Liberty OHM
Established 1989

May 9, 2016

Mr. Marty Foutch
Facilities Director
Bixby Public Schools
109 N. Armstrong
Bixby, OK 74008

RE: Bixby Northeast Elementary and Intermediate – 25% IAQ
Liberty OHM File Number 15-183

CC: Richard Walters
Maintenance Department

Dear Mr. Foutch:

On April 25th, 2016, Liberty OHM conducted quality assurance testing at Bixby North Elementary. A total of 25% of the rooms were selected and tested at random for indoor air quality (spore count).

Findings

On April 25th, 12 classrooms, for a total of 25% of Bixby Northeast Elementary and Intermediate, were selected at random and tested. The ratio of total indoor/outdoor airborne mold concentrations was elevated in Room W101 on the day of testing.

The following observations were noted:

- In Room W101 of Bixby Northeast Elementary and Intermediate elevated concentrations of the water intrusion/indicator mold Ulocladium were found.

- A re-test and inspection of this room was conducted on May 2nd, 2016, to verify whether or not any condition exists that would need follow-up repairs, cleaning or abatement.

- The inspection did not reveal any significant findings. No visible mold was found on the day of the follow-up inspection. No carpet staining, water stained ceiling tiles or other concerns were noted in Room W101. Air quality results on this day revealed normal indoor air quality conditions.

Table 1 shows the results of the air samples taken from the selected rooms on April 25th during normal school hours. Table 2 shows the results of the air samples taken from the follow-up inspection conducted on May 2nd.

Recommendations

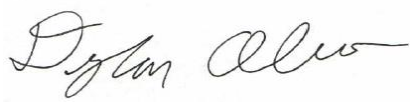
- No recommendations are provided at this time.

Disclaimer

Liberty OHM makes no assertion as to the health risks associated with the levels reported in this report. We make no correlation that the levels reported are safe for occupancy or do not pose a risk from exposure. We advise you, our client to consult with an Occupational Health or other qualified physician for additional information and guidance.

If you have questions or need additional information, please let me know.

Sincerely,



Dylan Albert, B.S.
EHS Consultant
Liberty OHM

Jack Kerr, B.S.
EHS Project Manager
Liberty OHM

Table 1 Bixby Northeast Elementary and Intermediate 25% Random Air Monitoring Survey Date: April 25th, 2016					
Location	**Total spores/m3**	**Species**	**Raw count**	**Calc. count**	**% of total**
1: Outside Reference - Pre IAQ	6,100	Basidiospores	115	3,100	50
		Cladosporium	76	2,000	33
		Ascospores	29	770	13
		Smuts, Periconia, Myxomycetes	12	80	1
		Penicillium/Aspergillus types	3	80	1
		Epicoccum	3	20	< 1
		Curvularia	3	20	< 1
		Other brown	2	13	< 1
		Oidium	2	13	< 1
		Torula	1	7	< 1
		Pithomyces	1	7	< 1
		Cercospora	1	7	< 1
		Alternaria	1	7	< 1
2: Computer Lab	350	Cladosporium	5	130	38
		Basidiospores	3	80	23
		Penicillium/Aspergillus types	2	53	15
		Bipolaris/Drechslera group	4	27	8
		Alternaria	3	20	6
		Smuts, Periconia, Myxomycetes	2	13	4
		Other brown	2	13	4
		Epicoccum	2	13	4
3: W102	33	Basidiospores	1	27	80
		Smuts, Periconia, Myxomycetes	1	7	20

Table 1 Bixby Northeast Elementary and Intermediate 25% Random Air Monitoring Survey Date: April 25th, 2016					
Location	**Total spores/m3**	**Species**	**Raw count**	**Calc. count**	**% of total**
4: W104	270	Penicillium/Aspergillus types	2	53	20
		Bipolaris/Drechslera group	8	53	20
		Smuts, Periconia, Myxomycetes	4	27	10
		Basidiospores	1	27	10
		Ascospores	1	27	10
		Alternaria	4	27	10
		Other brown	3	20	8
		Ulocladium	1	7	3
		Torula	1	7	3
		Nigrospora	1	7	3
		Epicoccum	1	7	3
		Arthrinium	1	7	3
5: W101	650	Cladosporium	12	320	49
		Ulocladium	10	67	10
		Basidiospores	2	53	8
		Alternaria	7	47	7
		Other brown	6	40	6
		Epicoccum	6	40	6
		Penicillium/Aspergillus types	1	27	4
		Smuts, Periconia, Myxomycetes	3	20	3
		Bipolaris/Drechslera group	3	20	3
		Arthrinium	2	13	2
		Oidium	1	7	1
6: W112	130	Penicillium/Aspergillus types	1	27	20
		Cladosporium	1	27	20
		Basidiospores	1	27	20
		Other brown	3	20	15
		Bipolaris/Drechslera group	2	13	10
		Smuts, Periconia, Myxomycetes	1	7	5
		Epicoccum	1	7	5
		Arthrinium	1	7	5

