

February 6, 2023

Ms. Christina Dell Angelo
Dore & Whittier Architects
260 Merrimac Street
Newburyport, MA 01950

Reference: Hazardous Materials Determination Survey
Fox Hill Elementary School, Burlington, MA

Dear Ms. Angelo:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for hazardous materials determination survey at Fox Hill Elementary School, Burlington, MA.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants



Ammar M. Dieb
President

UEC:\223 030.00\Report.DOC

Enclosure

**REPORT
FOR
HAZARDOUS MATERIALS DETERMINATION
SURVEY
AT THE
FOX HILL ELEMENTARY SCHOOL
BURLINGTON, MASSACHUSETTS**

PROJECT NO: 223 030.00

Survey Date:
January 30, 2023

SURVEY CONDUCTED BY:

**UNIVERSAL ENVIRONMENTAL CONSULTANTS
12 BREWSTER ROAD
FRAMINGHAM, MA 01702**

INTRODUCTION:

UEC has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-three years of experience.

UEC was contracted by Dore & Whittier Architects to conduct the following services at the Fox Hill Elementary School, Burlington, MA:

- Inspection and Testing for Asbestos Containing Materials (ACM).
- Inspection for Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures.
- Inspection for PCB's-Caulking.
- Inspection for Lead Based Paint (LBP).
- Airborne Mold inspection and sampling.
- Radon sampling.
- Mercury in Rubber Flooring inspection and sampling.

A comprehensive survey per the Environmental Protection Agency (EPA) NESHAP regulation would be required prior to any renovation or demolition activities.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) in accordance with EPA standard. Bulk samples were collected by a Massachusetts licensed asbestos inspector Mr. Jason Becotte (AI-034963) and analyzed by a Massachusetts licensed laboratory EMSL, Woburn, MA.

Airborne mold samples were analyzed by an EPA trained laboratory EMSL, Woburn, MA.

Radon samples were analyzed by an EPA licensed laboratory AccuStar, Ward Hill, MA.

Refer to samples results.

FINDINGS:***Asbestos Containing Materials (ACM):***

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed. All suspect materials were grouped into homogenous areas. By definition a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to be ACM based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount of 1 percent or greater in accordance with EPA regulations.

All suspect materials that contain any amount of asbestos must be considered asbestos if it is scheduled to be removed per the Department of Environmental Protection (DEP) regulations.

Number of Samples Collected

Sixty-four (64) bulk samples were collected from the following materials suspected of containing asbestos:

Type and Location of Material

1. Interior door glazing caulking at hallway
2. Interior door glazing caulking at room 22

3. Interior window glazing caulking at hallway
4. Interior window glazing caulking at hallway
5. Black sink coating at room 2
6. Black sink coating at room 20
7. Grey sink coating at library work room
8. Grey sink coating at library work room
9. 2' x 4' Suspended acoustical ceiling tile at generator room
10. 2' x 4' Suspended acoustical ceiling tile at teacher's room
11. Grey 12" x 12" vinyl floor tile at Pod 3 storage
12. Grey 12" x 12" vinyl floor tile at Pod 3 storage
13. Mastic for grey 12" x 12" vinyl floor tile at Pod 3 storage
14. Mastic for grey 12" x 12" vinyl floor tile at Pod 3 storage
15. White/grey 12" x 12" vinyl floor tile at hallway
16. White/grey 12" x 12" vinyl floor tile at room 2
17. Mastic for white/grey 12" x 12" vinyl floor tile at hallway
18. Mastic for white/grey 12" x 12" vinyl floor tile at room 2
19. Off white/grey 12" x 12" vinyl floor tile at room 10
20. Off white/grey 12" x 12" vinyl floor tile at room 21
21. Mastic for off white/grey 12" x 12" vinyl floor tile at room 10
22. Mastic for off white/grey 12" x 12" vinyl floor tile at room 21
23. White/grey streaks 12" x 12" vinyl floor tile at work room
24. White/grey streaks 12" x 12" vinyl floor tile at room 20
25. Mastic for white/grey streaks 12" x 12" vinyl floor tile at work room
26. Mastic for white/grey streaks 12" x 12" vinyl floor tile at room 20
27. White/light brown 12" x 12" vinyl floor tile at hallway along gymnasium
28. White/light brown 12" x 12" vinyl floor tile at Pod 3
29. Mastic for white/light brown 12" x 12" vinyl floor tile at hallway along gymnasium
30. Mastic for white/light brown 12" x 12" vinyl floor tile at Pod 3
31. Tan/brown 12" x 12" vinyl floor tile at kitchen bathroom
32. Tan/brown 12" x 12" vinyl floor tile at teacher's room
33. Mastic for tan/brown 12" x 12" vinyl floor tile at kitchen bathroom
34. Mastic for tan/brown 12" x 12" vinyl floor tile at teacher's room
35. Lime 12" x 12" vinyl floor tile at room 9
36. Lime 12" x 12" vinyl floor tile at room 9
37. Mastic for lime 12" x 12" vinyl floor tile at room 9
38. Mastic for lime 12" x 12" vinyl floor tile at room 9
39. Hard joint insulation at boiler room
40. Hard joint insulation at boiler room
41. Hard joint insulation at boiler room
42. Tank insulation at boiler room
43. Tank insulation at boiler room
44. Tank insulation at boiler room
45. Boiler exhaust insulation at boiler room
46. Boiler exhaust insulation at boiler room
47. Boiler exhaust insulation at boiler room
48. Textured plaster at entry portico
49. Textured plaster at entry portico
50. Textured plaster at entry portico
51. Textured plaster at entry portico
52. Textured plaster at entry portico
53. Round light gasket at entry portico
54. Round light gasket at entry portico
55. Exterior window framing caulking
56. Exterior window framing caulking

