ENV-SOP-MTJL-0249	WG1718978	08/09/21 10:30	08/09/21 10:30	CFM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Darren Reeder
Project Manager

Project Narrative

Bacterial Andersen Quantification

Blank corrections have been applied.

Particle hole correction chart used for all calculations; table and/or formula available upon request.

The calculation is based on the air volume and conversion factor to convert CFU/sample to CFU/m3.

Fungal Andersen Quantification

Blank corrections have not been applied.

Particle hole correction chart used for all calculations; table and/or formula available upon request.

The calculation is based on the air volume and conversion factor to convert CFU/sample to CFU/m3.

Non-Viable (Spore Trap) Mold Quantification

Blank corrections have not been applied.

Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.

The calculation is based on the air volume and percent of slide read.

Background Debris Rating

Very light	< 5 %
Light	5 – 10 %
Moderate	10 – 25 %
Heavy	25 – 75 %
Very heavy	75 % +

A1-S1

Collected date/time: 07/29/21 14:32

SAMPLE RESULTS - 01

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A1-S1	L1385026-01	Area 1-10-0min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Basidiospores	9	60	40.8	7	100	
				Cladosporium	3	20	13.6	7	100	
				Penicillium/Aspergillus	9	60	40.8	7	100	
				Pithomyces	1	7	4.76	7	100	
				Total		147				

A1-S2

Collected date/time: 07/29/21 16:44

SAMPLE RESULTS - 02

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A1-S2	L1385026-02	Area 1-10-10min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Ascospores	1	7	2.55	7	100	
				Basidiospores	28	187	68.2	7	100	
				Cladosporium	9	60	21.9	7	100	
				Penicillium/Aspergillus	3	20	7.30	7	100	
				Total		274				

A1-S3

Collected date/time: 07/29/21 16:56

SAMPLE RESULTS - 03

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A1-S3	L1385026-03	Area 1-10-20min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Ascospores	5	33	6.03	7	100	
				Basidiospores	44	293	53.6	7	100	
				Cladosporium	19	127	23.2	7	100	
				Penicillium/Aspergillus	13	87	15.9	7	100	
				Smuts,Myxomycetes,Periconia	1	7	1.28	7	100	
				Total		547				

A1-S4

Collected date/time: 07/29/21 17:12

SAMPLE RESULTS - 04

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A1-S4	L1385026-04	Area 1-10-30min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Ascospores	2	13	5.12	7	100	
				Basidiospores	21	140	55.1	7	100	
				Bipolaris/Drechslera	1	7	2.76	7	100	
				Cladosporium	10	67	26.4	7	100	
				Penicillium/Aspergillus	3	20	7.87	7	100	
				Pestalotiopsis	1	7	2.76	7	100	
				Total		254				

A1-S5

Collected date/time: 07/29/21 17:24

SAMPLE RESULTS - 05

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A1-S5	L1385026-05	Area 1-10-40min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Basidiospores	10	67	62.6	7	100	
				Cladosporium	5	33	30.8	7	100	
				Pyricularia	1	7	6.54	7	100	
				Total		107				

A2-S1

Collected date/time: 07/29/21 14:56

SAMPLE RESULTS - 06

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A2-S1	L1385026-06	Area 2-10-0min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Basidiospores	67	447	51.1	7	100	
				Cladosporium	9	60	6.86	7	100	
				Curvularia	1	7	0.801	7	100	
				Penicillium/Aspergillus	46	307	35.1	7	100	
				Smuts,Myxomycetes,Periconia	2	13	1.49	7	100	
				Zygomycetes	5	33	3.78	7	100	

A2-S1

Collected date/time: 07/29/21 14:56

SAMPLE RESULTS - 06

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
				Pithomyces	1	7	0.801	7	100	
				Total		874				

A2-S2

Collected date/time: 07/29/21 17:45

SAMPLE RESULTS - 07

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A2-S2	L1385026-07	Area 2-10-10min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Ascospores	4	27	1.60	7	100	
				Basidiospores	197	1310	77.5	7	100	
				Bipolaris/Drechslera	1	7	0.414	7	100	
				Cladosporium	31	207	12.2	7	100	
				Penicillium/Aspergillus	12	80	4.73	7	100	
				Smuts,Myxomycetes,Periconia	7	47	2.78	7	100	
				Zygomycetes	1	7	0.414	7	100	
				Pithomyces	1	7	0.414	7	100	
				Total		1690				

