

**REPORT
FOR
HAZARDOUS MATERIALS IDENTIFICATION
SURVEY
AT
GREATER LOWELL TECHNICAL HIGH SCHOOL
TYNGSBORO, MASSACHUSETTS**

PROJECT NO: 212 032.00

SURVEY DATES:
February 2012

SURVEY CONDUCTED BY:

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



February 29, 2012

Mr. Kevin Buckley, AIA, President
Knight, Bagge and Anderson, Inc
6 Thirteenth Street
Charlestown Navy Yard
Charlestown, MA 02129

Reference: **Hazardous Materials Inspection Report**
Greater Lowell Technical High School, Tyngsboro, MA

Dear Mr. Buckley:

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

Enclosed please find the report for the Identification Survey for accessible asbestos containing materials and other hazardous materials at the Greater Lowell Technical High School, Tyngsboro, MA.

The inspection was performed by an Environmental Protection Agency (EPA) accredited and Massachusetts licensed asbestos inspector Mr. Jason Becotte (AI-034963).

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

Very truly yours,

Universal Environmental Consultants

A handwritten signature in black ink, appearing to read "Ammar M. Dieb", is written over a horizontal line.

Ammar M. Dieb
President

UEC:1212 032\REPORT .DOC

Enclosure

1.0 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 residential, commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of twenty years of experience.

UEC was contracted by Knight, Bagge and Anderson, Inc to conduct a determination survey for accessible Asbestos Containing Materials (ACM), Polychlorinated Biphenyls (PCB's) and other hazardous materials at the Greater Lowell Technical High School, Tyngsboro, MA.

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 Jason Becotte (AI-034963) and analyzed by a Massachusetts licensed laboratory EMSL, Woburn, MA.

The scope of work also included the collection of bulk samples from caulking to be analyzed for the presence of PCB's. The samples were analyzed by a Massachusetts licensed laboratory EMSL, Cinnaminson, NJ.

Wood block flooring found at various locations in the building was previously found to contain Cresol.

Refer to samples results.

2.0 FINDINGS:

Asbestos:

A. Number of Samples Collected

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 contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations. However, 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.

No additional suspect and accessible ACM were found during this survey. However, hidden ACM may be found during any renovation or demolition activities.

February 10, 2012

Twenty (20) bulk samples were collected from the following materials suspected of containing asbestos:

Location/ Type of Material

1. Exterior door framing caulking at main entry
2. Exterior framing caulking at bank window frame
3. Exterior framing caulking at bank window lower panel

4. Exterior glazing caulking at bank window lower panel
5. Exterior framing caulking at bank block window
6. Exterior door framing caulking at door 2
7. Exterior door framing caulking at door GR1
8. Exterior expansion joint caulking
9. Exterior framing caulking at block window by door 16
10. Exterior framing caulking at window by door 16
11. Exterior glazing caulking at window by door 16
12. Exterior door framing caulking at oxygen shed
13. Exterior door framing caulking at door 21
14. Exterior framing caulking at gymnasium hall window
15. Exterior framing caulking on masonry at gymnasium hall window
16. Exterior door framing caulking at door 40
17. Exterior framing caulking on unit vent grille by door 42
18. Exterior framing caulking on window by door 46
19. Exterior framing caulking at block cafeteria window
20. Exterior framing caulking at front window

February 17, 2012

Nineteen (19) bulk samples were collected from the following materials suspected of containing asbestos:

Location/ Type of Material

1. Hard fitting insulation at carpentry
2. Hard elbow insulation at hallway "D" street 2
3. Hard elbow insulation at carpentry
4. Hard fitting insulation at automotive
5. Plaster skim coat at hall over window "D" street 3
6. Plaster base coat at hall over window "D" street 3
7. Joint compound at hall "D" street 3
8. Textured plaster at hall "D" street 3
9. Grey sheet flooring at room 1256
10. Brown glue for grey sheet flooring at room 1256
11. White 12"x 12" vinyl floor tile at cosmetology
12. Yellow glue for white 12"x 12" vinyl floor tile at cosmetology
13. Blue 12"x 12" vinyl floor tile at room 1164
14. Yellow glue for blue 12"x 12" vinyl floor tile at room 1164
15. Black 12"x 12" vinyl floor tile at room 1153
16. Dark red 12"x 12" vinyl floor tile at room 1268
17. Green sheet flooring at room 1444
18. Brown glue for green sheet flooring at room 1444
19. Red 12"x 12" vinyl floor tile at room 1323B

February 23, 2012

Thirty four (34) bulk samples were collected from the following materials suspected of containing asbestos:

Location/ Type of Material

1. Textured ceiling skim coat on sheetrock at security booth
2. Wall joint compound at gymnasium third floor custodian room
3. Sheetrock at gymnasium third floor custodian room