57. Exterior window framing caulking
58. Exterior window framing caulking
59. Exterior door framing caulking
60. Exterior door framing caulking
61. Exterior door framing caulking
62. Exterior expansion joint caulking
63. Exterior expansion joint caulking
64. Exterior expansion joint caulking

Samples Results

Type and Location of Material

Sample Result

1. Interior door glazing caulking at hallway	2% Asbestos
2. Interior door glazing caulking at room 22	2% Asbestos
3. Interior window glazing caulking at hallway	2% Asbestos
4. Interior window glazing caulking at hallway	2% Asbestos
5. Black sink coating at room 2	3% Asbestos
6. Black sink coating at room 20	3% Asbestos
7. Grey sink coating at library work room	4% Asbestos
8. Grey sink coating at library work room	4% Asbestos
9. 2' x 4' Suspended acoustical ceiling tile at generator room	No Asbestos Detected
10. 2' x 4' Suspended acoustical ceiling tile at teacher's room	No Asbestos Detected
11. Grey 12" x 12" vinyl floor tile at Pod 3 storage	5% Asbestos
12. Grey 12" x 12" vinyl floor tile at Pod 3 storage	5% Asbestos
13. Mastic for grey 12" x 12" vinyl floor tile at Pod 3 storage	10% Asbestos
14. Mastic for grey 12" x 12" vinyl floor tile at Pod 3 storage	10% Asbestos
15. White/grey 12" x 12" vinyl floor tile at hallway	No Asbestos Detected
16. White/grey 12" x 12" vinyl floor tile at room 2	No Asbestos Detected
17. Mastic for white/grey 12" x 12" vinyl floor tile at hallway	5% Asbestos
18. Mastic for white/grey 12" x 12" vinyl floor tile at room 2	5% Asbestos
19. Off white/grey 12" x 12" vinyl floor tile at room 10	8% Asbestos
20. Off white/grey 12" x 12" vinyl floor tile at room 21	7% Asbestos
21. Mastic for off white/grey 12" x 12" vinyl floor tile at room 10	10% Asbestos
22. Mastic for off white/grey 12" x 12" vinyl floor tile at room 21	10% Asbestos
23. White/grey streaks 12" x 12" vinyl floor tile at work room	4% Asbestos
24. White/grey streaks 12" x 12" vinyl floor tile at room 20	4% Asbestos
25. Mastic for white/grey streaks 12" x 12" vinyl floor tile at work room	8% Asbestos
26. Mastic for white/grey streaks 12" x 12" vinyl floor tile at room 20	7% Asbestos
27. White/light brown 12" x 12" vinyl floor tile at hallway along gymnasium	No Asbestos Detected
28. White/light brown 12" x 12" vinyl floor tile at Pod 3	No Asbestos Detected
29. Mastic for white/light brown 12" x 12" vinyl floor tile at hallway along gymnasium	3% Asbestos
30. Mastic for white/light brown 12" x 12" vinyl floor tile at Pod 3	3% Asbestos
31. Tan/brown 12" x 12" vinyl floor tile at kitchen bathroom	6% Asbestos
32. Tan/brown 12" x 12" vinyl floor tile at teacher's room	6% Asbestos
33. Mastic for tan/brown 12" x 12" vinyl floor tile at kitchen bathroom	6% Asbestos
34. Mastic for tan/brown 12" x 12" vinyl floor tile at teacher's room	7% Asbestos
35. Lime 12" x 12" vinyl floor tile at room 9	6% Asbestos
36. Lime 12" x 12" vinyl floor tile at room 9	6% Asbestos
37. Mastic for lime 12" x 12" vinyl floor tile at room 9	8% Asbestos
38. Mastic for lime 12" x 12" vinyl floor tile at room 9	7% Asbestos
39. Hard joint insulation at boiler room	2% Asbestos
40. Hard joint insulation at boiler room	2% Asbestos
41. Hard joint insulation at boiler room	3% Asbestos
42. Tank insulation at boiler room	65% Asbestos

43. Tank insulation at boiler room	65% Asbestos
44. Tank insulation at boiler room	65% Asbestos
45. Boiler exhaust insulation at boiler room	60% Asbestos
46. Boiler exhaust insulation at boiler room	60% Asbestos
47. Boiler exhaust insulation at boiler room	No Asbestos Detected
48. Textured plaster at entry portico	No Asbestos Detected
49. Textured plaster at entry portico	No Asbestos Detected
50. Textured plaster at entry portico	No Asbestos Detected
51. Textured plaster at entry portico	No Asbestos Detected
52. Textured plaster at entry portico	No Asbestos Detected
53. Round light gasket at entry portico	90% Asbestos
54. Round light gasket at entry portico	90% Asbestos
55. Exterior window framing caulking	4% Asbestos
56. Exterior window framing caulking	4% Asbestos
57. Exterior window framing caulking	3% Asbestos
58. Exterior window framing caulking	3% Asbestos
59. Exterior door framing caulking	No Asbestos Detected
60. Exterior door framing caulking	2% Asbestos
61. Exterior door framing caulking	2% Asbestos
62. Exterior expansion joint caulking	2% Asbestos
63. Exterior expansion joint caulking	3% Asbestos
64. Exterior expansion joint caulking	3% Asbestos

Observations and Conclusions:

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition or other activity.