A2-S3

Collected date/time: 07/29/21 17:58

SAMPLE RESULTS - 08

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed		Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time	Analyte		Spores/m3	%	Spores/m3	%	
A2-S3	L1385026-08	Area 2-10-20min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Ascospores	7	47	2.64	7	100	
				Basidiospores	217	1450	81.5	7	100	
				Cladosporium	20	133	7.47	7	100	
				Curvularia	1	7	0.393	7	100	
				Epicoccum	1	7	0.393	7	100	
				Nigrospora	1	7	0.393	7	100	
				Penicillium/Aspergillus	13	87	4.89	7	100	
				Smuts,Myxomycetes,Periconia	5	33	1.85	7	100	
				Pithomyces	1	7	0.393	7	100	

A2-S3

SAMPLE RESULTS - 08

Collected date/time: 07/29/21 17:58

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed	Analyte	Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time			Spores/m3	%	Spores/m3	%	
				Total		1780				

A2-S4

SAMPLE RESULTS - 09

Collected date/time: 07/29/21 00:00

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed	Analyte	Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time			Spores/m3	%	Spores/m3	%	
A2-S4	L1385026-09	Area 2-10-30min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Ascospores	3	20	1.26	7	100	
				Basidiospores	202	1350	84.9	7	100	
				Bipolaris/Drechslera	1	7	0.440	7	100	
				Cladosporium	16	107	6.73	7	100	
				Curvularia	1	7	0.440	7	100	
				Penicillium/Aspergillus	12	80	5.03	7	100	
				Smuts,Myxomycetes,Periconia	1	7	0.440	7	100	
				Pithomyces	1	7	0.440	7	100	
				Total		1590				

A2-S5

SAMPLE RESULTS - 10

Collected date/time: 07/29/21 00:00

L1385026

Method ENV-SOP-MTJL-0235

Client ID	Lab Sample ID	Location	Analyzed	Analyte	Raw Count	Result	Percent of Total	AS	Percent of Slide Read	Qualifier
			date/time			Spores/m3	%	Spores/m3	%	
A2-S5	L1385026-10	Area 2-10-40min	08/05/2021 10:59	Volume(liters)	150	-		-		
				Background Debris*	Heavy	-		-		
				Basidiospores	152	1010	87.8	7	100	
				Cladosporium	13	87	7.57	7	100	
				Curvularia	1	7	0.609	7	100	
				Penicillium/Aspergillus	6	40	3.48	7	100	
				Smuts,Myxomycetes,Periconia	1	7	0.609	7	100	
				Total		1150				

A1-S1

Collected date/time: 07/29/21 14:32

SAMPLE RESULTS - 11

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S1	L1385026-11	Area 1-10-0min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Yeasts	283	1740	4	
				Total		1740		

A1-S2

Collected date/time: 07/29/21 16:44

SAMPLE RESULTS - 12

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S2	L1385026-12	Area 1-10-10min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Cladosporium	9	32	4	
				Non-sporulating fungi	1	4	4	
				Penicillium	1	4	4	
				Yeasts	2	7	4	
				Total		47		

A1-S3

Collected date/time: 07/29/21 16:56

SAMPLE RESULTS - 13

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S3	L1385026-13	Area 1-10-20min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Yeasts	48	181	4	
				Total		181		

A1-S4

Collected date/time: 07/29/21 17:12

SAMPLE RESULTS - 14

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S4	L1385026-14	Area 1-10-30min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Non-sporulating fungi	1	4	4	
				Yeasts	32	118	4	
				Total		122		

A1-S5

Collected date/time: 07/29/21 17:24

SAMPLE RESULTS - 15

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S5	L1385026-15	Area 1-10-40min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Cladosporium	13	47	4	
				Non-sporulating fungi	2	7	4	
				Penicillium	2	7	4	
				Yeasts	44	165	4	
				Total		226		

