

**ENVIRONMENTAL HEALTH SURVEY REPORT
ASBESTOS SURVEY**

OF

**ANNANDALE MIDDLE SCHOOL – 1922 CONSTRUCTION
125 CHERRY AVENUE SOUTH
ANNANDALE, MINNESOTA**

PREPARED FOR

**STEVE NIKLAUS
ANNANDALE PUBLIC SCHOOLS ISD #876
125 CHERRY AVENUE SOUTH
ANNANDALE, MN 55302**

November 16, 2012

A·E·S

Applied Environmental Sciences, Inc.

APPLIED ENVIRONMENTAL SCIENCES, INC.
8441 Wayzata Blvd. □ Suite 103 □ Minneapolis, MN 55426

**ENVIRONMENTAL HEALTH SURVEY REPORT
ASBESTOS SURVEY**

AT

**ANNANDALE MIDDLE SCHOOL – 1922 CONSTRUCTION
125 CHERRY AVENUE SOUTH
ANNANDALE, MINNESOTA**

Date of Survey: September 19, October 3 & 30, 2012


Conducted by: Mark Meier, Asbestos Building Inspector MN #AI-3893
Applied Environmental Sciences, Inc.
8441 Wayzata Blvd., Suite #103
Minneapolis, MN 55426
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I hereby certify that the survey and inspection referenced by this report, and the report itself, were conducted in accordance with intent of the AHERA regulations to the best of my ability and knowledge.



Mark Meier, Asbestos Building Inspector

I have reviewed this report and hereby certify that the information contained within satisfies the intent of the AHERA regulations to the best of my ability and knowledge.



Patrick DiBartolomeo, CIH, CSP
Certification # 2204

F12-627 AMS asbestos report mmpc

**ANNANDALE MIDDLE SCHOOL – 1922 CONSTRUCTION
125 CHERRY AVENUE
ANNANDALE, MINNESOTA**

ASBESTOS SURVEY

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1.0 EXECUTIVE SUMMARY

Applied Environmental Sciences, Inc. (AES) was retained by Annandale Public Schools to perform an asbestos survey of the 1922 portion of Annandale Middle School located at 125 Cherry Avenue in Annandale, Minnesota. The survey meets the inspection standards of the Asbestos Hazard Emergency Response Act (AHERA) and Occupational Safety and Health Administration (OSHA). AES also sampled areas of heavily flaking and peeling paint for lead content and compiled a list of other hazardous materials (e.g., those assumed to contain PCBs, mercury, CFCs) present on the property.

This building is a three level structure that was constructed in 1922.

The survey was conducted on September 19, October 3 & 30, 2012.

The results of the survey are as follows:

1. AES took 20 bulk samples and all 20 were analyzed as part of this inspection.
2. Suspect building materials found to contain asbestos include – **9" x 9" floor tile, floor tile mastic, 2' x 4' ceiling tile, wall panel adhesive, red vinyl flooring, window glazing and window caulk.**
3. Building materials assumed to contain asbestos include – **aircell pipe insulation, hard fittings on aircell, ceiling tile mastic, chalk/white/bulletin board adhesive, wall panel adhesive, stair tread adhesive, fire doors, roofing materials, electric panels, ceramic floor tile mortar and grout.**
4. Aircell pipe insulation was assumed to be asbestos-containing during this inspection since previous sampling elsewhere by AES shows that it is always found to be asbestos-containing. Other materials (ceramic floor tile mortar and grout, wall panel adhesive, stair tread adhesive, etc.) were not sampled since they were only found on 1st floor of the building and this area is currently occupied. Also, sampling of these materials would damage the integrity of the material.
5. *AES was unable to inspect above the ceiling tiles on 1st floor. AES did not see ceiling tile mastic on the other floors, but assumes it exists on 1st floor until it can be inspected.*
6. *Various chalk/bulletin/whiteboard adhesive has been sampled in numerous locations on 2nd and 3rd floors with all of them found to be non-asbestos-containing. The 1st floor chalk/bulletin/whiteboards should be checked to verify the same adhesive exists under them.*
7. Vermiculite was observed in the attic of the Middle School. The vermiculite was sampled and found to contain <1% Actinolite/Tremolite asbestos by point count analysis.
8. AES was not able to gain access to the Gym storage rooms and pipe chases. The quantities of materials were assumed for these areas.
9. AES did not inspect the roof of the building at the time of the inspection. Materials on the roof should be treated as asbestos-containing until they can be sampled.
10. AES tested a total of nine (9) painted surfaces for lead. One (1) surface tested above the MPCA guideline of 0.5% by weight. Eight (8) surfaces tested above the OSHA guideline of

0.0 milligrams of lead 0.5% by weight. One (1) surface tested below both of these guidelines. See Appendix VII for a complete list of all surfaces tested.

11. Little or no damage was observed to the asbestos-containing material in the building. If damage occurs, repairs should be performed as soon as possible. Asbestos-containing material should not be cut, drilled, sanded or disturbed.
12. The estimated quantity and location of identified positive material is listed in the asbestos-containing material assessment data tables in Appendix III.
13. The estimated cost for removal of materials that were sampled and tested positive is \$124,000. The estimated cost for removal of materials assumed to contain asbestos is \$42,000. Total cost for removal of all asbestos-containing materials in the 1922 portion of the building is estimated at \$166,000.
14. Individual cost estimates for removal, arranged by functional space, have been included in Appendix VI.
15. Relevant State of Minnesota, EPA and OSHA regulations are included in Appendix I.

This survey should not be used as a bidding document. The ACM quantities provided are estimates and must be verified prior to abatement firm bidding. AES recommends using a licensed asbestos project designer to design and bid projects.

1.1 SUMMARY OF ACM BY TYPE AND QUANTITY

The approximate quantity of ACM found in the building is listed below:

Thermal System Insulation – None found

Surfacing Material – None Found

Miscellaneous Materials

Floor tile, 9"x 9"	7,000	square feet
Floor tile mastic, black	10,300	square feet
Ceiling tile, 2'x 4'	3,900	square feet
Wall panel adhesive	3,500	square feet
Red vinyl flooring	170	square feet
Window caulk	5,000	linear feet
Window glazing	140	windows

Assumed Materials (Occupied Areas or Inaccessible)

Aircell pipe insulation	820	linear feet
Hard fittings on aircell	30	fittings
Fire doors	22	doors
Roofing materials	3,000	square feet
Electric panels	25	panels
Ceramic floor tile mortar and grout	320	square feet
Ceiling tile mastic	6,500	square feet
Chalk/bulletin/tack board adhesive	400	square feet
Wall panel adhesive	800	square feet
Stair tread adhesive	80	square feet

For a full description of sample results and sample locations see Appendix II.

1.2 SUMMARY OF DETERIORATED LEAD-BASED PAINT

See Appendix VII for lead-based paint results.

1.3 SUMMARY OF HAZARDOUS MATERIALS

See Appendix VIII for a complete list of hazardous and special wastes observed.

2.0 METHODS

2.1 ASBESTOS SURVEY APPROACH

The procedures used for this survey **do not** meet the sampling standards of EPA's Asbestos Hazard Emergency Response Act (AHERA), the OSHA asbestos standard and the EPA NESHAP rule for demolitions.

AES's approach to this survey was to identify, assess, sample and quantify all suspect asbestos-containing materials within the building. *Electrical wiring and panels were not sampled.* AES does not perform bulk sampling of electrical equipment unless it has been shut down and tagged by a licensed electrician.

The quantity of each assessed material was estimated.

2.1.1 ASBESTOS SURVEY LIMITATIONS

Only accessible materials were sampled. An attempt was made to locate and identify materials inside walls, doors, ducts, roofs or other areas which require destructive entry on 2nd and 3rd floors. 1st floor was occupied with limited access to this area. The possibility exists that as other walls, doors, ducts, etc. are opened during the renovation of the building, suspect materials may be found. If suspect materials are encountered during renovation, work should stop until these materials can be tested and, if necessary, removed by a licensed asbestos contractor.

AES was unable to inspect above the ceiling tiles on 1st floor. AES did not see ceiling tile mastic on other floors, but assumes that it exists on 1st floor until it can be inspected for.

Various chalk/bulletin/whiteboard adhesive has been sampled in numerous locations with all of them found to be non-asbestos-containing. The 1st floor boards should be checked to verify the same adhesive exists under them.

AES was not able to gain access to the Gym storage rooms and pipe chases. The quantities of materials were assumed for these areas.