1. Interior door glazing caulking was found to contain asbestos.
2. Interior window glazing caulking was found to contain asbestos.
3. Black sink coating was found to contain asbestos.
4. Grey sink coating was found to contain asbestos.
5. Various types of 12" x 12" vinyl floor tiles were found to contain asbestos.
6. Mastic for various types of 12" x 12" vinyl floor tiles were found to contain asbestos.
7. Hard joint insulation was found to contain asbestos.
8. Tank insulation was found to contain asbestos.
9. Boiler exhaust insulation was found to contain asbestos.
10. Round light gasket was found to contain asbestos.
11. Exterior window framing caulking was found to contain asbestos.
12. Exterior door framing caulking was found to contain asbestos.
13. Exterior expansion joint caulking was found to contain asbestos.
14. Brick within kiln in the boiler room was assumed to contain asbestos.
15. Glue holding chalk/tack boards was assumed to contain asbestos.
16. Bedding/grout for ceramic tiles was assumed to contain asbestos.
17. Paper/mastic under hardwood flooring were assumed to contain asbestos.
18. Insulation inside boilers was assumed to contain asbestos.
19. Insulation inside incinerator was assumed to contain asbestos.
20. Roofing material was assumed to contain asbestos. Roofing material does not have to be removed by a licensed asbestos contractor. However, the Demolition/Roofing Contractor must comply with OSHA regulation during demolition and with state regulations for proper disposal. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval
21. Dampproofing on exterior and foundation walls was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.

- 22. Underground sewer pipes were assumed to contain asbestos.
- 23. Thru-wall flashing was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
- 24. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during demolition activities.

Polychlorinated Biphenyls (PCB’s)-Electrical Equipment and Light Fixtures:

Observations and Conclusions

Visual inspection of various equipment such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB’s and mercury. Ballasts in light fixtures were assumed not to contain PCB’s since there were labels indicating that “No PCB’s” was found. Tubes in light fixtures, thermostats, signs and switches were assumed to contain mercury. It would be very costly to test those equipment and dismantling would be required to access. Therefore, the above-mentioned equipment should be disposed in an EPA approved landfill as part of the demolition project.

PCB’s in Caulking:

Observations and Conclusions

Caulking was assumed to contain PCB’s.

Lead Based Paint (LBP):

Observations and Conclusions

LBP was assumed to exist on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

Airborne Mold:

Airborne mold testing was performed utilizing Zefon International Incorporated’s Air-O-Cell® sampling device following all manufacturer supplied recommended sampling procedures.

The Air-O-Cell® is a direct read total particulate air sampling device. It works using the inertial impaction principle similar to other spore trap devices. It is designed for the rapid collection and analysis of airborne particulate including bioaerosols. The particulate includes fibers (e.g. asbestos, fiberglass, cellulose, clothing fibers) opaque particles (e.g. fly ash, combustion particles, copy toner, oil droplets, paint), and bioaerosols (e.g. mold spores, pollen, insect parts, skin cell fragments).¹

The method involves drawing a known quantity of air through a sterile sampling cassette. Subsequent to sampling, the cassette is sealed and transferred to a microbiology laboratory under chain of custody protocol for microscopic analysis. This method counts both viable and nonviable mold spores.

AIRBORNE MOLD and PARTICULATE

Lab ID #	Location	Total Mold Counts/M ³	Pollen	Insect Fragment	Hyphal Fragments
132300629-0001	Room 6	140	ND	ND	ND
132300629-0002	Room 2	ND	ND	ND	ND

¹ Zefon International Inc. <www.zefon.com>

Lab ID #	Location	Total Mold Counts/M ³	Pollen	Insect Fragment	Hyphal Fragments
132300629-0003	Room 16	100	20	ND	ND
132300629-0004	Room 20	20	ND	ND	40
132300629-0005	Room 27	ND	ND	ND	20
132300629-0006	Room 23	Present	ND	ND	Present
132300629-0007	Room 13	ND	ND	ND	ND
132300629-0008	Room 9	60	ND	ND	ND
132300629-0009	Library	80	ND	ND	ND
132300629-0010	Teacher's Room	100	ND	ND	ND
132300629-0011	Outside	140	ND	ND	20

**AIRBORNE MOLD and PARTICULATE
(Subjective Scales)**

Lab ID #	Location	Skin Fragment Density (SFD)	Fibrous Particulates (FP)	Total Background Particulate (TBP)
132300629-0001	Room 6	1	1	2
132300629-0002	Room 2	1	1	1
132300629-0003	Room 16	1	1	3
132300629-0004	Room 20	1	1	2
132300629-0005	Room 27	1	1	2
132300629-0006	Room 23	1	1	5
132300629-0007	Room 13	1	1	1
132300629-0008	Room 9	1	1	1
132300629-0009	Library	1	1	2
132300629-0010	Teacher's Room	1	1	3
132300629-0011	Outside	1	1	2

Legend:

ND - Not Detected

Observations:

There are currently no guidelines or standards promulgated by a government agency or widely recognized scientific organization for the interpretation of airborne mold spore levels. The most commonly employed tool used to assess if mold growth is occurring in a structure is to compare quantities and species of mold outdoors to indoor. If there were more mold indoor, and/or if species were present indoor which were not present outdoors, then growth is occurring, and remediation is recommended.

Based on comparisons with historical data from projects of similar type, building utilization, geographic location and season, the indoor airborne levels are considered average. Indoor mold spore counts in the winter are typically in the 500-1,500-spores/cubic meter range.

Pollen, insect fragments and Hyphal fragments were either not present or low in the samples. Hyphal fragment is a non-reproductive part of the mold.

Total background particulate on all samples was assessed as "1-5" on a scale of 1-5 where 1 is low and 5 is high. Skin fragment density on all samples was assessed as "1" on a scale of 1-4 where 1 is low and 4 is high. The total background levels are measured to determine airborne dust not related to airborne mold. Skin fragments are measured to determine proper housing cleaning.