Table 1 Bixby Northeast Elementary and Intermediate 25% Random Air Monitoring Survey Date: April 25th, 2016					
Location	**Total spores/m3**	**Species**	**Raw count**	**Calc. count**	**% of total**
7: W109	40	Penicillium/Aspergillus types	1	27	67
		Smuts, Periconia, Myxomycetes	1	7	17
		Bipolaris/Drechslera group	1	7	17
8: E103	1,600	Cladosporium	31	830	51
		Basidiospores	18	480	30
		Ascospores	4	110	7
		Penicillium/Aspergillus types	2	53	3
		Smuts, Periconia, Myxomycetes	5	33	2
		Alternaria	5	33	2
		Scopulariopsis	1	27	2
		Torula	3	20	1
		Other brown	2	13	1
		Other colorless	1	7	< 1
		Nigrospora	1	7	< 1
		Epicoccum	1	7	< 1
		Cercospora	1	7	< 1
		Bipolaris/Drechslera group	1	7	< 1
9: E104	160	Cladosporium	2	53	33
		Basidiospores	2	53	33
		Penicillium/Aspergillus types	1	27	17
		Other brown	2	13	8
		Smuts, Periconia, Myxomycetes	1	7	4
		Bipolaris/Drechslera group	1	7	4
10: E201	230	Basidiospores	4	110	46
		Penicillium/Aspergillus types	2	53	23
		Cladosporium	1	27	11
		Ascospores	1	27	11
		Smuts, Periconia, Myxomycetes	2	13	6
		Curvularia	1	7	3

Table 1
Bixby Northeast Elementary and Intermediate
25% Random Air Monitoring
Survey Date: April 25th, 2016

Location	Total spores/m3	Species	Raw count	Calc. count	% of total
11: Science	110	Basidiospores	2	53	47
		Cladosporium	1	27	24
		Ascospores	1	27	24
		Smuts, Periconia, Myxomycetes	1	7	6
12: W208	93	Cladosporium	1	27	29
		Basidiospores	1	27	29
		Smuts, Periconia, Myxomycetes	2	13	14
		Epicoccum	1	7	7
		Bipolaris/Drechslera group	1	7	7
		Arthrinium	1	7	7
		Alternaria	1	7	7
13: W211	67	Cladosporium	2	53	80
		Other brown	1	7	10
		Alternaria	1	7	10
14: Post Outside Reference	6,100	Basidiospores	53	3,700	60
		Cladosporium	65	1,700	28
		Ascospores	12	320	5
		Epicoccum	17	110	2
		Penicillium/Aspergillus types	3	80	1
		Smuts, Periconia, Myxomycetes	8	53	1
		Alternaria	7	47	1
		Curvularia	5	33	1
		Other brown	3	20	< 1
		Pithomyces	1	7	< 1
		Cercospora	1	7	< 1
		Arthrinium	1	7	< 1

Table 2

Bixby Northeast Elementary and Intermediate

25% Random Air Monitoring – Follow-up Sampling

Survey Date: May 2nd, 2016

Location	Total spores/m3	Species	Raw count	Calc. count	% of total
1: W-101	40	Penicillium/Aspergillus types	2	13	33
		Other brown	1	7	17
		Epicoccum	1	7	17
		Cladosporium	1	7	17
		Bipolaris/Drechslera group	1	7	17
2: Outside Reference	8,100	Basidiospores	163	4,300	54
		Ascospores	113	3,000	37
		Cladosporium	22	590	7
		Penicillium/Aspergillus types	2	53	1
		Cercospora	3	20	< 1
		Other colorless	2	13	< 1
		Smuts, Periconia, Myxomycetes	1	7	< 1
		Other brown	1	7	< 1
		Alternaria	1	7	< 1