AES did not inspect the roof of the building at the time of the inspection. Materials on the roof should be treated as asbestos-containing until they can be sampled.

Quantities of all materials are estimates and should be verified by bidding contractors.

This survey identifies materials as they existed on the day of the survey. Conditions and quantities may change over time.

2.1.2 BULK ASBESTOS SAMPLING

Samples were collected utilizing random sampling procedures. Similar systems and materials were grouped into "homogeneous areas of building materials." Multiple random samples were taken of materials in accordance with the EPA-AHERA guidelines. Sample locations were determined using a random sampling process for each homogeneous material.

<u>AMOUNT OF MATERIAL</u>	<u>MINIMUM # OF SAMPLES</u>
Less than 1,000 square feet	3

Between 1,000 and 5,000 square feet	5
Greater than 5,000 square feet	7

Samples were collected by carefully removing a small representative sample of the suspect material and sealing it in a plastic bag. Water was used to control dust during sampling. The sample was identified with a sample number. Where possible, sample locations were tagged with the sample number and designated "A, B, C," etc. The "wounds" where suspect materials were sampled were sealed. Sample locations are noted on the diagram in Appendix IV.

2.1.3 BULK ASBESTOS ANALYSIS

The bulk samples were analyzed by polarized light microscopy (PLM) with dispersion staining, EPA method 600/R-93/116. Bulk samples were viewed under a stereoscope. Samples were prepared in various Cargille refractive index oils and examined under the polarizing microscope. The samples were evaluated under crossed polars for extinction angle, sign of elongation and morphology. The samples were then analyzed using a dispersion-staining objective to measure refractive index in various orientations. Mineral identification was based on the unique optical characteristics observed under the polarizing microscope. Quantity determinations are made by visual estimation.

EPA NESHAP-Asbestos Rule 40 CFR Part 61 states that samples found to contain less than 10% asbestos by visual estimation may be further quantified by point count analysis.

The Asbestos Rule also states that all multi-layer systems, except for wall systems where joint compound was used only at the joints and nail holes, must be analyzed as separate materials. If any layer contains greater than one-percent asbestos, that layer must be treated as asbestos-containing. This requires all layers in a multi-layered system to be treated as asbestos-containing if the layers cannot be separated without disturbing the asbestos-containing layer.

In each homogeneous sampling area, once a positive sample was identified, the remaining samples were not analyzed. Asbestos samples will be held for thirty (30) days after the date of this report.

2.2 HAZARDOUS MATERIALS SURVEY APPROACH

AES's approach to this survey was to visually inspect each room for building components assumed to contain hazardous and special wastes that must be removed from the building or recycled properly prior to renovation/demolition. Quantities of these materials are estimates and should be verified by bidding contractors.

See Appendix VIII for a complete list of hazardous and special wastes observed.

2.3 LEAD SURVEY APPROACH

AES's approach to this lead paint sampling was to sample all flaking and peeling paint within the building. Only accessible materials were sampled.

2.4 CHAIN OF CUSTODY PROCEDURES

To ensure that samples collected in the field are neither lost nor their identity confused, all samples, from the point of collection to receipt in the laboratory, follow these procedures. Each sample is first assigned a unique and distinct sampling number. After a sample is placed into a

plastic bag, that unique number is assigned to that bag. This same number is assigned to a bulk sample data sheet. The inspector signs each bulk data sheet before it, along with the samples, is delivered to the lab. Upon receipt of the samples, the lab analyst verifies that each sample matches the corresponding bulk sheet sample number and signs and dates the bulk sheet. The analyst places analytical results on the bulk data sheets, signs each one, and returns the sheets to the inspector for report generation.

2.5 QUALIFICATIONS

Sample analysis for this project was conducted by TestAmerica Laboratories, Inc. located in Cherry Hill, NJ. TestAmerica has been accredited by the National Voluntary Laboratory Accreditation Program (NVLAP lab code 200844-0).

Sample analysis for this project was conducted by EMSL Analytical, Inc. located in Minneapolis, Minnesota. EMSL is accredited by the National Voluntary Accreditation Program (NVLAP lab code 200019-0).

All field work is supervised by Board Certified Industrial Hygienists and conducted by accredited asbestos building inspectors.

3.0 DISCUSSION

3.1 SUMMARY OF NON-ASBESTOS-CONTAINING MATERIAL

Suspect ACM is considered negative for asbestos when all samples of the material are found to contain one percent or less asbestos.

Suspect material found to be negative include:

1. Floor tile mastic under carpet (Sample 627-1).
2. Floor tile mastic, black (Sample 627-3).
3. Door caulk (Sample 627-6).
4. Window caulk (Sample 627-7).
5. Window glazing (Sample 627-8).
6. Window caulk, gray/white (Sample 627-9).
7. Ceramic floor tile mortar (Sample 539-1, 6).
8. Ceramic floor tile grout (Sample 539-2, 7).
9. Chalkboard adhesive (Sample 539-5).
10. Ceramic wall tile mortar (Sample 539-8).
11. Ceramic wall tile grout (Sample 9).
12. Light brown wall adhesive (Sample 539-10).
13. Vermiculite (Sample 092-1).
14. Adhesive on wall (Sample 288-4, 5).
15. Brown adhesive between whiteboard and backing sheet of bulletin board (Sample 288-6).
16. 2' x 4' ceiling tile, white with dents and holes (Sample 175-1).
17. Baseboard (Sample 175-2, 5).
18. Baseboard adhesive (Sample 175-3, 6).
19. 2'x 4' ceiling tile, white with small fissures and holes (Sample 175-4).
20. 2'x 2' ceiling tile, white with small fissures and holes (Sample 175-8).
21. 1'x 1' ceiling tile mastic (Sample IEA 1B).
22. Plaster (Sample ECSU-W101-W107).

3.2 RECOMMENDATIONS

3.2.1 ASBESTOS

Suspect building materials found to contain asbestos include – **9" x 9" floor tile, floor tile mastic, 2' x 4' ceiling tile, wall panel adhesive, red vinyl flooring, window glazing and window caulk.**

Building materials assumed to contain asbestos include – **aircell pipe insulation, hard fittings on aircell, ceiling tile mastic, chalk/white/bulletin board adhesive, wall panel adhesive, stair tread adhesive, fire doors, roofing materials, electric panels, ceramic floor tile mortar and grout.**

Floor tile is located under carpeting throughout the building. This floor tile contains asbestos. Removal of this carpeting could potentially cause damage to the underlying floor tile and possibly cause an asbestos fiber release.

The floor tile throughout the building was installed on wood sub-floor. Removing the asbestos-containing mastic on this wood is nearly impossible without removing the wood sub-floor.

AES was unable to inspect above the ceiling tiles on 1st floor. AES did not see ceiling tile mastic on other floors, but assumes that it exists on 1st floor until it can be inspected for.

Various chalk/bulletin/whiteboard adhesive has been sampled in numerous locations with all of them found to be non-asbestos-containing. The 1st floor boards should be checked to verify the same adhesive exists under them.

AES was not able to gain access to the Gym storage rooms and pipe chases. The quantities of materials were assumed for these areas.

3.2.2 HAZARDOUS MATERIALS

All hazardous and special waste must be recycled or properly removed and disposed of according to Local, State, and Federal regulations when removed from the building. A complete list of building hazardous and special wastes observed is included in Appendix VIII.

3.2.3 LEAD

AES tested a total of nine (9) painted surfaces for lead. One (1) surface tested **above** the MPCA guideline of 0.5% by weight. Eight (8) surfaces tested **above** the OSHA guideline of 0.0 milligrams of lead 0.5% by weight. One (1) surface tested below both of these guidelines. See Appendix VII for a complete list of all surfaces tested.

3.3 COST ESTIMATES

3.3.1 ASBESTOS REMOVAL COSTS

Asbestos abatement estimates are based on present day abatement costs. These estimates can vary greatly based on factors such as time of the year, state of the economy, and size of the project. To keep the estimates more realistic, contractor mobilization costs were not included. This will have little effect on large abatement projects, but could cause small projects to cost substantially more than our estimates. The estimates should be reviewed when abatement is planned.

Total cost for removal of all asbestos-containing materials in the 1922 portion of the Annandale Middle School is estimated at \$166,000. Individual cost estimates for removal, arranged by functional space, have been included in Appendix VI.

This survey should not be used as a bidding document. The ACM quantities provided are estimates and must be verified prior to abatement firm bidding. AES recommends using a licensed asbestos project designer to design and bid projects.