Radon:

Number of Samples Collected

Ten (10) air samples were collected at the following locations:

Location of Sample

1. Room 6
2. Room 2
3. Room 16
4. Room 20
5. Room 27
6. Room 23
7. Room 13
8. Room 9
9. Library
10. Teacher's Room

Location of Sample

Sample Result

1. Room 6	0.8 pCi/L
2. Room 2	<0.4 pCi/L
3. Room 16	0.4 pCi/L
4. Room 20	0.4 pCi/L
5. Room 27	0.6 pCi/L
6. Room 23	<0.4 pCi/L
7. Room 13	0.6 pCi/L
8. Room 9	0.5 pCi/L
9. Library	1.1 pCi/L
10. Teacher's Room	0.5 pCi/L

Observations and Conclusions:

The measured radon concentrations of the samples were found to be much lower than the EPA guideline of 4 picoCuris of radon per liter of air (pCi/L). No further action is required based on the results.

Mercury in Rubber Flooring:

Observations and Conclusions:

No rubber flooring exists in the school.

COST ESTIMATES:

The cost includes removal and disposal of all accessible ACM, other hazardous materials and an allowance for removal and disposal of inaccessible or hidden ACM that may be found during the demolition project.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Various Locations	Flooring Materials and Mastic	37,000 SF	222,000.00
	Interior Windows/Doors	140 Total	42,000.00
	Sink Damproofing	30 Total	6,000.00
	Hard Joint Insulation	50 Total	4,500.00
	Chalkboards/Tackboards	65 Total	19,500.00
	Hidden Hard Joint Insulation	Unknown	25,000.00
	Miscellaneous Hazardous Materials	Unknown	15,000.00
	Light Fixtures	Unknown	37,500.00
Kitchen	Ceramic Tiles	1,600 SF	16,000.00
Gymnasium	Hardwood Flooring/Paper and Mastic	3,700 SF	37,000.00
Stage	Hardwood Flooring/Paper and Mastic	1,000 SF	10,000.00
Boiler Room	Hard Joint Insulation	60 Total	2,400.00
	Tank Insulation	110 SF	4,400.00
	Boiler Exhaust Insulation	250 SF	7,500.00
	Boilers	2 Total	18,000.00
	Incinerator	1 Total	11,500.00
	Kiln	1 Total	500.00
Exterior Portico	Round Light Gasket	25 Lights	7,500.00
Exterior	Windows	160 Total	64,000.00
	Doors	35 Total	7,000.00
	Expansion Joint	80 LF	2,400.00
	Transite Sewer Pipes	Unknown ¹	50,000.00
	Damproofing on Walls	2,000 Tons	400,000.00
	Roofing Materials	Unknown	80,000.00
PCB's Remediation ²			50,000.00
Estimated costs for PCB's Testing and Abatement Plans Services ²			10,000.00
Estimated costs for NESHAP Inspection and Testing Services			11,500.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			158,800.00
Total:			1,320,000.00
Total:			1,500,000.00³

¹: Part of total demolition. ²: Should results exceed EPA limit. ³: Work to be Performed by a CM at Risk Contractor.

DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA /600/R-93/116 method.

Airborne Mold:

The samples were analyzed by an EPA approved laboratory EMSL, Woburn, MA.

Radon:

Radon samples were analyzed by an EPA licensed laboratory AccuStar, Ward Hill, MA.

LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.

Inspected By:

A handwritten signature in cursive script that reads "Jason Becotte". The signature is written in black ink and is positioned above a horizontal line.

Jason Becotte
Asbestos Inspector

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM

24-hour TAT

Town/City: Burlington, MA Building Name Fox Hill School

Sample	Description of Material	Sample Location
1	Interior door glass glaze	Hallway
2	l l	Room 22
3	Interior window glaze	Hallway
4	l l	l l
5	Black sink coating	Room 2
6	l l	Room 20
7	Gray sink coating	Library work Room
8	l l	l l
9	2x4 SAT	Generator Room
10	l l	Teachers Room
11	Gray 12x12 VFT	Pod 3 storage
12	l l	
13	Black mastic	
14	l l	
15	White/Gray 12x12 VFT	Hallway
16	l l	Room 2
17	mastic	on # 15
18	l l	on # 16
19	off white/gray 12x12 VFT	Room 10
20	l l	Room 21

Reported By: Jason Becotte Date: 1-30-23 Due Date: **24-Hours**

Received By: _____ Date: _____

REC'D RHS 0830
 EMSL-BOSTON JAN 31 2023
DRP BLP

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM

Town/City: Burlington, MA Building Name Fox Hill school

Sample	Description of Material	Sample Location
21	Black mastic	on # 19
22	l l	on # 20
23	white w/gray streak 12x12	Work Room
24	l l	Room 20
25	Black mastic	on # 23
26	l l	on # 24
27	white/Light Brown 12x12 VFT	Hallway along gym
28	l l	Pod- 3
29	mastic	on # 27
30	l l	on # 28
31	Tan/Brown 12x12 VFT	Kitchen Bathroom
32	l l	Teachers Room
33	Black mastic	on # 31
34	l l	on # 32
35	Lime 12x12 VFT	Room 9
36	l l	
37	Black mastic	
38	l l	
39	Hard Joint Pipe Insulation	Boiler Room
40	l l	l l