4. Ceiling plaster top coat at gymnasium side east
5. Ceiling plaster base coat at gymnasium side east
6. Ceiling plaster top coat at lecture hall
7. Ceiling plaster base coat at lecture hall
8. Textured wall plaster top coat at lecture hall hallway
9. Textured wall plaster base coat at lecture hall hallway
10. Textured wall plaster top coat at lecture hall hallway
11. Textured wall plaster base coat at lecture hall hallway
12. Textured wall plaster at lecture hall hallway
13. Textured wall plaster at lecture hall hallway
14. Roof drain insulation at auditorium catwalk
15. Hard fitting insulation at pool room
16. Hard fitting insulation at pool room
17. Interior expansion joint at second floor by room 2440
18. Glazing caulking in window of interior newer door at third floor gymnasium hallway
19. Interior window foam glazing at second floor hallway
20. Original interior window glazing caulking at room 2522
21. Original interior window glazing caulking at room 2560
22. Carpet glue at second floor hallway
23. Pink 12"x 12" vinyl floor tile at second floor hallway
24. Mastic for pink 12"x 12" vinyl floor tile at second floor hallway
25. Green 12"x 12" vinyl floor tile at gymnasium addition hallway
26. Mastic for green 12"x 12" vinyl floor tile at gymnasium addition hallway
27. Pink/orange 12"x 12" vinyl floor tile at sewing room
28. Mastic for pink/orange 12"x 12" vinyl floor tile at sewing room
29. Brown sheet flooring at second floor stairwell
30. Mastic for brown sheet flooring at second floor stairwell
31. Brown 12"x 12" vinyl floor tile at gymnasium second floor hallway
32. Mastic for brown 12"x 12" vinyl floor tile at gymnasium second floor hallway
33. Black sheet flooring at second floor stairwell
34. Mastic for black sheet flooring at second floor stairwell

February 24, 2012

Fourteen (14) bulk samples were collected from the following materials suspected of containing asbestos:

Location/ Type of Material

1. Joint compound at third floor west commons
2. Joint compound at third floor "E" street 3 stairwell
3. Joint compound at third floor east commons
4. Joint compound at third floor room 3560
5. Joint compound at third floor storage room by room 3554
6. Joint compound at second floor hallway by room 2271
7. Joint compound at second floor teacher's resources
8. Joint compound at second floor hallway by room 2620
9. Joint compound at first floor hallway by room 1504
10. Joint compound at first floor hallway by room 1540
11. Joint compound at first floor hallway by business office
12. Carpet glue at third floor hallway
13. Glazing caulking in window inside door at second floor by room 2271
14. Glazing caulking in window inside door at third floor by room 3543

B. Sample Results

February 10, 2012

Location/ Type of Material

	Sample Result
1. Exterior door framing caulking at main entry	No Asbestos Detected
2. Exterior framing caulking at bank window frame	No Asbestos Detected
3. Exterior framing caulking at bank window lower panel	No Asbestos Detected
4. Exterior glazing caulking at bank window lower panel	No Asbestos Detected
5. Exterior framing caulking at bank block window	5% Asbestos
6. Exterior door framing caulking at door 2	No Asbestos Detected
7. Exterior door framing caulking at door GR1	No Asbestos Detected
8. Exterior expansion joint caulking	No Asbestos Detected
9. Exterior framing caulking at block window by door 16	No Asbestos Detected
10. Exterior framing caulking at window by door 16	No Asbestos Detected
11. Exterior glazing caulking at window by door 16	No Asbestos Detected
12. Exterior door framing caulking at oxygen shed	2% Asbestos
13. Exterior door framing caulking at door 21	No Asbestos Detected
14. Exterior framing caulking at gymnasium hall window	No Asbestos Detected
15. Exterior framing caulking on masonry at gymnasium hall window	No Asbestos Detected
16. Exterior door framing caulking at door 40	No Asbestos Detected
17. Exterior framing caulking on unit vent grille by door 42	No Asbestos Detected
18. Exterior framing caulking on window by door 46	No Asbestos Detected
19. Exterior framing caulking at block cafeteria window	No Asbestos Detected
20. Exterior framing caulking at front window	No Asbestos Detected

February 17, 2012

Location/ Type of Material

	Sample Result
1. Hard fitting insulation at carpentry	No Asbestos Detected
2. Hard elbow insulation at hallway "D" street 2	No Asbestos Detected
3. Hard elbow insulation at carpentry	No Asbestos Detected
4. Hard fitting insulation at automotive	No Asbestos Detected
5. Plaster skim coat at hall over window "D" street 3	No Asbestos Detected
6. Plaster base coat at hall over window "D" street 3	No Asbestos Detected
7. Joint compound at hall "D" street 3	No Asbestos Detected
8. Textured plaster at hall "D" street 3	2% Asbestos
9. Grey sheet flooring at room 1256	No Asbestos Detected
10. Brown glue for grey sheet flooring at room 1256	No Asbestos Detected
11. White 12"x 12" vinyl floor tile at cosmetology	No Asbestos Detected
12. Yellow glue for white 12"x 12" vinyl floor tile at cosmetology	No Asbestos Detected
13. Blue 12"x 12" vinyl floor tile at room 1164	No Asbestos Detected
14. Yellow glue for blue 12"x 12" vinyl floor tile at room 1164	No Asbestos Detected
15. Black 12"x 12" vinyl floor tile at room 1153	No Asbestos Detected
16. Dark red 12"x 12" vinyl floor tile at room 1268	No Asbestos Detected
17. Green sheet flooring at room 1444	No Asbestos Detected
18. Brown glue for green sheet flooring at room 1444	No Asbestos Detected
19. Red 12"x 12" vinyl floor tile at room 1323B	No Asbestos Detected