A2-S1

Collected date/time: 07/29/21 14:56

SAMPLE RESULTS - 16

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S1	L1385026-16	Area 2-10-0min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Yeasts	49	184	4	
				Total		184		

A2-S2

Collected date/time: 07/29/21 17:45

SAMPLE RESULTS - 17

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S2	L1385026-17	Area 2-10-10min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Cladosporium	1	4	4	
				Non-sporulating fungi	1	4	4	
				Yeasts	41	153	4	
				Total		161		

A2-S3

Collected date/time: 07/29/21 17:58

SAMPLE RESULTS - 18

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S3	L1385026-18	Area 2-10-20min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Cladosporium	37	137	4	
				Non-sporulating fungi	5	18	4	
				Penicillium	12	43	4	
				Yeasts	5	18	4	
				Total		216		

A2-S4

Collected date/time: 07/29/21 00:00

SAMPLE RESULTS - 19

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S4	L1385026-19	Area 2-10-30min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Cladosporium	39	145	4	
				Non-sporulating fungi	6	21	4	
				Penicillium	10	36	4	
				Yeasts	48	181	4	
				Total		383		

A2-S5

Collected date/time: 07/29/21 00:00

SAMPLE RESULTS - 20

L1385026

Method ENV-SOP-MTJL-0236

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S5	L1385026-20	Area 2-10-40min	08/06/2021 15:49	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	MEA	-	-	
				Cladosporium	2	7	4	
				Non-sporulating fungi	1	4	4	
				Yeasts	49	184	4	
				Fusarium-like	1	4	4	
				Total		199		

A1-S1

Collected date/time: 07/29/21 14:32

SAMPLE RESULTS - 21

L1385026

Method ENV-SOP-MTJL-0249

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S1	L1385026-21	Area 1-10-0min	08/09/2021 10:30	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	TSA	-	-	
				Gram positive cocci-Type I	94	379	4	
				Gram positive cocci-Type II	1	4	4	
				Gram Positive Cocci Type III	2	7	4	
				Total		390		

A1-S3

Collected date/time: 07/29/21 16:56

SAMPLE RESULTS - 22

L1385026

Method ENV-SOP-MTJL-0249

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S3	L1385026-22	Area 1-10-20min	08/09/2021 10:30	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	TSA	-	-	
				Gram negative bacilli-Type I	3	11	4	
				Gram negative bacilli-Type II	5	18	4	
				Gram positive bacilli-Type I	1	4	4	
				Gram positive cocci-Type I	11	39	4	
				Gram negative cocci	4	14	4	
				Total		86		

A1-S5

Collected date/time: 07/29/21 17:24

SAMPLE RESULTS - 23

L1385026

Method ENV-SOP-MTJL-0249

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A1-S5	L1385026-23	Area 1-10-40min	08/09/2021 10:30	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	TSA	-	-	
				Gram positive cocci-Type I	30	110	4	
				Gram positive cocci-Type II	10	36	4	
				Gram positive cocci Type IV	12	43	4	
				Gram Positive Cocci Type V	1	4	4	
				Total		193		

A2-S1

Collected date/time: 07/29/21 14:56

SAMPLE RESULTS - 24

L1385026

Method ENV-SOP-MTJL-0249

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S1	L1385026-24	Area 2-10-0min	08/09/2021 10:30	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	TSA	-	-	
				Gram negative bacilli-Type I	1	4	4	
				Gram positive cocci-Type I	356	3120	4	
				Gram Negative Bacilli Type III	1	4	4	
				Gram Negative Bacilli Type IV	1	4	4	
				Total		3130		

A2-S3

Collected date/time: 07/29/21 17:58

SAMPLE RESULTS - 25

L1385026

Method ENV-SOP-MTJL-0249

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S3	L1385026-25	Area 2-10-20min	08/09/2021 10:30	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	TSA	-	-	
				Gram positive cocci-Type I	39	145	4	
				Gram Positive Cocci III	1	4	4	
				Gram positive cocci Type IV	1	4	4	
				Total		153		