Reported By: Jason Beotte Date: 1-30-23 Due Date: **24-Hours**

Received By: _____ Date: _____

REC'D RHS 0830
EMSL-BOSTON JAN 31 2023

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieba@uec-env.com

PLM

Town/City: Burlington, MA Building Name Fox Hill School

Sample	Description of Material	Sample Location
41	Hard Joint Pipe Insulation	Boiler Room
42	Tank Insulation	Boiler Room
43		
44		
45	Boiler exhaust Insulation	Boiler Room
46		
47		
48	Textured plaster	entry Portico
49		
50		
51		
52		
53	Round Light Gasket	entry Portico
54		
55	window Frame caulk	exterior window at Brick
56		
57		
58		
59	Door Frame caulk	exterior dwr at Brick
60		

Reported By: Jason Beaufe Date: 1-30-23 Due Date: **24-Hours**

Received By: _____ Date: _____

REC'D RINGS
EMSL-BOSTON JAN 31 2023

132300631

CHAIN OF CUSTODY

PLM

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adie@uec-env.com

Town/City: Burlington, MA Building Name Fox Hill School

Sample	Description of Material	Sample Location
61	Door frame caulk	exterior Door at Brick
62	expansion joint caulk	exterior Brick Joints
63		
64		

Reported By: Jason Beattie Date: 1-30-23 Due Date: **24-Hours**
Received By: _____ Date: _____
REC'D RHS OPS
EMSL-BOSTON JAN 31 2023



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com/bostonlab@emsl.com>

EMSL Order: 132300631

Customer ID: UEC63

Customer PO:

Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (617) 984-9772

Fax: (508) 628-5488

Received Date: 01/31/2023 8:30 AM

Analysis Date: 02/01/2023

Collected Date: 01/30/2023

Project: Fox Hill School; Burlington, MA

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 132300631-0001	Hallway - Interior Door Glass Glaze	Gray Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
2 132300631-0002	Room 22 - Interior Door Glass Glaze	Gray Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
3 132300631-0003	Hallway - Interior Window Glaze	Gray Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
4 132300631-0004	Hallway - Interior Window Glaze	Gray Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
5 132300631-0005	Room 2 - Black Sink Coating	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
6 132300631-0006	Room 20 - Black Sink Coating	Black Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
7 132300631-0007	Library Work Room - Gray Sink Coating	Gray Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
8 132300631-0008	Library Work Room - Gray Sink Coating	Gray Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
9 132300631-0009	Generator Room - 2x4 SAT	Gray/White Fibrous Homogeneous	55% Cellulose 10% Min. Wool	35% Non-fibrous (Other)	None Detected
10 132300631-0010	Teachers Room - 2x4 SAT	Gray/White Fibrous Homogeneous	55% Cellulose 10% Min. Wool	35% Non-fibrous (Other)	None Detected
11 132300631-0011	Pod 3 Storage - 12x12 Gray VFT	Gray Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
12 132300631-0012	Pod 3 Storage - 12x12 Gray VFT	Gray Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
13 132300631-0013	Pod 3 Storage - Black Mastic	Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
14 132300631-0014	Pod 3 Storage - Black Mastic	Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
15 132300631-0015	Hallway - 12x12 White/Gray VFT	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16 132300631-0016	Room 2 - 12x12 White/Gray VFT	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/01/2023 09:52:34



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / bostonlab@emsl.com

EMSL Order: 132300631
Customer ID: UEC63
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
17 132300631-0017	on #15 - Mastic	Black Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
18 132300631-0018	on #16 - Mastic	Black Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
19 132300631-0019	Room 10 - 12x12 Off-White/Gray VFT	Gray Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
20 132300631-0020	Room 21 - 12x12 Off-White/Gray VFT	Gray Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
21 132300631-0021	on #19 - Black Mastic	Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
22 132300631-0022	on #20 - Black Mastic	Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
23 132300631-0023	Work Room - 12x12 White w. Gray Streak	Gray/White Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
24 132300631-0024	Room 20 - 12x12 White w. Gray Streak	Gray/White Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
25 132300631-0025	on #23 - Black Mastic	Black Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
26 132300631-0026	on #24 - Black Mastic	Black Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
27 132300631-0027	Hallway along Gym - 12x12 White/Light Brown VFT	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28 132300631-0028	Pod 3 - 12x12 White/Light Brown VFT	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29 132300631-0029	on #27 - Mastic	Black Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
30 132300631-0030	on #28 - Mastic	Black Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
31 132300631-0031	Kitchen Bathroom - 12x12 Tan/Brown VFT	Brown/Tan Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
32 132300631-0032	Teachers Room - 12x12 Tan/Brown VFT	Brown/Tan Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
33 132300631-0033	on #31 - Black Mastic	Black Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
34 132300631-0034	on #32 - Black Mastic	Black Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
35 132300631-0035	Room 9 - 12x12 Lime VFT	Gray Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile

Initial report from: 02/01/2023 09:52:34



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<http://www.EMSL.com> / bostonlab@emsl.com