February 23, 2012

Location/ Type of Material

Sample Result

1. Textured ceiling skim coat on sheetrock at security booth	2% Asbestos
2. Wall joint compound at gymnasium third floor custodian room	No Asbestos Detected
3. Sheetrock at gymnasium third floor custodian room	No Asbestos Detected
4. Ceiling plaster top coat at gymnasium side east	No Asbestos Detected
5. Ceiling plaster base coat at gymnasium side east	No Asbestos Detected
6. Ceiling plaster top coat at lecture hall	No Asbestos Detected
7. Ceiling plaster base coat at lecture hall	No Asbestos Detected
8. Textured wall plaster top coat at lecture hall hallway	No Asbestos Detected
9. Textured wall plaster base coat at lecture hall hallway	No Asbestos Detected
10. Textured wall plaster top coat at lecture hall hallway	No Asbestos Detected
11. Textured wall plaster base coat at lecture hall hallway	No Asbestos Detected
12. Textured wall plaster at lecture hall hallway	No Asbestos Detected
13. Textured wall plaster at lecture hall hallway	No Asbestos Detected
14. Roof drain insulation at auditorium catwalk	No Asbestos Detected
15. Hard fitting insulation at pool room	No Asbestos Detected
16. Hard fitting insulation at pool room	No Asbestos Detected
17. Interior expansion joint at second floor by room 2440	No Asbestos Detected
18. Glazing caulking in window of interior newer door at third floor gymnasium hallway	No Asbestos Detected
19. Interior window foam glazing at second floor hallway	No Asbestos Detected
20. Original interior window glazing caulking at room 2522	No Asbestos Detected
21. Original interior window glazing caulking at room 2560	2% Asbestos
22. Carpet glue at second floor hallway	2% Asbestos
23. Pink 12"x 12" vinyl floor tile at second floor hallway	No Asbestos Detected
24. Mastic for pink 12"x 12" vinyl floor tile at second floor hallway	No Asbestos Detected
25. Green 12"x 12" vinyl floor tile at gymnasium addition hallway	No Asbestos Detected
26. Mastic for green 12"x 12" vinyl floor tile at gymnasium addition hallway	No Asbestos Detected
27. Pink/orange 12"x 12" vinyl floor tile at sewing room	No Asbestos Detected
28. Mastic for pink/orange 12"x 12" vinyl floor tile at sewing room	2% Asbestos
29. Brown sheet flooring at second floor stairwell	10% Asbestos
30. Mastic for brown sheet flooring at second floor stairwell	No Asbestos Detected
31. Brown 12"x 12" vinyl floor tile at gymnasium second floor hallway	No Asbestos Detected
32. Mastic for brown 12"x 12" vinyl floor tile at gymnasium second floor hallway	No Asbestos Detected
33. Black sheet flooring at second floor stairwell	No Asbestos Detected
34. Mastic for black sheet flooring at second floor stairwell	No Asbestos Detected

February 24, 2012

Location/ Type of Material

Sample Result

1. Joint compound at third floor west commons	2% Asbestos
2. Joint compound at third floor "E" street 3 stairwell	2% Asbestos
3. Joint compound at third floor east commons	2% Asbestos
4. Joint compound at third floor room 3560	No Asbestos Detected
5. Joint compound at third floor storage room by room 3554	No Asbestos Detected
6. Joint compound at second floor hallway by room 2271	2% Asbestos
7. Joint compound at second floor teacher's resources	No Asbestos Detected
8. Joint compound at second floor hallway by room 2620	2% Asbestos
9. Joint compound at first floor hallway by room 1504	2% Asbestos
10. Joint compound at first floor hallway by room 1540	2% Asbestos
11. Joint compound at first floor hallway by business office	No Asbestos Detected

12. Carpet glue at third floor hallway
13. Glazing caulking in window inside door at second floor by room 2271
14. Glazing caulking in window inside door at third floor by room 3543

No Asbestos Detected
 2% Asbestos
 2% Asbestos

Some samples were not analyzed. The Environmental Protection Agency regulations states that should one sample from a homogenous area was found to be greater than 1 percent of asbestos, then the material must be considered asbestos containing.

Polychlorinated Biphenyls:

PCB's are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB's was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB's are a class of chemicals made up of more than 200 different compounds. PCB's are non-flammable, stable, and good insulators so they were widely used in a variety of products including: electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB's are not very soluble in water and they do not break down easily in the environment. PCB's also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB's have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food.