APPENDIX A

LABORATORY RESULTS

EMLab P&K
A TestAmerica Company

Report for:

Dylan Albert
Liberty OHM
1211 E 39th St
Tulsa, OK 74105

Regarding: Project: 15-183; Bixby NE Elem
EML ID: 1530356

Approved by:

Operations Manager
Joshua Cox

Dates of Analysis:
Spore trap analysis: 04-28-2016

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #102297

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Liberty OHM
C/O: Dylan Albert
Re: 15-183; Bixby NE Elem

Date of Sampling: 04-25-2016
Date of Receipt: 04-26-2016
Date of Report: 04-28-2016

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	1: Outside Reference - Pre IAQ				2: Computer Lab				3: W102				4: W104			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	7085731-1				7085732-1				7085733-1				7085734-1			
Analysis Date:	04/28/2016				04/28/2016				04/28/2016				04/28/2016			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	3+				4+				3+				4+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	8	53	7	n/a	13	87	7	n/a					9	60	7	n/a
Pollen	14	93	7	n/a	2	13	7	n/a					4	27	7	n/a
§ TOTAL FUNGAL SPORES	249	6,100	n/a	100	23	350	n/a	100	2	33	n/a	100	28	270	n/a	100
Alternaria	1	7	7	< 1	3	20	7	6					4	27	7	10
Arthrinium													1	7	7	3
Ascospores	29	770	27	13									1	27	27	10
Basidiospores	115	3,100	27	50	3	80	27	23	1	27	27	80	1	27	27	10
Bipolaris/Drechslera group					4	27	7	8					8	53	7	20
Cercospora	1	7	7	< 1												
Chaetomium																
Cladosporium	76	2,000	27	33	5	130	27	38								
Curvularia	3	20	7	< 1												
Epicoccum	3	20	7	< 1	2	13	7	4					1	7	7	3
Nigrospora													1	7	7	3
Oidium	2	13	7	< 1												
Other brown	2	13	7	< 1	2	13	7	4					3	20	7	8
Penicillium/Aspergillus types	3	80	27	1	2	53	27	15					2	53	27	20
Pithomyces	1	7	7	< 1												
Smuts, Periconia, Myxomycetes	12	80	7	1	2	13	7	4	1	7	7	20	4	27	7	10
Stachybotrys																
Torula	1	7	7	< 1									1	7	7	3
Ulocladium													1	7	7	3

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 analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

*The DL/m3 has been rounded to a whole number.

††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.

‡ 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".
§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Liberty OHM
C/O: Dylan Albert
Re: 15-183; Bixby NE Elem

Date of Sampling: 04-25-2016
Date of Receipt: 04-26-2016
Date of Report: 04-28-2016

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	5: W101				6: W112				7: W109				8: E103			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	7085735-1				7085736-1				7085737-1				7085738-1			
Analysis Date:	04/28/2016				04/28/2016				04/28/2016				04/28/2016			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	4+				3+				3+				2+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	14	93	7	n/a	3	20	7	n/a	1	7	7	n/a	4	27	7	n/a
Pollen	8	53	7	n/a					1	7	7	n/a	5	33	7	n/a
§ TOTAL FUNGAL SPORES	53	650	n/a	100	11	130	n/a	100	3	40	n/a	100	76	1,600	n/a	100
Alternaria	7	47	7	7									5	33	7	2
Arthrinium	2	13	7	2	1	7	7	5								
Ascospores													4	110	27	7
Basidiospores	2	53	27	8	1	27	27	20					18	480	27	30
Bipolaris/Drechslera group	3	20	7	3	2	13	7	10	1	7	7	17	1	7	7	< 1
Cercospora													1	7	7	< 1
Chaetomium																
Cladosporium	12	320	27	49	1	27	27	20					31	830	27	51
Epicoccum	6	40	7	6	1	7	7	5					1	7	7	< 1
Nigrospora													1	7	7	< 1
Oidium	1	7	7	1												
Other brown	6	40	7	6	3	20	7	15					2	13	7	1
Other colorless													1	7	7	< 1
Penicillium/Aspergillus types	1	27	27	4	1	27	27	20	1	27	27	67	2	53	27	3
Scopulariopsis													1	27	27	2
Smuts, Periconia, Myxomycetes	3	20	7	3	1	7	7	5	1	7	7	17	5	33	7	2
Stachybotrys																
Torula													3	20	7	1
Ulocladium	10	67	7	10												

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.