APPENDIX I

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STANDARDS REGULATING ASBESTOS

1. MINNESOTA

The State of Minnesota enforces two asbestos-related rules that affect building owners. One rule states that friable asbestos-containing materials must be maintained in a good state of repair. The second rule states that an inspection survey for asbestos must be performed prior to the undertaking of either a renovation or demolition project where there is reason to suspect asbestos might be present. These rules are enforced by Minnesota OSHA.

Minnesota Department of Health regulations require building owners to keep records of all asbestos abatement or asbestos maintenance work performed at their facility for the current calendar year. These records must be retained for three years.

2. EPA

The EPA has specific rules governing the disposal of asbestos-containing materials (ACM), removal of ACM before building demolition and notification before removal of ACM. The Minnesota Pollution Control Agency enforces these rules.

EPA's Asbestos Hazard Emergency Response Act (AHERA), which regulates asbestos in schools, states that any building material containing greater than one percent asbestos must be inspected and managed.

3. EPA/ASHARA

The Asbestos School Hazard Abatement Reauthorization Act (ASHARA) requires that any asbestos inspection, whether done visually or by taking samples, must be done by accredited asbestos building inspectors. The regulation also stipulates that asbestos abatement projects must be designed and performed by accredited individuals.

4. OSHA

OSHA standards 1910.1001 (general industry), 1926.1101 (construction), and 1915.1001 (shipbuilding) regulate occupational exposures to asbestos. These standards regulate asbestos abatement, building inspections, maintenance work and custodial activities. The permissible exposure limit (PEL) for asbestos is 0.1 fibers per cubic centimeter as an eight-hour, time-weighted average (8-hour TWA).

Friable asbestos-containing material (ACM) is defined by the EPA as any material containing more than one percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

Nonfriable ACM is any material containing more than one percent asbestos that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

The EPA defines two categories of nonfriable ACM, Category I and Category II nonfriable ACM. Category I nonfriable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent asbestos. Category II nonfriable ACM is any material, excluding Category I nonfriable ACM, containing more than one percent asbestos, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

“Regulated Asbestos-Containing Material” (RACM) is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation activities.

2.0 STANDARDS REGULATING LEAD

2.1 OSHA

OSHA standards apply to any employee disturbing (creating dust or fumes) materials covered with lead-based paint. OSHA regulates lead as an airborne contaminant. Airborne concentrations during disturbance will vary with both the concentration of lead paint and with the operation (manual demolition, sanding, etc.). OSHA requires the contractor to show proof that the operations disturbing lead based paint in any concentration will not exceed the action level of $30 \mu\text{g}/\text{m}^3$ or the Permissible Exposure Limit (PEL) of $50 \mu\text{g}/\text{m}^3$.

2.2 MPCA

The MPCA requires that all peeling, flaking or otherwise deteriorated lead-based paint must be removed or stabilized prior to building demolition.

3.0 HAZARDOUS AND SPECIAL WASTE

3.1 MPCA

The MPCA requires that all solid, hazardous, or other special waste be recycled or removed and properly disposed of prior to demolition.

APPENDIX II

**EMSL Analytical, Inc.**

14375 23rd Avenue North, Minneapolis, Mn 55447

Phone/Fax: (763) 449-4922 / (763) 449-4924

www.emsl.com

EPA 8160-R-07-001

EMSL Order: 351207096

CustomerID: APPL66

CustomerPO:

ProjectID:

Attn: **Mark Meier**
Applied Environmental Sciences, Inc(AES)
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Phone: (763) 545-5510
 Fax: (763) 545-7883
 Received: 10/31/12 1:50 PM
 Analysis Date: 11/7/2012
 Collected: 10/31/2012

Project: F12-627 1922 Bldg.

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 351207096-0001	Mastic under Carpet - 2 & 3rd S. Stairs	Brown/Tan Fibrous Homogeneous	5% Cellulose	45% Non-fibrous (other) 50% Matrix	None Detected
Wood Layer Not Analyzed					
2 351207096-0002	Red Vinyl - N Stairway 2-3rd Fl Landing	Gray/White/Red Fibrous Homogeneous	5% Cellulose	18% Non-fibrous (other) 25% Quartz 50% Matrix	2% Chrysotile
3 351207096-0003	Blk Mastic	Black Fibrous Homogeneous	15% Cellulose	20% Non-fibrous (other) 15% Quartz 50% Matrix	None Detected
4 351207096-0004	Gray Gummy Window Glazing Rm 205	Gray/White Fibrous Homogeneous	10% Cellulose	75% Non-fibrous (other)	15% Chrysotile
5 351207096-0005	Gray Gummy on Square Window Glazing Rm 209	Fibrous Homogeneous		35% Non-fibrous (other) 60% Matrix	5% Chrysotile
6 351207096-0006	Tan Door Caulk Exterior N. Stairway	Gray/White Non-Fibrous Homogeneous		40% Non-fibrous (other) 60% Matrix	None Detected
7 351207096-0007	Window Caulk, Tan Rm 103	Gray/White Non-Fibrous Homogeneous		35% Non-fibrous (other) 65% Matrix	None Detected

Analyst(s)

Silas Thompson (10)

Rachel Travis, Laboratory Manager
or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 11/07/2012 13:42:44

**EMSL Analytical, Inc.**

14375 23rd Avenue North, Minneapolis, Mn 55447

Phone/Fax: (763) 449-4922 / (763) 449-4924

MINNEAPOLIS, MN

MINNEAPOLIS, MN

EMSL Order:	351207096
CustomerID:	APPL66
CustomerPO:	
ProjectID:	

Attn: **Mark Meier**
Applied Environmental Sciences, Inc(AES)
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Phone: (763) 545-5510
 Fax: (763) 545-7883
 Received: 10/31/12 1:50 PM
 Analysis Date: 11/7/2012
 Collected: 10/31/2012

Project: F12-627 1922 Bldg.

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 351207096-0008	Window Glazing, Gray Exterior N of S Stairway	Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
9-Window Caulk- Gray 351207096-0009	Window Caulk, Gray N Side Ext.	Gray/White Fibrous Homogeneous	10% Glass	20% Non-fibrous (other) 10% Quartz 60% Matrix	None Detected
9-Beige 351207096-0009A	Window Caulk, Gray N Side Ext.	Tan Non-Fibrous Homogeneous		30% Non-fibrous (other) 20% Quartz 45% Matrix	5% Chrysotile

Analyst(s)

Silas Thompson (10)

Rachel Travis, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported 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. 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. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. tile, masonry, wallboard, etc.) are reported as a single sample. Reporting limit is 1%.

Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 11/07/2012 13:42:44

Test Report PLM-7.18.0 Printed: 11/7/2012 1:42:44 PM

THIS IS THE LAST PAGE OF THE REPORT.

2

Asbestos Lab Services Chain of Custody

EMSL Order Number (Lab Use Only):

7096

Company: Applied Environmental Sciences, Inc.		EMSL Bill To: <input type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments	
Street: 8441 Wayzata Blvd., Suite 103		Third Party Billing requires written authorization from third party	
City/State/Zip: Minneapolis, MN 55426			
Report To (Name): Mark Meier		Fax: 763-545-7883	
Telephone: 763-545-5510		Email Address: m.meier@aesmn.com	
Project Name/Number: <u>ME-027 1522 Bldg</u>			
Please Provide Results: Email		Purchase Order:	
State Samples Taken: MN			
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
<small>*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3-hour TEM Air/EPA or EPA Level II. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.</small>			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 600 TWA		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93.116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count: <input type="checkbox"/> 1400 (<0.25%) 1000 (<0.1%) Point Count w/ Gravimetric <input type="checkbox"/> 400 (<0.25%) 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (non-frangible-NY) <input type="checkbox"/> NYS 198.6 NOB (non-frangible-NY) <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-frangible-NY) <input type="checkbox"/> Crafted SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: <u>Mark Meier</u>		Samplers Signature: <u>[Signature]</u>	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1	Mastic under Carpet - 2-3 rd S. Stairs		10/31/12 4:10
2	Red Vinyl - N. Stairway 2-3 rd Landing		
3	Blk Mastic -		
4	Gray Gummy Insulation Ceiling Panels		
5	Gray Gummy on Signix Insulation Ceiling Panels		
6	Tan Vinyl Carole Exterior - N. Stairway		
7	Window Caulk, Tan, Rm 103		
8	Window Gypsum Gypsum Exterior - N. of S. Stairway Door		
Client Sample # (s): <u>9</u>		Total # of Samples: <u>9</u>	
Relinquished (Client): <u>[Signature]</u> Date: <u>10/31/12</u>		Time: <u>1:50 PM</u>	
Received (Lab): <u>William</u> WI Date: <u>10/31/12</u>		Time: <u>1:50</u>	
Comments/Special Instructions:			