EPA requires that all construction waste including caulking must be disposed as PCB's if PCB's level exceed 50 mg/kg (ppm). Various disposal sites would not accept construction debris where the level of PCB's exceed 2 ppm.

A. Number of Samples Collected

Twelve (12) bulk samples were collected from the following.

Location/ Type of Material

1. Exterior door framing caulking at main entry
2. Exterior framing caulking at bank window
3. Exterior framing caulking on bank window lower panel
4. Exterior glazing caulking at bank window lower panel
5. Exterior framing caulking at bank block window
6. Exterior door framing caulking at door 2
7. Exterior door framing caulking at door GR1
8. Exterior expansion joint
9. Exterior framing caulking at block window by door 16
10. Exterior framing caulking at window by door 16
11. Exterior glazing caulking at window by door 16
12. Exterior door framing caulking at oxygen shed

B. Sample Results

Location/ Type of Material

Sample Result

- | | |
|---|-------------------|
| 1. Exterior door framing caulking at main entry | No PCB's Detected |
| 2. Exterior framing caulking at bank window | No PCB's Detected |
| 3. Exterior framing caulking on bank window lower panel | No PCB's Detected |
| 4. Exterior glazing caulking at bank window lower panel | No PCB's Detected |
| 5. Exterior framing caulking at bank block window | No PCB's Detected |
| 6. Exterior door framing caulking at door 2 | No PCB's Detected |
| 7. Exterior door framing caulking at door GR1 | No PCB's Detected |
| 8. Exterior expansion joint | No PCB's Detected |

9. Exterior framing caulking at block window by door 16
10. Exterior framing caulking at window by door 16
11. Exterior glazing caulking at window by door 16
12. Exterior door framing caulking at oxygen shed

No PCB's Detected
 No PCB's Detected
 No PCB's Detected
 No PCB's Detected

3.0 OBSERVATION AND COST ESTIMATES:

A. OBSERVATIONS:

All ACM must be removed by a Massachusetts licensed asbestos abatement contractor under the supervision of a Massachusetts licensed project monitor prior to demolition activities.

1. Exterior glazing caulking on windows was found to contain asbestos.
2. Wall joint compound was found to contain asbestos. The ACM was found at various locations.
3. Transite panels were assumed to contain asbestos. The ACM was found above block walls in hallways and rooms.
4. Textured ceiling skim coat was found to contain asbestos. The ACM was found at security booth.
5. Original interior window glazing caulking was found to contain asbestos. The ACM was found at throughout the building.
6. Pink/orange 12"x 12" vinyl floor tile and mastic were found to contain asbestos. The ACM was found at one location.
7. Glazing caulking in window inside door was found to contain asbestos. The ACM was found at throughout the building.
8. Stage light wiring was assumed to contain asbestos. The ACM was found at lecture hall catwalk.
9. Transite panels inside fume hood were assumed to contain asbestos. The ACM was found at room 2430.
10. Glue daubs holding blackboards were assumed to contain asbestos.
11. Sewer pipes were assumed to contain asbestos.
12. All remaining suspect materials were found not to contain asbestos.
13. Roofing and flashing material was assumed to contain asbestos. However, roofing material is not required to be removed by a licensed asbestos contractor prior to renovation or demolition.
14. Ballasts in light fixtures were assumed to contain PCB's.
15. Tubes in light fixtures were assumed to contain mercury.
16. Rubber flooring in both gymnasiums was assumed to contain mercury.
17. Switches and thermostats were assumed to contain mercury.
18. Painted surfaces were assumed to contain lead based paint. However, lead abatement is not required prior to renovation or demolition.
19. Caulking was found not to contain PCB's.
20. Wood block floors were previously found to contain Cresol.

B. COST ESTIMATES:

The cost includes removal and disposal of all accessible ACM and an allowance for removal of inaccessible or hidden ACM that may be found during the demolition project. Construction monitoring and air sampling services are included.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout	Transite Panels	95,000 SF	380,000.00
	Interior Windows	1,250 Total	62,500.00
	Interior Doors	260 Total	26,000.00
	Blackboards	Unknown	25,000.00
	Miscellaneous Hazardous Materials	Unknown	25,000.00
Various Locations	Cresol Wood Flooring	60,000 SF	300,000.00
	Joint Compound	60,000 SF	180,000.00

Location	Material	Approximate Quantity	Cost Estimate (\$)
Security Booth	Textured Ceiling Plaster	115 SF	1,150.00
Gymnasiums	Rubber Flooring ¹	18,500 SF	92,500.00
Swing Area	Pink/orange 12"x 12" VAT and Mastic	2,700 SF	13,500.00
Lecture Hall Catwalk	Stage Light Wiring	350 LF	3,500.00
Room 2430	Fume Hood	1 Total	1,500.00
Exterior	Windows	1,100 Total	82,500.00
	Transite Ser Pipes	Unknown	25,000.00
Fees for Design, Construction Monitoring and Air Sampling Services			81,850.00
Total:			1,300,000.00

¹: It is recommended that samples are collected from the rubber flooring should renovation or demolition activities might require removal.