Method ENV-SOP-MTJL-0249

Client ID	Lab Sample ID	Location	Analyzed date/time	Analyte	Raw Count	Result CFU/m3	AS CFU/m3	Qualifier
A2-S5	L1385026-26	Area 2-10-40min	08/09/2021 10:30	Volume(liters)	283	-	-	
				PHCC	400	-	-	
				Medium Used	TSA	-	-	
				Actinomycete	1	4	4	
				Gram negative bacilli-Type II	2	7	4	
				Gram positive cocci-Type I	13	47	4	
				Gram positive cocci-Type II	1	4	4	
				Gram negative cocci	3	11	4	
				Total		73		

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

AS	Analytical Sensitivity - The lowest concetration that can be detected by the method caclulated to reporting limits.
CFU	Colony Forming Units.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
GEOServices, LLC
163 Business Park Drive Suite 15
Lebanon, TN 37087

Billing Information:

Report to: Michael Kendall

Email To: MKENDALL @geoservicesllc.com

Project Description: LIMESTONE HEALTH

Phone: **(615) 708-6275**
Fax:

Client Project # 34-214178

Collected by (print): MIKE KENDALL

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 175%
___ Two Day 150%

Date Results Needed: SD

Email? ___No X Yes
FAX? ___No ___Yes

Analysis

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1385026

Table #

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Sample Description (Turn time)	Type *	Volume or Area	Date	Time	SPORE TRAP	DIRECT EXAM	QUANTITATIVE FUNGAL	CULTURABLE AIR FUNGI (ANDERSEN)	QUANTITATIVE BACTERIA	CULTURABLE AIR BACTERIA (ANDERSEN)	*E. COLI* / COLIFORM (presence/absence)	*ENTEROCOCCUS* (presence/absence)			Rem./Contaminant	Sample # (lab only)
A1-S1	Area1 ~~hallway~~ 10-0 MIN	AF ST	150/280	7/29	1432	X			X		X					blue 150 = ST blue 280 = AND	-01/-11/-21
~~A2~~-S2	" 10MIN	AF ST			1644	X			X								-02/-12/
A1-S3	" 20MIN	AF ST			1656	X			X		X						-03/-13/-22
A1-S4	" 30MIN	AF ST			1712	X			X								-04/-14/
S1-S5	" 40MIN	AF ST			1729	X			X		X						-05/-15/-23
A2-S1	Area 2 ~~hallway~~ 10-0MIN	AF ST			1456	X			X		X						-06/-16/-24
A2-S2	" 10MIN	AF ST			1745	X			X								-07/-17/
A2-S3	" 20MIN	AF ST			1758	X			X		X						-08/-18/-25
A2-S4	" 30MIN	AF ST				X			X								-09/-19/
A2-S5	" 40MIN	AF ST				X			X		X						-10/-20/-26

* Type: **Tape** - Tapelift **Bulk** - Bulk **Swab** - Swab **CP** - Contact Plate **SS** - Soil **W** - Water **ST** - Spore Trap:Allergenco, Zefon, Air -O -Cell **AF** - Andersen Fungal **AB** - Andersen Bacterial

Remarks: Packed on ice-blue ice PACKS 1663 5745 7210

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/29/21		FED-EX
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____

Temp: 2.8 °C Bottles Received: 26

Date: 7.31.21 Time: 0915

Condition: (lab use only)

COC Seal Intact: ___Y ___N ✓NA

pH Checked: NCF:

Darren Reeder

From:	Derek Kilday <dkilday@geoservicesllc.com>
Sent:	Friday, August 06, 2021 4:18 PM
To:	Darren Reeder
Cc:	Jerry Gammon; michael@errmllc.com
Subject:	Projects L1378389 and L1385026
Attachments:	File Release - Mike Kendall.pdf

Darren,

Please find the attached letter outlining our desire to release the results and subsequent invoicing for the projects detailed above to Mike and ERRM.

Let me start by saying we greatly appreciate you protecting GEOS interests in this manner. That being said we have agreed to release the results for these two projects to Mike.

Let me know if you need anything else from us on this project.

Thanks,

DEREK K. KILDAY, P.E.
V.P. – CHATTANOOGA AREA MANAGER

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