Report for:

Mark Meier
Applied Environmental Sciences, Inc.
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Regarding: Project: F12-539; AMS
EML ID: 979272

Approved by:

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 10-10-2012

Daniel M. Devine

Lab Director
Daniel Devine

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01267))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

FMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K, LLC

EMLab ID: 979272, Page 1 of 4

Client: Applied Environmental Sciences, Inc.
 C/O: Mark Meier
 Re: F12-539; AMS

Date of Submittal: 10-04-2012
 Date of Receipt: 10-05-2012
 Date of Report: 10-10-2012

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted: 10
Total Samples Analysed: 10

Total Samples with Layer Asbestos Content > 1%: 2

Location: 1, Cream 1" Ceramic FT Mortar

Lab ID-Version‡: 4367928-1

Sample Layers	Asbestos Content
Cream Ceramic Tile	ND
Multicolored Semi-Fibrous Material	ND
Gray Mortar	ND
Composite Non-Asbestos Fibrous Content: < 1% Cellulose	
Sample Composite Homogeneity: Moderate	

Location: 2, Cream 1" Ceramic FT Grout

Lab ID-Version‡: 4367929-1

Sample Layers	Asbestos Content
Gray Grout	ND
Sample Composite Homogeneity: Moderate	

Location: 3, Floor Tile under Carpet

Lab ID-Version‡: 4367930-1

Sample Layers	Asbestos Content
Tan Floor Tile	2% Chrysotile
Multicolored Mastic	ND
Composite Non-Asbestos Fibrous Content: 4% Talc	
Sample Composite Homogeneity: Moderate	

Location: 4, FT Mastic Black

Lab ID-Version‡: 4367931-1

Sample Layers	Asbestos Content
Black Mastic	5% Chrysotile
Sample Composite Homogeneity: Moderate	

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Applied Environmental Sciences, Inc.
 C/O: Mark Meier
 Re: F12-539; AMS

Date of Submittal: 10-04-2012
 Date of Receipt: 10-05-2012
 Date of Report: 10-10-2012

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 5, Chalkboard Adh

Lab ID-Version‡: 4367932-1

Sample Layers	Asbestos Content
Brown Adhesive	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Good

Location: 6, 1" Green Cer FT Mortar

Lab ID-Version‡: 4367933-1

Sample Layers	Asbestos Content
Green Ceramic Tile	ND
Brown Semi-Fibrous Material	ND
Gray Mortar	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 7, 1" Green Cer FT Grout

Lab ID-Version‡: 4367934-1

Sample Layers	Asbestos Content
Gray Grout	ND
Sample Composite Homogeneity:	Moderate

Location: 8, 4" White Ceramic WT Mortar

Lab ID-Version‡: 4367935-1

Sample Layers	Asbestos Content
White Ceramic Tile	ND
Yellow Adhesive / White Non Fibrous Material	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 9, 4" White Ceramic WT Grout

Lab ID-Version‡: 4367936-1

Sample Layers	Asbestos Content
White Grout	ND
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Applied Environmental Sciences, Inc.
C/O: Mark Meier
Re: F12-539; AMS

Date of Submittal: 10-04-2012
Date of Receipt: 10-05-2012
Date of Report: 10-10-2012

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: J0, LT Brown Adhesive on Wall

Lab ID-Version]: 4367937-1

Sample Layers	Asbestos Content
Brown Adhesive / White Non-Fibrous Material	ND
Composite Non-Asbestos Fibrous Content:	5% Talc < 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by "x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

BULK MATERIAL ASBESTOS ANALYSIS REPORT
 POINT COUNT ANALYSIS

Client: Mr. Mark Meier
 Applied Environmental Sciences
 8441 Wayzata Boulevard
 Minneapolis, MN 55426

Report Date: 3/21/12

Project No.: 1201278

Date Received: 3/20/12

Date Analyzed: 3/21/12

Client Project: F12-092

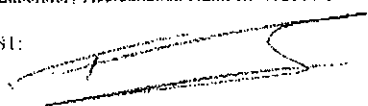
SAMPLE NO.	LAB NO.	SAMPLE DESCRIPTION	ASBESTOS TYPE (%)	OTHER MATERIAL (%)
2A	1201278 - 1	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	0.5% Tremolite	99.5% Other
2B	1201278 - 2	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	0.25% Tremolite	99.75% Other
2C	1201278 - 3	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	Trace - Tremolite	100% Other
2D	1201278 - 4	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	0.25% Tremolite	99.75% Other
2E	1201278 - 5	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	Trace - Tremolite	100% Other
2F	1201278 - 6	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	Trace - Tremolite	100% Other
2G	1201278 - 7	Vermiculite - AMS Attic Gold/Gray, Cementitious/Fibrous Homogeneous	0.25% Tremolite	99.75% Other

If a point count yields "Zero" result but asbestos fibers are observed during a point count, a "Trace" amount is reported.

The analysis was performed in accordance with current U. S. Environmental Protection Agency (USEPA) protocols, "Method for the Determination of Asbestos in Bulk Building Materials," EPA 600/4-93/116, 1993. All reported percentages are by visual estimates. In the case of nonhomogeneous samples, each material or layer is analyzed separately and the reported percentages are based on the total sample as received, unless other instructions are received from the client. The samples were received in acceptable condition.

NVLAP Laboratory Accreditation Number: 102081-0

ANALYST:


 Todd Giorgi
 Microscopist

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- This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.
- This report relates only to the above items tested.

LEGEND TECHNICAL SERVICES, INC.
 88 Empire Drive, St. Paul, MN 55103 - Telephone: 651-642-1150, Fax: 651-642-1239

CHAIN-OF-CUSTODY RECORD
 Results get printed to: MAIL@LTD5.MN.COM + L.TJohnson@LTD5.MN.COM

Client Name: <u>ALS</u>		Bill To: <u>SAME</u>		Analysis			
Address: <u>8441 Wayzata Blvd.</u>		Address:					
<u>Suite 103</u>		PO #:					
City: <u>Minneapolis, MN 55426</u>		Fax: <u>763-545-7553</u>					
Att: <u>Lloyd Johnson</u>		Project #: <u>F12-042</u>					
Phone: <u>763-545-5510</u>		Sample Description					
Project Name:							
Item No.	Field ID	Sample Description	Collectible Date	Time	Sample Matrix	Lab ID No.	Number of Containers
1	2A	Vermiculite-AMS Attic	3/20/12	6:00 PM	Bulk	1	
2	2A					2	
3	2C					3	
4	2D					4	
5	2E					5	
6	2F					6	
7	7A					7	
8							
9							
10							
Sample Collector (Please Print): <u>Mark Allen</u>		Date: <u>3/20/12</u>		Time: <u>9:00 PM</u>		Accepted By: <u>[Signature]</u>	
Comments:		Date: <u>3/20/12</u>		Time: <u>9:55</u>		Receiver By Lab: <u>[Signature]</u>	

PLEASE REVIEW TERMS AND CONDITIONS ON BACK BEFORE SIGNING
 White Copy - Client will accompany as Shipment to Lab Yellow Copy - Lab Pink Copy - Customer or Field Copy



EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn: Mark Meier
Applied Environmental Sciences, Inc(AES)
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Customer ID: APPL66
Customer PO:
Received: 03/31/11 2:35 PM
EMSL Order: 351101610

Fax: (763) 545-7883 Phone: (763) 545-5510
Project: F10-288

EMSL Proj:
Analysis Date: 4/1/2011

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

Table with 7 columns: Sample, Description, Appearance, % Fibrous, % Non-Fibrous, Asbestos % Type. Rows include samples 1A through 6A with their respective descriptions and analysis results.

Initial report from 04/01/2011 09:18:37

Analyst(s) Lynn Scott (15)

Rachel Travis, Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported 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. 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. Non-ferrous organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0



EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn: Mark Meier
Applied Environmental Sciences, Inc(AES)
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Customer ID: APPL66
Customer PO:
Received: 03/31/11 2:35 PM
EMSL Order: 351101610

Fax: (763) 545-7883 Phone: (763) 545-5510
Project: F10-288

EMSL Proj:
Analysis Date: 4/1/2011

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

Table with 6 columns: Sample, Description, Appearance, % Fibrous, % Non-Fibrous, Asbestos % Type. Rows 7A-7F show Vermiculite analysis results with varying percentages of non-fibrous mica and actinolite.