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Client: Liberty OHM
C/O: Dylan Albert
Re: 15-183; Bixby NE Elem

Date of Sampling: 04-25-2016
Date of Receipt: 04-26-2016
Date of Report: 04-28-2016

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	9: E104				10: E201				11: Science				12: W208			
Comments (see below)	None				None				None				None			
Lab ID-Version‡:	7085739-1				7085740-1				7085741-1				7085742-1			
Analysis Date:	04/28/2016				04/28/2016				04/28/2016				04/28/2016			
Sample volume (liters)	150				150				150				150			
Background debris (1-4+)††	3+				1+				1+				3+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	2	13	7	n/a					1	7	7	n/a	3	20	7	n/a
Pollen																
§ TOTAL FUNGAL SPORES	9	160	n/a	100	11	230	n/a	100	5	110	n/a	100	8	93	n/a	100
Alternaria													1	7	7	7
Arthrinium													1	7	7	7
Ascospores					1	27	27	11	1	27	27	24				
Basidiospores	2	53	27	33	4	110	27	46	2	53	27	47	1	27	27	29
Bipolaris/Drechslera group	1	7	7	4									1	7	7	7
Chaetomium																
Cladosporium	2	53	27	33	1	27	27	11	1	27	27	24	1	27	27	29
Curvularia					1	7	7	3								
Epicoccum													1	7	7	7
Other brown	2	13	7	8												
Penicillium/Aspergillus types	1	27	27	17	2	53	27	23								
Smuts, Periconia, Myxomycetes	1	7	7	4	2	13	7	6	1	7	7	6	2	13	7	14
Stachybotrys																

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 analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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††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.

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

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(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Liberty OHM
C/O: Dylan Albert
Re: 15-183; Bixby NE Elem

Date of Sampling: 04-25-2016
Date of Receipt: 04-26-2016
Date of Report: 04-28-2016

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	13: W211				14: Post Outside Reference			
Comments (see below)	None				None			
Lab ID-Version‡:	7085743-1				7085744-1			
Analysis Date:	04/28/2016				04/28/2016			
Sample volume (liters)	150				150			
Background debris (1-4+)††	2+				3+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	2	13	7	n/a	7	47	7	n/a
Pollen					13	87	7	n/a
§ TOTAL FUNGAL SPORES	4	67	n/a	100	176	6,100	n/a	100
Alternaria	1	7	7	10	7	47	7	1
Arthrinium					1	7	7	< 1
Ascospores					12	320	27	5
Basidiospores					53	3,700	69	60
Cercospora					1	7	7	< 1
Chaetomium								
Cladosporium	2	53	27	80	65	1,700	27	28
Curvularia					5	33	7	1
Epicoccum					17	110	7	2
Other brown	1	7	7	10	3	20	7	< 1
Penicillium/Aspergillus types					3	80	27	1
Pithomyces					1	7	7	< 1
Smuts, Periconia, Myxomycetes					8	53	7	1
Stachybotrys								

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.

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CHAIN OF CUSTODY

EMLab P&K

www.EMLabPK.com

Marlton, NJ: 3000 Lincoln Drive East,Suite A Marlton, NJ 08053 (866) 871-1984
Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * (800) 651-4802
S. San Francisco, CA: 6000
Shoriine Ct. Ste 203, S. San Francisco, CA 94080 * (866) 866-6653

WEATHER	Fog	Rain	Snow	Wind	Clear
LEVEL None					
Light					
Moderate					X
Heavy					

Non-C... Spore Trap ... oxes)

001530356

Other Requests

CONTACT INFORMATION

Company: Liberty OHM (12589)
Address: 1211 E. 39th St., Tulsa, OK 74105
Contact: Dylan Albert
Special Instructions:Please E-Mail Results to Dylan@libertyohm.com
Phone/Email:918- 845-0122 / Dylan@libertyohm.com
1 of 2

PROJECT INFORMATION

Project ID: 15-163
Project Desc.: Bixby NE Elem
Project Zip Code:
Sampling Date & Time: 4-25-16
PO Number:

TURN AROUND TIME CODES - (TAT)

STD - Standard (DEFAULT)
ND - Next Business Day
SD - Same Business Day Rush
WH - Weekend/Holiday