EMSL Order: 132300631
Customer ID: UEC63
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
36 <small>132300631-0036</small>	Room 9 - 12x12 Lime VFT	Gray Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
37 <small>132300631-0037</small>	Room 9 - Black Mastic	Black Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
38 <small>132300631-0038</small>	Room 9 - Black Mastic	Black Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
39 <small>132300631-0039</small>	Boiler Room - Hard Joint Pipe Insulation	Gray Fibrous Homogeneous	18% Min. Wool	80% Non-fibrous (Other)	2% Chrysotile
40 <small>132300631-0040</small>	Boiler Room - Hard Joint Pipe Insulation	Gray Fibrous Homogeneous	18% Min. Wool	80% Non-fibrous (Other)	2% Chrysotile
41 <small>132300631-0041</small>	Boiler Room - Hard Joint Pipe Insulation	Gray Fibrous Homogeneous	15% Min. Wool	82% Non-fibrous (Other)	3% Chrysotile
42 <small>132300631-0042</small>	Boiler Room - Tank Insulation	Gray Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
43 <small>132300631-0043</small>	Boiler Room - Tank Insulation	Gray Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
44 <small>132300631-0044</small>	Boiler Room - Tank Insulation	Gray Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
45 <small>132300631-0045</small>	Boiler Room - Boiler Exhaust Insulation	Gray Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
46 <small>132300631-0046</small>	Boiler Room - Boiler Exhaust Insulation	Gray Fibrous Homogeneous		40% Non-fibrous (Other)	60% Chrysotile
47 <small>132300631-0047</small>	Boiler Room - Boiler Exhaust Insulation	Gray Fibrous Homogeneous		40% Non-fibrous (Other)	60% Chrysotile
48 <small>132300631-0048</small>	Entry Portico - Textured Plaster	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
49 <small>132300631-0049</small>	Entry Portico - Textured Plaster	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
50 <small>132300631-0050</small>	Entry Portico - Textured Plaster	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
51 <small>132300631-0051</small>	Entry Portico - Textured Plaster	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
52 <small>132300631-0052</small>	Entry Portico - Textured Plaster	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
53 <small>132300631-0053</small>	Entry Portico - Round Light Gasket	Gray Fibrous Homogeneous		10% Non-fibrous (Other)	90% Chrysotile
54 <small>132300631-0054</small>	Entry Portico - Round Light Gasket	Gray Fibrous Homogeneous		10% Non-fibrous (Other)	90% Chrysotile

Initial report from: 02/01/2023 09:52:34



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EMSL Order: 132300631

Customer ID: UEC63

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
55 132300631-0055	Exterior Window at Brick - Window Frame Caulk	Gray Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
56 132300631-0056	Exterior Window at Brick - Window Frame Caulk	Gray Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
57 132300631-0057	Exterior Window at Brick - Window Frame Caulk	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
58 132300631-0058	Exterior Window at Brick - Window Frame Caulk	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
59 132300631-0059	Exterior Door at Brick - Door Frame Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
60 132300631-0060	Exterior Door at Brick - Door Frame Caulk	Gray Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
61 132300631-0061	Exterior Door at Brick - Door Frame Caulk	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
62 132300631-0062	Exterior Brick Joints - Expansion Joint Caulk	Gray Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
63 132300631-0063	Exterior Brick Joints - Expansion Joint Caulk	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
64 132300631-0064	Exterior Brick Joints - Expansion Joint Caulk	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile

Analyst(s)

Ramon Buenaventura (64)

Steve Grise, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, ME LB-0039

Initial report from: 02/01/2023 09:52:34



universal environmental consultants

12 Brewster Road
Framingham, MA 01702

Phone: 508.628.5486
Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Fox Hill School

TOWN / CITY: Burlington

WORK AREA: office

STATE: MA

AD
7/16/13

Analysis Type	Turnaround Time (x)					Specific Project Notes
	6-8 Hr	12 Hr	24 Hr	48 Hr	72 hr	
TEM / AHERA						
TEM / Level II						
TEM / Dust						
TEM / Bulk						
TEM / Water						
PLM			X			
Mold						
Other:						

SAMPLE ID	MATERIAL DESCRIPTION	SAMPLE LOCATION	START	STOP	TIME	L/MIN	VOLUME
1	white 12"x12" VAT	storage room					
2		" "					
3		under carpet					
4	white 12"x12" VAT	" "					
5	Black mastic	storage room					
6		" "					
7		under carpet					
8	Black mastic	" "					

SAMPLED BY: Jason Bette 7-16-13

DATE/TIME: RECEIVED BY:

RELINQUISHED BY:

DATE/TIME: RECEIVED IN LAB BY:

RECEIVED
 JUL 16 2013
 By SL 13.12 W-IN

DATE/TIME:

DATE/TIME:



EMSL Analytical, Inc.
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EMSL Order: 131302977
 CustomerID: UEC63
 CustomerPO:
 ProjectID:

Attn: **Jason Becotte**
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (508) 628-5486
 Fax: (508) 628-5488
 Received: 07/16/13 1:12 PM
 Analysis Date: 7/16/2013
 Collected: 7/16/2013

Project: **Fox Hill School Office; Burlington, MA**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131302977-0001	Storage Room - White 12x12 VAT	White Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
2 131302977-0002	Storage Room - White 12x12 VAT	White Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
3 131302977-0003	Under Carpet - White 12x12 VAT	White Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
4 131302977-0004	Under Carpet - White 12x12 VAT	White Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
5 131302977-0005	Storage Room - Black Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile
6 131302977-0006	Storage Room - Black Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile
7 131302977-0007	Under Carpet - Black Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile
8 131302977-0008	Under Carpet - Black Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile

Analyst(s)

Kevin Pine (8)

Renaldo Drakes, Laboratory Manager
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RIAAL-107T3 and VT AL357102

Initial report from 07/16/2013 15:51:12

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM
24-hour TAT

Town/City: Burlington, MA Building Name Fox Hill School

Sample	Result	Description of Material	Sample Location
1		sheetrock 2x4 SAT	Cafeteria storage room
2		sheet rock 2x4 SAT	Cafeteria storage room

Reported By: Jason Beckett Date: 7-24-17 Due Date: _____
Received By: [Signature] Date: [Signature]



Asbestos Identification Laboratory

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com
Email: mikemanning@asbestosidentificationlab.com

Batch: 24416



Lab Code: 200919-0

July 25, 2017

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Number:

Project Name: Fox Hill School, Burlington, MA

Date Sampled: 2017-07-24

Work Received: 2017-07-24

Work Analyzed: 2017-07-24

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project .