4.0 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 method 600/M4-82-020.

Polychlorinated Biphenyls:

PCB's samples were analyzed in accordance with EPA 3540C/8082 method.

Inspected By:



Jason Becotte
Asbestos Inspector

Prepared by:



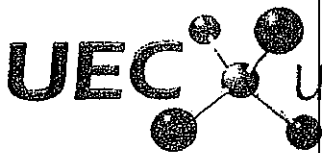
Ammar M. Dieb
President

5.0 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.

131200658



universal environmental consultants

12 Brewster Road
Framingham, MA 01702

Phone: 508.628.5486
Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Greater Lowell Tech High TOWN / CITY: Lowell
 WORK AREA: exterior 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				X		
Mold						
Other:						

SAMPLE ID	MATERIAL DESCRIPTION	SAMPLE LOCATION	START	STOP	TIME	L/MIN	VOLUME
1	caulk	Door main entry					
2	caulk	bank window frame					
3	caulk	bank windows lower Panel					
4	glaze	bank window Lower Panel					
5	caulk	@ block bank windows					
6	caulk	@ door 2					
7	caulk	door GR1					
8	caulk	expansion joint					
9	caulk	@ block by door 16					
10	caulk	Frame by door 16					
11	glaze	window by door 16					
12	caulk	door @ oxygen shield					
13	caulk	door 21					
14	caulk	Frame gym hall					
15	caulk	masonry gym hall					
16	caulk	door 40					
17	caulk	Louver by door 42					
18	caulk	Frame window by door 46					
19	caulk	@ block cafe door					
20	caulk	Frame Front windows					

DROP BOX

SAMPLED BY: Jason Bewthe
 RELINQUISHED BY: Jason Bewthe

DATE/TIME: RECEIVED BY:
 DATE/TIME: RECEIVED IN LAB BY:

RECEIVED
 FEB 13 2012
 0830



EMSL Analytical, Inc.
 7 Constitution Way, Suite 107, Woburn, MA 01801
 Phone/Fax: (781) 933-8411 / (781) 933-8412
 bostonlab@emsl.com

EMSL Order: 131200658
 CustomerID: UEC63
 CustomerPO:
 ProjectID:

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

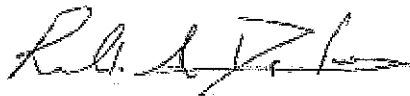
Phone: (508) 628-5486
 Fax: (508) 628-5488
 Received: 02/13/12 8:30 AM
 Analysis Date: 2/14/2012
 Collected:

Project: **Greater Lowell Tech High; Exterior; Lowell, MA**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131200658-0001	Door Main Entry - Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2 131200658-0002	Bank Window Frame - Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3 131200658-0003	Bank Window Lower Panel - Caulk	Black Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected
4 131200658-0004	Bank Window Lower Panel - Glaze	Gray Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
5 131200658-0005	At Block Bank Windows - Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
6 131200658-0006	At Door 2 - Caulk	Black Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected
7 131200658-0007	Door GR1 - Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
 Steve Grise (20)


 Renaldo Drakes, Laboratory Manager
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.
 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 02/14/2012 16:10:11

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order: 131200658

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: 02/13/12 8:30 AM
 Analysis Date: 2/14/2012
 Collected:

Project: Greater Lowell Tech High; Exterior; Lowell, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8 131200658-0008	Expansion Joint - Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
9 131200658-0009	At Block by Door 16 - Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
10 131200658-0010	Frame by Door 16 - Caulk	Black Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected
11 131200658-0011	Window by Door 16 - Glaze	Brown/Gray Non-Fibrous Heterogeneous		98% Non-fibrous (other)	2% Chrysotile
12 131200658-0012	Door at Oxygen Shed - Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13 131200658-0013	Door 21 - Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14 131200658-0014	Frame Gym Hall - Caulk	Black Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected

Analyst(s)

Steve Grise (20)

Renaldo Drakes, Laboratory Manager
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RIAAL-107T3 and VTAL357102

Initial report from 02/14/2012 16:10:11

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order: 131200658

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: 02/13/12 8:30 AM
 Analysis Date: 2/14/2012
 Collected:

Project: Greater Lowell Tech High; Exterior; Lowell, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
15 131200658-0015	Masonry Gym Hall - Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
16 131200658-0016	Door 40 - Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
17 131200658-0017	Louver by Door 42 - Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
18 131200658-0018	Frame Window by Door 46 - Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
19 131200658-0019	At Block Café Door - Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
20 131200658-0020	Frame Front Windows - Caulk	Black Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected

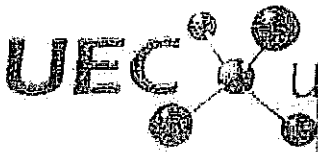
Analyst(s)