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as ...	NOTES (Time of day, Temp, RH, etc.)
1	Outside Reference- pre IAR	ST	STD	150	
2	computer lab				
3	W102				
4	W104				
5	W 101				
6	W 112				
7	W 109				
8	E 103				
9	E 104				
10	E201				
11	Science				
12	W206				

Sample ID	Fungi - Spore Trap Analysis	Spore Trap Analysis - Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + Asp. spp.)	2-Media Surface Fungi (Genus ID + Asp. spp.)	3-Media Surface Fungi (Genus ID + Asp. spp.)	Culturable Air Fungi (Genus ID + Asp. spp.)	Gram Stain and Counts (Culturable Air and Surface Bacte	Legionella culture	Total Coliform, E.coli (Presence/Absence)	Membrane Filtration (Please specify organism)	MPN Bacteria (Please specify organism)	QuantiTray - Sewage Screen	Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 740	Asbestos Analysis - PLM (EPA method 600/R-93-116)	PCR (please specify test)
1	X																
2	X																
3	X																
4	X																
5	X																
6	X																
7	X																
8	X																
9	X																
10	X																
11	X																
12	X																

SAMPLE TYPE CODES

BC - BioCassette™	ST - Spore Trap: Zefon, Allergenco, Burkard...	T - Tape	D - Dust
A1S - Andersen		SW - Swab	SO - Soil
SAS - Surface Air Sampler	P - Potable Water	B - Bulk	
CP - Contact Plate	NP - Non-Potable Water	O - Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
FedEx 9:50	4-25-16		
	4/26/16		

CHAIN OF CUSTODY

EMLab P&K

www.EMLabPK.com

Marlton, NJ: 3000 Lincoln Drive East,Suite A Marlton, NJ 08053 (856) 871-1984
Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * (800) 661-4802
S. San Francisco, CA: 6000
Shoreline Ct. Ste 203, S. San Francisco, CA 94080 * (866) 888-6653

WEATHER	Fog	Rain	Snow	Wind	Clear
LEVEL None					
Light					
Moderate					
Heavy					X

001530356

Non-Culturable

Spore Trap | Tape Swab Bulk | Water, Swab, Plate | Other Requests

CONTACT INFORMATION

Company: Liberty OHM (12589)

Address: 1211 E. 39th St., Tulsa, OK 74105

Contact: Dylan Albert

Special Instructions:Please E-Mail Results to Dylan@libertyohm.com

Phone/Email:918- 845-0122 / Dylan@libertyohm.com

2 of 2

PROJECT INFORMATION

Project ID: 15-1463

Project Desc.: Bixby NE Elem

Project Zip Code:

Sampling Date & Time: 4-25-16

PO Number:

TURN AROUND TIME CODES - (TAT)

STD - Standard (DEFAULT)

ND - Next Business Day

SD - Same Business Day Rush

WH - Weekend/Holiday

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as	NOTES (Time of day, Temp, RH, etc.)
13	W211	ST	STD	150L	
14	Post outside Reference	L	L	L	

Fungi - Spore Trap Analysis	Spore Trap Analysis - Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + *Asp.* spp.)	2-Media Surface Fungi (Genus ID + *Asp.* spp.)	3-Media Surface Fungi (Genus ID + *Asp.* spp.)	Culturable Air Fungi (Genus ID + *Asp.* spp.)	Gram Stain and Counts (Culturable Air and Surface Bacteria)	*Legionella* culture	Total Coliform, *E.coli* (Presence/Absence)	Membrane Filtration (Please specify organism)	MPN Bacteria (Please specify organism)	QuantiTray - Sewage Screen	Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 740)	Asbestos Analysis - PLM (EPA method 600/R-93-116)	PCR (please specify test)
X																

SAMPLE TYPE CODES

BC - BioCassette™	ST - Spore Trap: Zefon, Allergenco, Burkard...	T - Tape	D - Dust
A1S - Andersen		SW - Swab	SO - Soil
SAS - Surface Air Sampler	P - Potable Water	B - Bulk	
CP - Contact Plate	NP - Non-Potable Water	O - Other:	

RELINQUISHED BY	DATE & TIME
Dylan	4-25-16

RECEIVED BY	DATE & TIME

EMLab P&K
A TestAmerica Company

Report for:

Jack Kerr
Liberty OHM
1211 E 39th St
Tulsa, OK 74105

Regarding: Project: 15-183; Bixby Northeast Elem. And Inter.
EML ID: 1533962

Approved by:

Operations Manager
Joshua Cox

Dates of Analysis:
Spore trap analysis: 05-05-2016

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #102297

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Liberty OHM
C/O: Jack Kerr
Re: 15-183; Bixby Northeast Elem. And Inter.