The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning
Owner/Director

July 25, 2017

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Number:
Project Name: Fox Hill School, Burlington, MA

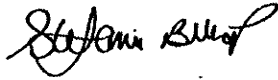
Date Sampled: 2017-07-24
Work Received: 2017-07-24
Work Analyzed: 2017-07-24

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID	Material	Location	Color	Non-Asbestos %		Asbestos %
LabID						
1	Sheetrock 2x4 SAT	Cafeteria Storage Room	gray	Fiberglass	2	None Detected
275096				Cellulose	20	
	Non-Fibrous	78				
2	Sheetrock 2x4 SAT	Cafeteria Storage Room	gray	Fiberglass	2	None Detected
275097				Cellulose	30	
				Non-Fibrous	68	

Tuesday 25 July 2017

Analyzed by:



End of Report

Batch: 24416

Page 1 of 1

CHAIN OF CUSTODY

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12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Plan
24-hour TAT

Town/City: Burlington, MA Building Name Fox Hill School

Sample	Result	Description of Material	Sample Location
1		Plaster cement	walk-in freezer wall
2			
3			
4		Cork	walk-in freezer insulation
5			
6			
7		Black tar on cork	walk-in freezer insulation
8			
9			

Reported By: Jason Beale Date: 2-2-18 Due Date: _____

Received By: _____ Date: _____

REC'D 16:15 FEB 2 2018
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WB



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5 Constitution Way, Unit A Woburn, MA 01801

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EMSL Order: 131800703

Customer ID: UEC63

Customer PO:

Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (617) 984-9772

Fax: (508) 628-5488

Received Date: 02/02/2018 4:15 PM

Analysis Date: 02/05/2018

Collected Date: 02/02/2018

Project: Fox Hill School / Burlington, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131800703-0001	Walk-In Freezer Wall - Plaster Cement	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2 131800703-0002	Walk-In Freezer Wall - Plaster Cement	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3 131800703-0003	Walk-In Freezer Wall - Plaster Cement	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4 131800703-0004	Walk-In Freezer Insulation - Cork	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5 131800703-0005	Walk-In Freezer Insulation - Cork	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6 131800703-0006	Walk-In Freezer Insulation - Cork	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7 131800703-0007	Walk-In Freezer Insulation - Black Tar on Cork	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 131800703-0008	Walk-In Freezer Insulation - Black Tar on Cork	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9 131800703-0009	Walk-In Freezer Insulation - Black Tar on Cork	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Elizabeth Stutts (9)

Steve Grise, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, Maine Bulk Asbestos LB-0039

Initial report from: 02/05/2018 12:14:31

131808190

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM
48-hour TAT

Town/City: Burlington, MA Building Name: Fox Hill School

Sample	Result	Description of Material	Sample Location
1		Rough ceiling plaster	Boiler room
2			
3			
4		smooth plaster	Cafeteria
5			
6			
7			
8			
9		2x4 SAT	Hall along Gym
10			Pod A
11		Joint compound	Kitchen Storage
12			PE office
13		sheet rock	Kitchen Storage
14			PE office

Reported By: Jason Perone Date: 10-23-18 Due Date: _____

Received By: _____ Date: _____

REC'D St WSD: SS
EMSL-BOSTON OCT 23 2018



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 131808190

Customer ID: UEC63

Customer PO:

Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (617) 984-9772
Fax: (508) 628-5488
Received Date: 10/23/2018 2:35 PM
Analysis Date: 10/25/2018
Collected Date: 10/23/2018

Project: Fox Hill School / Burlington MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131808190-0001	Boiler Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2 131808190-0002	Boiler Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3 131808190-0003	Boiler Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4 131808190-0004	Cafeteria - Smooth Plaster	White/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5 131808190-0005	Cafeteria - Smooth Plaster	White/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6 131808190-0006	Cafeteria - Smooth Plaster	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
7 131808190-0007	Cafeteria - Smooth Plaster	White/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 131808190-0008	Cafeteria - Smooth Plaster	White/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9 131808190-0009	Hall Along Gym - 2x4 SAT	Gray/White Fibrous Homogeneous	45% Cellulose 40% Min. Wool	15% Non-fibrous (Other)	None Detected
10 131808190-0010	Pod 4 - 2x4 SAT	Gray/White Fibrous Homogeneous	45% Cellulose 40% Min. Wool	15% Non-fibrous (Other)	None Detected
11 131808190-0011	Kitchen Storage - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12 131808190-0012	PE Office - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13 131808190-0013	Kitchen Storage - Sheet Rock	Brown/Gray Non-Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (Other)	None Detected
14 131808190-0014	PE Office - Sheet Rock	Brown/Gray Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (Other)	None Detected

Initial report from: 10/25/2018 18:02:48



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 131808190

Customer ID: UEC63

Customer PO:

Project ID:

Analyst(s)

John McCarthy (14)

Steve Grise, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, Maine Bulk Asbestos LB-0039

Initial report from: 10/25/2018 18:02:48



universal environmental consultants

12 Brewster Road
Framingham, MA 01702

Phone: 508.628.5486
Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Fox Hill School TOWN / CITY: Burlington
 WORK AREA: _____ STATE: MA

Analysis Type	Turnaround Time (x)					Specific Project Notes
	6-8 Hr	12 Hr	24 Hr	48 Hr	72 hr	
TEM / AHERA						
TEM / Level II						
TEM / Dust						
TEM / Bulk						
TEM / Water						
PLM						
Mold			X			
Other:						

SAMPLE ID	MATERIAL DESCRIPTION	SAMPLE LOCATION	START	STOP	TIME	L/MIN	VOLUME
1	3517 3805	Room 6	1504	1514	10	15	150
2	3426 4644	Room 2	1508	1518	10	15	150
3	3517 3803	Room 16	1515	1525	10	15	150
4	3426 9396	Room 20	1519	1529	10	15	150
5	3426 4643	Room 27	1526	1536	10	15	150
6	3426 4639	Room 23	1531	1541	10	15	150
7	3426 4651	Room 13	1537	1547	10	15	150
8	3426 4635	Room 9	1542	1552	10	15	150
9	3426 4637	Library	1548	1558	10	15	150
10	3426 4646	Teachers Room	1553	1603	10	15	150
11	3426 4602	outside	1558	1608	10	15	150