Initial report from 04/01/2011 09:18:37

Analyst(s) Lynn Scott (15)

Rachel Travis, Laboratory Manager or other approved signatory

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EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn: **Mark Meier**
Applied Environmental Sciences, Inc(AES)
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Customer ID: APPL66
Customer PO:
Received: 03/31/11 2:35 PM
EMSL Order: 351101610

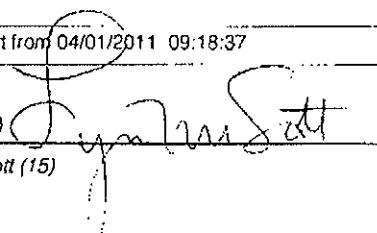
Fax: (763) 545-7883 Phone: (763) 545-5510
Project: F10-288


EMSL Proj:
Analysis Date: 4/1/2011

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
7G 351101610-0013	Vermiculite	Tan/Gold Non-Fibrous Homogeneous		5% Non-fibrous (other) 95% Mica	<1% Actinolite
7H 351101610-0014	Vermiculite	Tan/Gold Non-Fibrous Homogeneous		5% Non-fibrous (other) 95% Mica	None Detected
7I 351101610-0015	Vermiculite	Tan/Gold Non-Fibrous Homogeneous		5% Non-fibrous (other) 95% Mica	None Detected

Initial report from 04/01/2011 09:18:37

Analyst(s) 
Lynn Scott (15)


Rachel Travis, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported 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. 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. Non-triable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

351101610

EMSL ANALYTICAL, INC.
14375 23RD AVE NORTH
MINNEAPOLIS, MN 55447
PHONE: (763) 449-4922
FAX: (763) 449-4924

Company: HEB EMSL-Bill to: Same Different
 If Bill to is Different, note instructions in Comments**
 Street: 8441 Wenzel Blvd S, Ste 103 Third Party Billing requires written authorization from third party
 City: Minneapolis State/Province: MN Zip/Postal Code: 55126 Country: _____
 Report To (Name): Mark Mauer Fax #: 763 449 7853
 Telephone #: 763 449 5400 Email Address: mark.mauer@hebl.com
 Project Name/Number: FIR 238 U.S. State Samples Taken: _____
 Please Provide Results: Fax Email Purchase Order

Turnaround Time (TAT) Options* - Please Check
 3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week
 *For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air
 NIOSH 7400
 w/ OSHA 8hr. TWA
 PLM - Bulk (reporting limit)
 PLM EPA 600/R-93/116 (<1%)
 PLM EPA NOB (<1%)
 Point Count
 400 (<0.25%) 1000 (<0.1%)
 Point Count w/Gravimetric
 400 (<0.25%) 1000 (<0.1%)
 NYS 198.1 (friable in NY)
 NYS 198.6 NOB (non-friable-NY)
 NIOSH 9002 (<1%)
 TEM - Air 4-4.5hr TAT (AHERA only)
 AHERA 40 CFR, Part 763
 NIOSH 7402
 EPA Level II
 ISO 10312
 TEM - Bulk
 TEM EPA NOB
 NYS NOB 198.4 (non-friable-NY)
 Chatfield SOP
 TEM Mass Analysis-EPA 600 sec. 2.5
 TEM - Water: EPA 100.2
 Fibers >10µm Waste Drinking
 All Fiber Sizes Waste Drinking
 TEM- Dust
 Microvac - ASTM D 5755
 Wipe - ASTM D6480
 Carpet Sonication (EPA 600/J-93/167)
 Soil/Rock/Vermiculite
 PLM CARB 435 - A (0.25% sensitivity)
 PLM CARB 435 - B (0.1% sensitivity)
 TEM CARB 435 - B (0.1% sensitivity)
 TEM CARB 435 - C (0.01% sensitivity)
 EPA Protocol (Semi-Quantitative)
 EPA Protocol (Quantitative)
 Other: _____
 Check For Positive Stop - Clearly Identify Homogenous Group

Samplers Name: _____ Samplers Signature: _____

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1A	2x4 CT white w/ long thin fibers, lighter pattern		
2A	2x4 CT white w/ long thin fibers, heavy pattern		
3A	Black Wall Panel Adhesive		
4A	Dark Brown Peels on Wall		
5A	Brown Peck on Wall		
6A	Brown Adhesive Between Panel & Peck		
7A	Vermiculite		
7B			

Client Sample # (s): 1A : 7E Total # of Samples: 15
 Relinquished (Client): [Signature] Date: 3/31/11 Time: 4:35
 Received (Lab): [Signature] WI Date: 3/31/11 Time: 2:35 pm
 Comments/Special Instructions: _____

LABORATORY REPORT

ASBESTOS BULK ANALYSIS

Client: **Applied Environmental Sciences, Inc.**
 8441 Wayzata Boulevard, Suite 103
 Minneapolis, MN 55426

CEI Lab Code: A07-3853
 Received: 05-14-07
 Analyzed: 05-16-07
 Reported: 05-16-07
 Analyst: Virginia Wilson

Project: F07-175

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
1A	A604787	<u>CEILING TILE</u> Heterogeneous, White, Grey, Fibrous, Bound PERL 35 % CELL 35 % PAINT 5 % FBGL 25 %	ND
2A	A604788	<u>BASEBOARD</u> Homogeneous, Brown, Non-fibrous, Bound VINYL 100 %	ND
3A	A604789	<u>BASEBOARD ADHESIVES</u> Homogeneous, Yellow, Black, Fibrous, Bound MAST 98 % TALC 2 % NTREM <1 % CELL <1 %	ND
4A	A604790	<u>CEILING TILE</u> Heterogeneous, White, Grey, Fibrous, Bound PERL 35 % CELL 35 % PAINT 5 % FBGL 25 %	ND
5A	A604791	<u>BASEBOARD</u> Homogeneous, Black, Non-fibrous, Bound VINYL 100 %	ND
6A	A604792	<u>BASEBOARD ADHESIVE</u> Homogeneous, Off-white, Non-fibrous, Bound MAST 97 % PAINT 3 %	ND

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
7A	A604793	<u>CEILING TILE</u> Heterogeneous, Off-white, Grey, Fibrous, Bound CHRY 2% BIND 23% CELL 40% PAINT 5% FBGL 30%	CHRY 2%
8A	A604794	<u>CEILING TILE</u> Heterogeneous, White, Grey, Fibrous, Bound PERL 35% CELL 35% PAINT 5% FBGL 25%	ND
9A	A604795	<u>FLOOR TILE</u> Homogeneous, Tan, Non-fibrous, Tightly Bound VINYL 90% MICA 10%	ND
10A	A604796	<u>FT MASTIC</u> Homogeneous, Yellow, Non-fibrous, Tightly Bound MAST 100% CELL <1%	ND
11A	A604797A	<u>CEILING TILE</u> Heterogeneous, White, Brown, Fibrous, Bound PAINT 10% CELL 90%	ND
	A604797B	<u>CEILING TILE MASTIC</u> Homogeneous, Brown, Non-fibrous, Bound MAST 100%	ND

Fragments of CT Mastic were loose in sample bag.

The following definitions apply to the abbreviations used in the ASBESTOS BULK ANALYSIS REPORT:

CHRY = Chrysotile	CELL = Cellulose	DEBR = Debris
AMOS = Amosite	FBGL = Fibrous Glass	BIND = Binder
CROC = Crocidolite	ORGN = Organics	SILI = Silicates
TREM = Tremolite	SYNT = Synthetics	GRAV = Gravel
ANTH = Anthophyllite	WOLL = Wollastonite	MAST = Mastic
ACTN = Actinolite	CERWL = Ceramic Wool	PLAS = Plaster
ND = None Detected	NTREM = Non-Asbestiform Tremolite	PERL = Perlite
NANTH = Non-Asbestiform Anthophyllite	FBGY = Fibrous Gypsum	RUBR = Rubber
		VER = Vermiculite

CLIENT: Applied Environmental Sciences, Inc.

PROJECT: F07-175

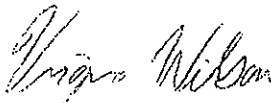
CEI LAB CODE: A07-3853

Stereoscopic microscopy and polarized light microscopy coupled with dispersion staining is the analytical technique used sample identification. The percentage of each component is visually estimated by volume. These results pertain only to the samples analyzed. The samples were analyzed as submitted by the client and may not be representative of the larger material in question. Unless notified in writing to return samples, Carolina Environmental, Inc. will discard all bulk samples after 30 days.