Date of Sampling: 05-02-2016
Date of Receipt: 05-03-2016
Date of Report: 05-05-2016

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	1: W-101				2: Outside Reference			
Comments (see below)	None				None			
Lab ID-Version‡:	7104128-1				7104129-1			
Analysis Date:	05/05/2016				05/05/2016			
Sample volume (liters)	150				150			
Background debris (1-4+)††	2+				2+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments					1	7	7	n/a
Pollen	1	7	7	n/a	1	7	7	n/a
§ TOTAL FUNGAL SPORES	6	40	n/a	100	308	8,100	n/a	100
Alternaria					1	7	7	< 1
Ascospores					113	3,000	27	37
Basidiospores					163	4,300	27	54
Bipolaris/Drechslera group	1	7	7	17				
Cercospora					3	20	7	< 1
Chaetomium								
Cladosporium	1	7	7	17	22	590	27	7
Epicoccum	1	7	7	17				
Other brown	1	7	7	17	1	7	7	< 1
Other colorless					2	13	7	< 1
Penicillium/Aspergillus types	2	13	7	33	2	53	27	1
Smuts, Periconia, Myxomycetes					1	7	7	< 1
Stachybotrys								

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 analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

*The DL/m3 has been rounded to a whole number.

††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.

‡ 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".
§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

CHAIN OF CUSTODY

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

Weather	Fog	Rain	Snow	Wind	Clear
Level: None	☐	☐	☐	☐	X
Light	☐	☐	☐	☐	
Moderate	☐	☐	☐	☐	
Heavy	☐	☐	☐	☐	

001533962

CONTACT INFORMATION

Company:	Liberty OHM (12589)	Address: 1211 E 39th St Tulsa, OK 74105 USA
Contact:	Jack Kerr	Special Instructions:
Phone:	918-742-1567	

PROJECT INFORMATION

Project ID:	15-183		
Project Description:	Bixby Northeast Elem. w/ Izkr.		
Project Zip Code:		Sampling Date & Time:	5/2/16
PO Number:		Sampled By:	JWK

TURN AROUND TIME CODES (TAT)

- ~~STD – Standard (DEFAULT)~~ (circled)
- ND – Next Business Day
- SD – Same Business Day Rush
- WH – Weekend / Holiday

Rushes received after 2 pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)	Fungi – Spore Trap Analysis
1	W-101	ST	STD	150 L		☒
2	Outside Reference	⊥	⊥	⊥		☒

Non-Culturable: Spore Trap; Tape Swab Bulk

Analyses (columns):
- Fungi – Spore Trap Analysis
- Spore Trap Analysis – Other particles
- Direct Microscopic Exam (Qualitative)
- Quantitative Spore Count Direct Exam
- 1-Media Surface Fungi (Genus ID + *Asp.* spp.)
- 2-Media Surface Fungi (Genus ID + *Asp.* spp.)
- 3-Media Surface Fungi (Genus ID + *Asp.* spp.)
- Culturable Air Fungi (Genus ID + *Asp.* spp.)
- Gram Stain & Counts (Culturable Air & Surface Bacteria)
- Legionella culture
- Total Coliform, *E. coli* (*Presence/Absence*)
- Membrane Filtration (specify organism):
- MPN Bacteria (specify organism):
- QuantiTray – Sewage Screen
- Asbestos Analysis – PCM Airborne Fiber Count (NIOSH 7400)
- Asbestos Analysis – PLM (EPA method 600/R-93-116)
- PCR (specify test):

r Requests

SAMPLE TYPE CODES			
BC – BioCassette ™	ST – Spore Trap: Zefon, Allergenco, Burkard ...	T – Tape	D – Dust
A1S – Anderson		SW – Swab	SD – Bed
SAS – Surface Air Sampler	P – Potable Water	B – Bulk	
CP – Contact Plate	NP – Non-Potable Water	O – Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
[signature]	5/2/16 5pm		
[signature]	5/3/16 0824	[signature]	5/3/16 0812