SAMPLED BY: Jason Beutte DATE/TIME: 1-30-23 RECEIVED BY: _____ DATE/TIME: _____
 RELINQUISHED BY: _____ DATE/TIME: _____ RECEIVED IN LAB BY: [Signature] DATE/TIME: _____

REC'D [Signature] 0830
 EMSL-BOSTON JAN 31 2023
[Signature]



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EMSL Order: 132300629

Customer ID: UEC63

Customer PO:

Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (617) 984-9772

Fax: (508) 628-5488

Collected Date: 01/30/2023

Received Date: 01/31/2023 08:30 AM

Analyzed Date: 01/31/2023

Project: Fox Hill School; Burlington, MA

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	132300629-0001			132300629-0002			132300629-0003		
Client Sample ID:	1			2			3		
Volume (L):	150			150			150		
Sample Location:	Room 6			Room 2			Room 16		
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	4	80	57.1	-	-	-	3	60	60
Basidiospores	1	20	14.3	-	-	-	2	40	40
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	1	20	14.3	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	1	20	14.3	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	7	140	100	-	None Detect	-	5	100	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	1	20	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	1	-	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Steve Grise, Laboratory Manager
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA LAP, LLC-EMLAP Accredited #180179

Initial report from: 02/01/2023 08:02 AM

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EMSL Order: 132300629

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Project ID:

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Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (617) 984-9772

Fax: (508) 628-5488

Collected Date: 01/30/2023

Received Date: 01/31/2023 08:30 AM

Analyzed Date: 01/31/2023

Project: Fox Hill School; Burlington, MA

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	132300629-0004			132300629-0005			132300629-0006		
	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
	Room 20			Room 27			Room 23		
Spore Types									
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	1	20	100	-	-	-	-	-	-
Basidiospores	-	-	-	-	-	-	Present	Present	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	Present	Present	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	Present	Present	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	1	20	100	None Detect	-	-	-	-	-
Hyphal Fragment	2	40	-	1	20	-	Present	Present	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	5	-

132300629-0006 - Overloaded

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Steve Grise, Laboratory Manager
or other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA LAP, LLC-EMLAP Accredited #180179

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Analyzed Date: 01/31/2023

Project: Fox Hill School; Burlington, MA

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	132300629-0007			132300629-0008			132300629-0009		
	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
	7			8			9		
	150			150			150		
	Room 13			Room 9			Library		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	1	20	25
Aspergillus/Penicillium	-	-	-	3	60	100	-	-	-
Basidiospores	-	-	-	-	-	-	2	40	50
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	1	20	25
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	-	None Detect	-	3	60	100	4	80	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Steve Grise, Laboratory Manager
or other Approved Signatory

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Project: Fox Hill School; Burlington, MA

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	132300629-0010			132300629-0011		
	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
10 150 Teacher's Room						
11 150 Outside						
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	4	80	57.1
Basidiospores	2	40	40	2	40	28.6
Bipolaris++	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-
Cladosporium	-	-	-	1	20	14.3
Curvularia	-	-	-	-	-	-
Epicoccum	1	20	20	-	-	-
Fusarium++	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	2	40	40	-	-	-
Unidentifiable Spores	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-
Total Fungi	5	100	100	7	140	100
Hyphal Fragment	1	20	-	1	20	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-
Background (1-5)	-	3	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

Property Tested:

Universal Environmental Consultant
12 Brewster Road
Framingham MA 01702

Fox Hill School
Fox Hill Road
Burlington MA 01803


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
8294242	4794754	01/30/2023 3:05 pm 02/02/2023 10:02 am	First Floor Room 6	0.8
8294243	4794755	01/30/2023 3:07 pm 02/02/2023 10:02 am	First Floor Room 2	< 0.4
8294244	4775968	01/30/2023 3:16 pm 02/02/2023 10:04 am	First Floor Room 16	0.4
8294245	4794753	01/30/2023 3:20 pm 02/02/2023 10:04 am	First Floor Room 20	0.4
8294246	4768495	01/30/2023 3:27 pm 02/02/2023 10:06 am	First Floor Room 27	0.6
8294247	4794752	01/30/2023 3:31 pm 02/02/2023 10:06 am	First Floor Room 23	< 0.4
8294248	4775967	01/30/2023 3:38 pm 02/02/2023 10:10 am	First Floor Room 13	0.6
8294249	4775971	01/30/2023 3:43 pm 02/02/2023 10:10 am	First Floor Room 9	0.5
8294250	4775966	01/30/2023 3:48 pm 02/02/2023 10:08 am	First Floor Library	1.1
8294251	4794748	01/30/2023 3:54 pm 02/02/2023 10:08 am	First Floor Teachers Room	0.5

Comment: Universal Environmental Consultant was emailed a copy of this report.

Test Performed By: Placed: Jason Becotte Retrieved: Jason Becotte

Distributed by: Universal Environmental Consultant

Date Received: 02/03/2023 Date Logged: 02/03/2023 Date Analyzed: 02/04/2023 Date Reported: 02/06/2023

Report Reviewed By: 

Report Approved By: 

Disclaimer:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

The counting uncertainty of this radon measurement is +/- 10%. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Laboratory personnel were not involved in the placement or retrieval of the samples. Analytical results relate to the samples as received by the laboratory. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.