Many vinyl floor tiles have been manufactured using greater than 1% asbestos. Often the asbestos was milled to a fiber size below the detection limit of polarized light microscopy. Therefore, a "None Detected" (ND) reading on vinyl floor tile does not necessarily exclude the presence of asbestos. Transmission electron microscopy provides a more conclusive form of analysis for vinyl floor tiles.

It is certified by the signature below that Carolina Environmental, Inc. is accredited by the National Voluntary Accreditation Program (NVLAP) for the analysis of asbestos in bulk materials. The accredited test method is EPA / 600 / M4-82 / 020 for the analysis of asbestos in building materials. Procedures described in EPA / 600 / R-93 / 116 have been incorporated where applicable. The detection limit for the method is 0.1% (trace amount). Carolina Environmental, Inc.'s NVLAP accreditation number is #101768-0. This report is not to be used to claim product endorsement by NVLAP or any agency of the U. S. Government. This report and its contents are only valid when reproduced in full. Dust and soil analyses for asbestos using PLM are not covered under NVLAP accreditation.

ANALYST



REVIEWED BY



Tianbao Bai, Ph.D.
Laboratory Director

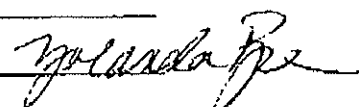
End of Report

Bulk Sample Analysis Report**For Annandale Public Schools
Annandale Middle School****IEA Project #6441/1001****Sampling Date(s): 3/26/01**

IEA Sample #/ Location	Analyst's Description	Layer % of total sample	Asbestos Components and their area %	Non-Asbestos Components and their area %*
6441/1001-1B 1' x 1' CT Mastic/Rm 120/ W0A	Two layers: a. orange, fibrous	50%	None Detected	13=100%
	b. tan, nonfibrous	50%	None Detected	18=100%
6441/1001-2B Vermiculite Fill/1922 Artic X0A	One layer: a. tan, fibrous	100%	>1.3% Actinolite	19=<97.99%
6441/1001-3B 1' x 1' CT Mastic/Rm 401/ W0D	Three layers: a. tan, fibrous	10%	None Detected	13=100%
	b. brown, nonfibrous	80%	None Detected	18=100%
	c. orange, fibrous	10%	None Detected	13=100%
6441/1001-4B 1961 Hallway/ 12" FT/K2B	Two layers: a. white, nonfibrous	97%	None Detected	11=50%, 20=50%
	b. black, nonfibrous	3%	None Detected	16=100%
6441/1001-5B 1980 Hallway/ 12" FT/K2B	Two layers: a. tan/white, nonfibrous	95%	None Detected	11=50%, 20=50%
	b. black, fibrous	5%	5% Chrysotile**	16=95%
6441/1001-6B 1980 Hallway/ 2' x 4' CT/13J	Two layers: a. white, nonfibrous	5%	None Detected	9=100%
	b. tan, fibrous	95%	None Detected	7=40%, 13=60%

* A "component key" has been provided in this report.

** Found in mastic only.

Date of Analysis: 4/3/01Analyzed by: Yolanda Pope Quality Control by: ---Reviewed by: 

Bulk Sample Analysis Report

For Annandale Public Schools
Annandale Middle School

IEA Project #6441/1001

Sampling Date(s): 3/26/01

IEA Sample #/ Location	Analyst's Description	Layer % of total sample	Asbestos Components and their area %	Non-Asbestos Components and their area %*
6441/1001-7H Pipe Fitting Ins/Rm 412/ A4A	Three layers: a. white, nonfibrous	10%	None Detected	9=100%
	b. white, fibrous	10%	None Detected	13=100%
	c. gray, fibrous	80%	None Detected	7=50%, 11=50%
6441/1001-8B 1' x 1' CT/ 1830 Hallway/ 11E	Two layers: a. white, nonfibrous	10%	None Detected	9=100%
	b. green, fibrous	90%	None Detected	7=70%, 11=30%
6441/1001-9B Pipe Fitting Ins/Rm 411/ A4A	Three layers: a. white, nonfibrous	15%	None Detected	9=100%
	b. tan, fibrous	10%	None Detected	13=100%
	c. gray, fibrous	75%	None Detected	7=50%, 11=50%
6441/1001-10B Pipe Fitting Ins/Rm 410/ A4A	Three layers: a. white, nonfibrous	5%	None Detected	9=100%
	b. tan, fibrous	5%	None Detected	13=100%
	c. gray, fibrous	80%	None Detected	7=50%, 11=50%
6441/1001-11B Brown Press Board Mastic/ Pump Rm/Y0A	One layer: a. brown, fibrous	100%	None Detected	13=2%, 18=98%

* A "component key" has been provided in this report.

Date of Analysis: 4/3/01Analyzed by: Yolanda PopeQuality Control by: Yolanda PopeReviewed by: Yolanda Pope

COMPONENT KEY

The identity of asbestos components present in each layer of a sample may be found by matching the number(s) under the heading "Asbestos Components and Their Area%" with those listed below.

- 1 -Chrysotile
- 2 -Amosite
- 3 -Crocidolite
- 4 -Anthophyllite
- 5 -Actinolite
- 6 -Tremolite

The identity of non-asbestos components present in each layer of a sample may be found by matching the number(s) under the heading "Non-Asbestos Components and Their Area%" with those listed below.

- | | |
|------------------|------------------------|
| 7 -Mineral Wool | 15 -Carpet Fibers |
| 8 -Perlite | 16 -Tar |
| 9 -Paint | 17 -Plastic |
| 10 -Vinyl | 18 -Glue |
| 11 -Binder | 19 -Vermiculite |
| 12 -Wollastonite | 20 -Carbonate Minerals |
| 13 -Cellulose | 21 -Bug Parts |
| 14 -Foil | 22 -Other _____ |

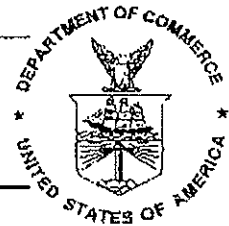
National Institute
of Standards and Technology



National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation



Page: 1 of 1

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101249-0

INSTITUTE FOR ENVIRONMENTAL ASSESSMENT

9201 West Broadway, Suite 600

Brooklyn Park, MN 55445

Ms. Yolanda Pope

Phone: 763-315-7900 Fax: 763-315-7920

E-Mail: yolandap@ieainstitute.com

NVLAP Code

Designation

18/A01

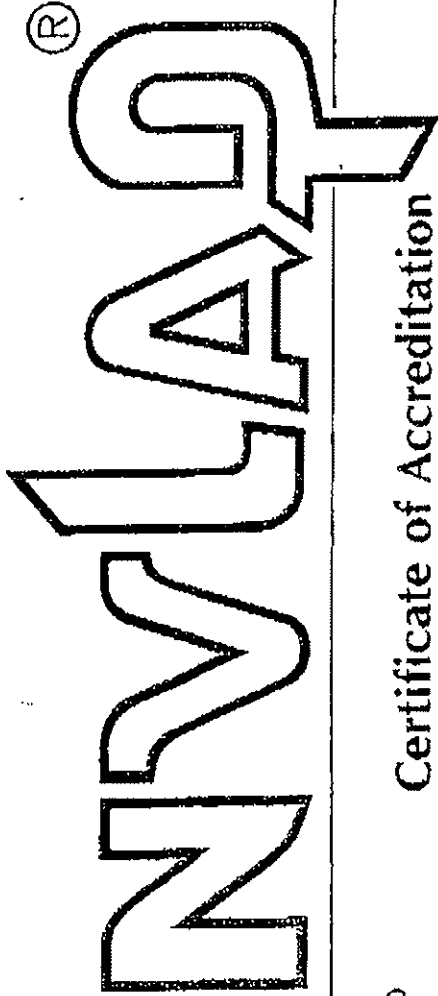
EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

June 30, 2001

Effective through

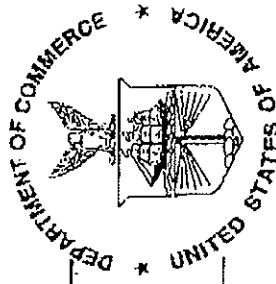
For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology



ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation



INSTITUTE FOR ENVIRONMENTAL ASSESSMENT

BROOKLYN PARK, MN

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

June 30, 2001

Effective through

David F. Alderman

For the National Institute of Standards and Technology

NVLAP Lab Code: 101249-0



9201 West Broadway North
 Brooklyn Park, MN 55445
 (763) 315-7900 1-800-233-9513

CHAIN OF CUSTODY

© INSTITUTE FOR ENVIRONMENTAL ASSESSMENT, INC.