Steve Grise (20)

Renaldo Drakes, Laboratory Manager
 or other approved signatory

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Initial report from 02/14/2012 16:10:11



131200761
 universal environmental consultants

12 Brewster Road
 Framingham, MA 01702

Phone: 508.628.5486
 Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Greater Lowell Tech TOWN / CITY: Tyngsboro
 WORK AREA: 1st floor STATE: MA

Analysis Type	Turnaround Time (hr)					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	TIME			L/MIN	VOLUME
			START	STOP	TIME		
1	Hard T-Fitting	Carpentry					
2	Hard elbow	Hall D street 2					
3	Hard elbow	Carpentry					
4	Hard T-fitting	automotive					
5	Plaster skim coat	Hall over windows D street 3					
6	Plaster base coat	H " " " "					
7	Joint compound	Hall D street 3					
8	Textured plaster	Hall D street 3					
9	grey sheet flooring	1256					
10	Brown glue	1256					
11	white 12"x12" VCT	Cosmetology					
12	yellow glue	"					
13	Blue 12"x12" VCT	1164					
14	yellow glue	1164					
15	Black 12"x12" VCT	1153					
16	dark red 12"x12" VCT	1268					
17	green sheet flooring	1444					
18	Brown glue	1444					
19	Red 12"x12" VCT	1323B					

SAMPLED BY: <u>Jason Bewick</u>	DATE/TIME: <u>2-17-12</u>	RECEIVED BY:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	RECEIVED IN LAB BY:	DATE/TIME:

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 FEB 20 2012

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order: 131200761

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: 02/20/12 8:30 AM
 Analysis Date: 2/22/2012
 Collected:

Project: Greater Lowell Tech; 1st Floor; Tyngsboro, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131200761-0001	Carpentry - Hard T Fitting	Gray Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (other)	None Detected
2 131200761-0002	Hall D Street 2 - Hard Elbow	Gray Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (other)	None Detected
3 131200761-0003	Carpentry - Hard Elbow	Gray Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (other)	None Detected
4 131200761-0004	Automotive - Hard T Fitting	Gray Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (other)	None Detected
5 131200761-0005	Hall over Windows D Street 3 - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
6 131200761-0006	Hall over Windows D Street 3 - Plaster Base Coat	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
7 131200761-0007	Hall D Street 3 - Joint Compound	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

Kevin Pine (19)

Renaldo Drakes, Laboratory Manager
or other approved signatory

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

Report Amended: 02/23/2012 12:15:53 Replaces the Initial Report 02/22/2012 18:19:31. Reason Code: Client-Change to Project

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order: 131200761

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: 02/20/12 8:30 AM
 Analysis Date: 2/22/2012
 Collected:

Project: Greater Lowell Tech; 1st Floor; Tyngsboro, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8 131200761-0008	Half D Street 3 - Textured Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
9 131200761-0009	1256 - Gray Sheet Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
10 131200761-0010	1256 - Brown Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
11 131200761-0011	Cosmetology - White 12x12 VCT	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
12 131200761-0012	Cosmetology - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13 131200761-0013	1164 - Blue 12x12 VCT	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14 131200761-0014	1164 - Yellow Glue	Black/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Kevin Pine (19)

Renaldo Drakes, Laboratory Manager
or other approved signatory

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Report Amended: 02/23/2012 12:15:53 Replaces the Initial Report 02/22/2012 18:19:31. Reason Code: Client-Change to Project



EMSL Analytical, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order:	131200761
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: 02/20/12 8:30 AM Analysis Date: 2/22/2012 Collected:
Project: Greater Lowell Tech; 1st Floor; Tyngsboro, MA	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
15 <i>131200761-0015</i>	1153 - Black 12x12 VCT	Black/Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
16 <i>131200761-0016</i>	1268 - Dark Red 12x12 VCT	Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
17 <i>131200761-0017</i>	1444 - Green Sheet Flooring	Green Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
18 <i>131200761-0018</i>	1444 - Brown Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
19 <i>131200761-0019</i>	1323B - Red 12x12 VCT	Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

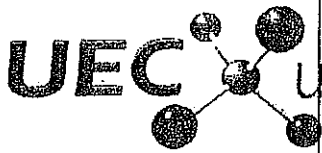
Analyst(s)
Kevin Pine (19)

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

Report Amended: 02/23/2012 12:15:53 Replaces the Initial Report 02/22/2012 18:19:31. Reason Code: Client-Change to Project



131200843
 universal environmental consultants

12 Brewster Road
 Framingham, MA 01702

Phone: 508.628.5486
 Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Greater Lowell Tech

TOWN / CITY: Tyngsborough

WORK AREA:

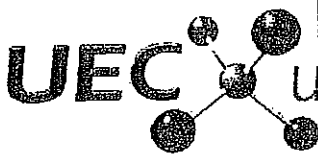
STATE: MA

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 Other:				X		

SAMPLE ID	MATERIAL DESCRIPTION	SAMPLE LOCATION	START	STOP	TIME	L/MIN	VOLUME
1	Texture ceiling skim	sheetrock @ security booth					
2	Joint compound	Gym 3rd Fl. custodian					
3	sheet rock	" " "					
4	ceiling plaster top	gym side exit					
5	ceiling plaster base	" " "					
6	ceiling plaster top	Lecture hall					
7	ceiling plaster base	" "					
8	texture wall plaster top	Lecture hall hallway					
9	texture wall plaster base	" "					
10	texture wall plaster top	" "					
11	texture wall plaster base	" "					
12	texture ceiling plaster	" "					
13	texture ceiling plaster	" "					
14	Roof drain elbow	auditorium catwalk					
15	Hard Fitting	Pool room					
16	" "	Pool room					
17	Interior wall caulk	2nd Fl. by 2440 expansion joint					
18	newer door glass glaze	3rd fl. gym hall					
19	Interior window foam glaze	2nd fl. hall					
20	original interior window glaze	room 2522					

RECEIVED
 FEB 23 2012
 BY: [Signature]
 1:50pm

SAMPLED BY: <u>Jason Bewick</u>	DATE/TIME: <u>2-23-12</u>	RECEIVED BY:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	RECEIVED IN LAB BY:	DATE/TIME:



131200848

universal environmental consultants

12 Brewster Road
Framingham, MA 01702

Phone: 508.628.5486
Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: <u>Greater Lowell Tech</u> WORK AREA: _____	TOWN / CITY: <u>Tyngsborough</u> STATE: <u>MA</u>
--	--

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
21	original interior window glaze	room 2560					
22	carpet glue	2nd fl. hallway					
23	12"x12" Pink VCT	2nd fl. hallway					
24	adhesive 1	" " "					
25	12"x12" green VCT	gym addition hallway					
26	adhesive 1	" " "					
27	12"x12" Pink/orange VCT	sewing					
28	black mastic 1	"					
29	Brown sheet Flooring	2nd fl. stairwell					
30	adhesive 1	" "					
31	12"x12" Brown VCT	gym 2nd fl. hallway					
32	adhesive 1	" " "					
33	Black sheet Flooring	2nd fl. stairwell					
34	adhesive 1	" "					

RECEIVED

FEB 23 2012

By [Signature]

1:38pm

SAMPLED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
<u>Jason Bennett</u>	<u>2-23-12</u>		
RELINQUISHED BY:	DATE/TIME:	RECEIVED IN LAB BY:	DATE/TIME:



EMSL Analytical, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801
Phone/Fax: (781) 933-8411 / (781) 933-8412
bostonlab@emsl.com

EMSL Order: 131200843
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: 02/23/12 1:40 PM
Analysis Date: 2/28/2012
Collected:

Project: Greater Lowell Tech; Tyngsborough, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131200843-0001	Sheetrock @ Security Booth - Texture Ceiling Skim	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
2 131200843-0002	Gym 3rd Floor Custodium - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3 131200843-0003	Gym 3rd Floor Custodium - Sheetrock	Tan/White Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
4 131200843-0004	Gym Side Exit - Ceiling Plaster Top	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
5 131200843-0005	Gym Side Exit - Ceiling Plaster Base	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
6 131200843-0006	Lecture Hall - Ceiling Plaster Top	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
7 131200843-0007	Lecture Hall - Ceiling Plaster Base	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
Kevin Pine (34)

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, RI AAL-107T3 and VT AL357102

Initial report from 02/28/2012 14:49:10

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order:	131200843
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: 02/23/12 1:40 PM
 Analysis Date: 2/28/2012
 Collected:

Project: Greater Lowell Tech; Tyngsborough, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8 131200843-0008	Lecture Hall - Hallway - Texture Wall Plaster Top	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
9 131200843-0009	Lecture Hall - Hallway - Texture Wall Plaster Base	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
10 131200843-0010	Lecture Hall - Hallway - Texture Wall Plaster Top	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
11 131200843-0011	Lecture Hall - Hallway - Texture Wall Plaster Base	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
12 131200843-0012	Lecture Hall - Hallway - Texture Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13 131200843-0013	Lecture Hall - Hallway - Texture Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14 131200843-0014	Auditorium Catwalk - Roof Drain Elbow	Gray Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (other)	None Detected

Analyst(s)
 Kevin Pine (34)

Renaldo Drakes, Laboratory Manager
 or other approved signatory

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Initial report from 02/28/2012 14:49:10



EMSL Analytical, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order: 131200843

CustomerID: UEC63

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ProjectID:

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

Phone: (508) 628-5486
Fax: (508) 628-5488
Received: 02/23/12 1:40 PM
Analysis Date: 2/28/2012
Collected:

Project: Greater Lowell Tech; Tyngsborough, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
15 131200843-0015	Pool Room - Hard Fitting	Gray Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
16 131200843-0016	Pool Room - Hard Fitting	Gray Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (other)	None Detected
17 131200843-0017	2nd Fl By 2440 Expansion Unit - Interior Wall Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
18 131200843-0018	3rd Fl Gym Hall - Newer Door Glass Glaze	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
19 131200843-0019	2nd Fl Hall - Interior Window Foam Glaze	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
20 131200843-0020	Room 2522 - Original Interior Window Glaze	Tan Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
21 131200843-0021	Room 2560 - Original Interior Window Glaze	Tan Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

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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 AA000186, RI AAL-107T3 and VT AL357102

Initial report from 02/28/2012 14:49:10

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

bostonlab@emsl.com

EMSL Order: 131200843

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: 02/23/12 1:40 PM
 Analysis Date: 2/28/2012
 Collected:

Project: Greater Lowell Tech; Tyngsborough, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
22 131200843-0022	2nd Fl Hallway - Carpet Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
23 131200843-0023	2nd Fl Hallway - 12"x12" Pink VCT	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
24 131200843-0024	2nd Fl Hallway - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
25 131200843-0025	Gym Addition Hallway - 12'x12' Green VCT	Green Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
26 131200843-0026	Gym Addition Hallway - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
27 131200843-0027	Sewing - 12"x12" Pink/Orange VCT	Brown Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
28 131200843-0028	Sewing - Black Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile

Analyst(s)

Kevin Pine (34)

Renaldo Drakes, Laboratory Manager
or other approved signatory

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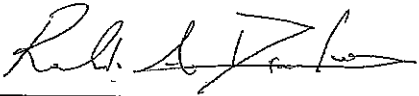
Phone: (508) 628-5486
 Fax: (508) 628-5488
 Received: 02/23/12 1:40 PM
 Analysis Date: 2/28/2012
 Collected:

Project: Greater Lowell Tech; Tyngsborough, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
29 131200843-0029	2nd Floor Stairwell - Brown Sheet Flooring	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
30 131200843-0030	2nd Floor Stairwell - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
31 131200843-0031	Gym 2nd Fl Hallway - 12"x12" VCT	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
32 131200843-0032	Gym 2nd Fl Hallway - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
33 131200843-0033	2nd Floor Stairwell - Black Sheet Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
34 131200843-0034	2nd Floor Stairwell - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
 Kevin Pine (34)


 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 AAD00188, RI AAL-107T3 and VT AL357102

Initial report from 02/28/2012 14:49:10



131200866

universal environmental consultants

12 Brewster Road
Framingham, MA 01702

Phone: 508.628.5486
Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Greater Lowell Tech

TOWN / CITY: Tyngsborough

WORK AREA: _____

STATE: MA

Analysis Type	Turnaround Time (y)				
	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:					

Specific Project Notes

SAMPLE ID	MATERIAL DESCRIPTION	SAMPLE LOCATION	START	STOP	TIME	L/MIN	VOLUME
1	Joint compound	3rd fl. west commons					
2		3rd fl. E street 3 stairwell					
3		3rd fl. east commons					
4		3rd fl. Room 3560					
5		3rd fl. storage @ 3554					
6		2nd fl. hallway by 2271					
7		2nd fl. teacher resource					
8		2nd fl. hallway by 2620					
9		1st fl. hallway by 1504					
10		1st fl. hallway by 1540					
11	Joint compound	1st fl. hallway by business office					
12	carpet glue	3rd fl. hallway					
13	door glass glaze	2nd fl. @ 2271					
14	door glass glaze	3rd fl. @ 3543					

RECEIVED
FEB 24 2012
By SA 0915

SAMPLED BY: Jason Beotte 2-23-11

DATE/TIME: RECEIVED BY:

DATE/TIME:

RELINQUISHED BY: Jason Beotte 2-24-11

DATE/TIME: RECEIVED IN LAB BY:

DATE/TIME:

**EMSL Analytical, Inc.**

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 Phone/Fax: (781) 933-8411 / (781) 933-8412
 bostonlab@emsl.com

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12 Brewster Road
Framingham, MA 01702

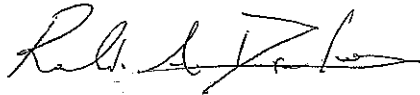
Phone: (508) 628-5486
 Fax: (508) 628-5488
 Received: 02/24/12 9:15 AM
 Analysis Date: 2/28/2012
 Collected:

Project: Greater Lowell Tech; Tyngsborough, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131200866-0001	3rd Fl West Commons - Joint Compound	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
2 131200866-0002	3rd Fl E Street 3 Stairwell - Joint Compound	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
3 131200866-0003	3rd Fl East Commons - Joint Compound	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
4 131200866-0004	3rd Fl Rm 3560 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
5 131200866-0005	3rd Fl Storage @ 3554 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
6 131200866-0006	2nd Fl Hallway by 2271 - Joint Compound	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
7 131200866-0007	2nd Fl Teacher Resource - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
 Steve Grise (14)


 Renaldo Drakes, Laboratory Manager
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.
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Initial report from 02/28/2012 13:39:24

3.