# OF SAMPLES RECEIVED	
# OF SAMPLES AT	\$ 22
# OF SAMPLES AT	\$
# OF SAMPLES AT	\$
TOTAL #	FOR \$

CLIENT: Annandale ISD #876
 PROJECT # 6941-1001
 BUILDING NAME: Annandale Middle School
 PROJECT: 125 Cherry Street N.
 ADDRESS: Annandale, MN 55302
 PHONE NO.: 320-274-2351
 CONTACT: _____

TAX NO. _____
 OTHER INFORMATION _____
 PAGER, PHONE OR FAX NO. _____
 BY: Jeff Carlson
 DATE: 4-4-01 TIME: 8 AM
 DATE: 4/3/01 TIME: 2:00 PM

Sample #	Comments/Explanation Location/Equipment	B, P, H, I, O, C/MAT.	Area of Volume	MATRIX			ANALYSIS REQUESTED				FILTER TYPE				
				Air	Bulk	Dust	Other	PCM*	PLM*	TEM	Other	MCE	PC	OS	OS
1B	1'x1' CT master - Room 120	WOA		X				X							
2B	Wax/mastic fill - 1922 Attic	XOA		X				X							
3B	1'x1' CT mastic - Room 401	WOD		X				X							
4B	1961 Hallway - 12" floor tile	K2B		X				X							
5B	1980 Hallway - " "	K2B		X				X							
6B	1980 Hallway - 2'x4' CT.	T3J		X				X							
7B	Pipe fitting ris - Room 412	A4A		X				X							
8B	1'x1' CT. - 1980 Hallway	T1E		X				X							
9B	Pipe fitting ris - Room 411	A4A		X				X							
10B	" "	A4A		X				X							
11B	Between press board master - Pump	YOA		X				X							

The MN Department of Health Alternative Indoor Air Standard for this project is flcc.

SAMPLED BY	DATE	TIME	DELIVERED BY	DATE	TIME	RECEIVED BY	DATE	TIME
J. Carlson	3-26-01		J. Carlson	3-28-01		Blonde Bob	3/28/01	12:00
RECEIVED BY	DATE	TIME	DELIVERED BY	DATE	TIME	ANALYSIS BY	DATE	TIME
J. Carlson	3-26-01		J. Carlson	3-28-01		Valandra Bob	4/3/01	18:15

FOR LAB USE ONLY

ENTERED BY _____ DATE _____
 DELIVERED BY _____ DATE _____

CI952175
EMSL

ECSU BULK ASBESTOS LABORATORY REPORT

ORIGINATING ECSU: CENTRAL MINNESOTA ECSU
 P. O. BOX 1576, 3335 WEST ST. GERMAIN
 ST. CLOUD, MN 56901
 PHONE: 612-255-3236
 FAX: 612-255-2998

LABORATORY: MILAN ASBESTOS LABORATORY
 212 MAIN STREET, P.O. BOX 60
 MILAN, MN 56282
 PHONE: 612-734-4406
 FAX: 612-734-4407

CONTACT PERSON: Mr. Ron G. Wieber Phone (612) 255-3718

CONTACT PERSON: JULIE B. TRELSTAD

PROJECT LOCATION: ISD-876 Annandale Schools

CLIENT NUMBER: C-18 LOG-IN NUMBER:

PROJECT NUMBER: 876-CAN BATCH NUMBER:

NUMBER OF SAMPLES RECEIVED:

SAMPLES: 26 SAMPLER'S SIGNATURE: Thomas E. Klein

RECEIVED IN LAB BY: [Signature] DATE: 6/20/95

DATE SENT TO LAB: JUN 28 1995

LOGGED IN BY: [Signature] DATE:

CARRIER: Spee-Dee Delivery Service

NUMBER OF SAMPLES ANALYZED:

SENDER'S SIGNATURE: Roy Wieber

ANALYSTS SIGNATURE:

ECSU INSTRUCTIONS TO LAB: TEST UNTIL POSITIVE
 TEST ALL SAMPLES IN BATCH
 (IF NO INSTRUCTIONS ARE CHECKED, ALL SAMPLES IN BATCH WILL BE ANALYZED)

ECSU NOTIFIED BY: _____ DATE:

ANALYTICAL METHOD: PLM W/DISPERSION STAINING: EPA/800 R-93/116

SAMPLE NUMBER	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DESCRIPTION	ASBESTOS FIBERS		NON-ASBESTOS FIBERS		COMMENTS
				%	TYPE	%	TYPE	
C101	6-14-95	Hall #4 above ducts	Ceiling tile					
W101	6-14	Room 505 C (outlet)	Wall plaster					
F101	6-14	Room #507 NW corner	Floor tile					
F102	6-14	" "	Rubber base					
F103	6-14	" "	" "					
C102	6-14	Hall #7 by stairs	24" susp. G.H.					
F104	6-14	Ticket Booth South	9x9 Floor tile					
F105	6-14	" "	" "					
W102	6-14	" "	Plaster					
W103	6-14	" "	" "					

62982975
EMSL

ECSU BULK ASBESTOS LABORATORY REPORT

ORIGINATING ECSU: CENTRAL MINNESOTA ECSU
P. O. BOX 1576, 3335 WEST ST. GERMAIN ST. CLOUD, MN 56301
PHONE: 612-255-3238
FAX: 512-255-2898

CONTACT PERSON: Mr. Ron G. Wieber Phone (612) 255-3718

PROJECT LOCATION: ISD-876 Annandale Schools

PROJECT NUMBER: 876-CAW BATCH NUMBER: _____

SAMPLES: 26 SAMPLER'S SIGNATURE: Thomas E. Klein

DATE SENT TO LAB: JUN 28 1995

CARRIER: Speed-Dee Delivery Service

SENDER'S SIGNATURE: Roy Wieber

ECSU INSTRUCTIONS TO LAB: TEST UNTIL POSITIVE
 TEST ALL SAMPLES IN BATCH
(IF NO INSTRUCTIONS ARE CHECKED, ALL SAMPLES IN BATCH WILL BE ANALYZED)

LABORATORY: MILAN ASBESTOS LABORATORY
212 MAIN STREET, P.O. BOX 80
MILAN, MN 56262
PHONE: 612-734-4406
FAX: 612-734-4407

CONTACT PERSON: JULIE B. TRELSTAD

CLIENT NUMBER: C-16 LOG-IN NUMBER: _____

NUMBER OF SAMPLES RECEIVED: _____ DATE: _____

RECEIVED IN LAB BY: _____ DATE: 6/30/95

LOGGED IN BY: _____ DATE: _____

NUMBER OF SAMPLES ANALYZED: _____ DATE: _____

ANALYSTS SIGNATURE: _____

ECSU NOTIFIED BY: _____ DATE: _____

ANALYTICAL METHOD: PLM WIDISPERSION STAINING: EPA/600 R-93/116

SAMPLE NUMBER	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DESCRIPTION	ASBESTOS FIBERS		COMMENTS
				%	TYPE	
W104	6-14	Ticket Booth South	Plaster			
F106	6-14	Room #102	Green Carpet			
C103	6-14	"	16x32 C.I. + 1. Plain			
C104	6-14	"	12x12 C.I. + 1. ^{Big} Holes			
F107	6-14	Gym (#111)	Red Staining			
C105	6-14	Room #112	2'x4' Plain White C.I.			
F108	6-14	" #216	Carpet Burnt Ding			
F109	6-14	" #207	" 2 tone Green			
F110	6-14	Hall #11	6" Base rubber			
F111	6-14	Room #307	Carpet Brown Grey			

4952971
EMSL

ECSU BULK ASBESTOS LABORATORY REPORT

ORIGINATING ECSU: CENTRAL MINNESOTA ECSU
 P. O. BOX 1576, 3335 WEST ST. GERMAIN
 ST. CLOUD, MN 56301
 PHONE: 812-255-3236
 FAX: 812-255-2998

CONTACT PERSON: Mr. Ron G. Wieber Phone (612) 255-3718

PROJECT LOCATION: FSD-876 Annandale Schools

PROJECT NUMBER: 876-CAN BATCH NUMBER: _____

SAMPLES: 26 SAMPLER'S SIGNATURE: Thomas E. Klein

DATE SENT TO LAB: JUN 28 1995

CARRIER: Spee-Dee Delivery Service FEDEX

SENDER'S SIGNATURE: Bory Wukh

LABORATORY: MILAN ASBESTOS LABORATORY
 212 MAIN STREET, P.O. BOX 60
 MILAN, MN 56262
 PHONE: 812-794-4406
 FAX: 812-794-4407

CONTACT PERSON: JULIE B. TRELSTAD

CLIENT NUMBER: C-18 LOG-IN NUMBER: _____

NUMBER OF SAMPLES RECEIVED: _____

RECEIVED IN LAB BY: [Signature] DATE: 6/30/95

LOGGED IN BY: _____ DATE: _____

NUMBER OF SAMPLES ANALYZED: _____

ANALYSTS SIGNATURE: _____

ECSU NOTIFIED BY: _____ DATE: _____

ECSU INSTRUCTIONS TO LAB: TEST UNTIL POSITIVE
 TEST ALL SAMPLES IN BATCH
 (IF NO INSTRUCTIONS ARE CHECKED, ALL SAMPLES IN BATCH WILL BE ANALYZED)

ANALYTICAL METHOD: PLM W/DISPERION STAINING: EPA/600 R-93/116

SAMPLE NUMBER	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DESCRIPTION	ASBESTOS FIBERS		NON-ASBESTOS FIBERS		COMMENTS
				%	TYPE	%	TYPE	
F112	6-14	Bar Room # 302	Carpet Park Green					
W105	6-14	Room #123 ^{Switch} plate	Plaster					
F113	6-14	Room 401	Carpet Grey					
F114	6-14	" 404 "	" Brauntweed					
W106	6-14	Coast #6	Plaster					
W107	6-14	Hall #9	"					

CI952975
EMSL

ECSU BULK ASBESTOS LABORATORY REPORT

ORIGINATING ECSU: CENTRAL MINNESOTA ECSU
P. O. BOX 1576, 3335 WEST ST. GERMAN
ST. CLOUD, MN 56301

PHONE: 612-255-3238
FAX: 612-255-2898

LABORATORY: MILAN ASBESTOS LABORATORY
212 MAIN STREET, P.O. BOX 80
MILAN, MN 56262

PHONE: 612-734-4406
FAX: 612-734-4407

CONTACT PERSON: Mr. Ron G. Wieber Phone (612) 255-3718

CONTACT PERSON: JULIE B. TRELSTAD

PROJECT LOCATION: ESD-876 Annandale Schools

CLIENT NUMBER: C-18 LOG-IN NUMBER:

PROJECT NUMBER: 876-CAU BATCH NUMBER:

NUMBER OF SAMPLES RECEIVED:

SAMPLES: 26 SAMPLER'S SIGNATURE: Thomas E. Klein

RECEIVED IN LAB BY: [Signature] DATE: 6/30/95

DATE SENT TO LAB: JUN 28 1995

LOGGED IN BY: [Signature] DATE: 6/30/95

CARRIER: Spec-Dee Delivery Service

NUMBER OF SAMPLES ANALYZED:

SENDER'S SIGNATURE: Rod Wieber

ANALYSTS SIGNATURE:

ECSU INSTRUCTIONS TO LAB: TEST UNTIL POSITIVE

ECSU NOTIFIED BY: _____ DATE: _____

TEST ALL SAMPLES IN BATCH

IF NO INSTRUCTIONS ARE CHECKED, ALL SAMPLES IN BATCH WILL BE ANALYZED

ANALYTICAL METHOD: PLM WIDISPERSION STAINING: EPA800 R-93/116

SAMPLE NUMBER	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DESCRIPTION	ASBESTOS FIBERS		NON-ASBESTOS FIBERS		COMMENTS
				%	TYPE	%	TYPE	
C101	6-14-95	Hall #4 above ducts	Ceiling tile					
W101	6-14	Room 505 c (outlet)	Wall plaster					
F101	6-14	Room #507	Floor tile					
F102	6-14	" "	Rubber base					
F103	6-14	" "	" "					
C102	6-14	Hall #7 by stairs	2x4' Susp. Ctl.					
F104	6-14	Ticket Booth South	9x9 Floor tile					
F105	6-14	" "	" "					
W102	6-14	" "	Plaster					
W103	6-14	" "	" "					

NVLAP CODE #: 2095 PAT ID #: 14325
POINT COUNT ALL TEST RESULTS BELOW TEN PERCENT ACM.

ND = NONE DETECTED NT = NOT TESTED

2

62982475
EMSL

ECSU BULK ASBESTOS LABORATORY REPORT

ORIGINATING ECSU: CENTRAL MINNESOTA ECSU
P. O. BOX 1576, 3335 WEST ST. GERMAIN
ST. CLOUD, MN 56301
PHONE: 612-255-3236
FAX: 612-255-2998

LABORATORY: MILAN ASBESTOS LABORATORY
212 MAIN STREET, P.O. BOX 60
MILAN, MN 56252
PHONE: 612-734-4408
FAX: 612-734-4407

CONTACT PERSON: Mr. Ron G. Wieber Phone (612) 255-3718

CONTACT PERSON: JULIE B. TRELSTAD

PROJECT LOCATION: ISD-876 Annandale Schools

CLIENT NUMBER: C-18 LOG-IN NUMBER:

PROJECT NUMBER: 876-CAN BATCH NUMBER:

NUMBER OF SAMPLES RECEIVED:

SAMPLES: 26 SAMPLER'S SIGNATURE: Thomas E. Klein

RECEIVED IN LAB BY: *[Signature]* DATE: 6/30/95

DATE SENT TO LAB: JUN 28 1995

LOGGED IN BY: *[Signature]* DATE: 6/30/95

CARRIER: Spee-Dee Delivery Service FED EX

NUMBER OF SAMPLES ANALYZED:

SENDER'S SIGNATURE: *[Signature]*

ANALYSTS SIGNATURE:

ECSU INSTRUCTIONS TO LAB: TEST UNTIL POSITIVE
 TEST ALL SAMPLES IN BATCH
(IF NO INSTRUCTIONS ARE CHECKED, ALL SAMPLES IN BATCH WILL BE ANALYZED)

ECSU NOTIFIED BY: _____ DATE: _____

SAMPLE NUMBER	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DESCRIPTION	ASBESTOS FIBERS		NON-ASBESTOS FIBERS		COMMENTS
				%	TYPE	%	TYPE	
W104	6-14	Ticket Booth South	Plaster					
F106	6-14	Room #102	Green Carpet					
C103	6-14	" "	16x32 C.I.+2 Plain					
C104	6-14	" "	12x12 C.I.+1 - Helix - Big 1x1/4 set of large South holes					
F107	6-14	Gym (#111)	Red Stepping					
C105	6-14	Room #112	2x4' Plain White C.I.T.					
F108	6-14	" #216	Carpet Burnt Orange					
F109	6-14	" #207	" Stone Green					
F110	6-14	Hall #11	6" Base Rubber					
F111	6-14	Room #307	Carpet Brown Grey					

ANALYTICAL METHOD: PLM W/DISPERSION STAINING: EPA/600 R-93/116

③

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ECSU BULK ASBESTOS LABORATORY REPORT

ORIGINATING ECSU: CENTRAL MINNESOTA ECSU
P. O. BOX 1575, 3335 WEST ST. GERMAIN
ST. CLOUD, MN 56301
PHONE: 612-255-3236
FAX: 612-255-2998

LABORATORY: MILAN ASBESTOS LABORATORY
212 MAIN STREET, P.O. BOX 80
MILAN, MN 55262
PHONE: 612-734-4406
FAX: 612-734-4407

CONTACT PERSON: Mr. Ron G. Wieber Phone (612) 255-3718

CONTACT PERSON: JULIE B. TRELSTAD

PROJECT LOCATION: FSD-876 Annandale Schools

CLIENT NUMBER: C-18 LOG-IN NUMBER:

PROJECT NUMBER: 876-CAN BATCH NUMBER:

NUMBER OF SAMPLES RECEIVED:

SAMPLES: 26 SAMPLER'S SIGNATURE: Thomas E. Klein

RECEIVED IN LAB BY: [Signature] DATE: 6/20/95

DATE SENT TO LAB: JUN 28 1995

LOGGED IN BY: [Signature] DATE:

CARRIER: Spee-Dee Delivery Service FEDEX

NUMBER OF SAMPLES ANALYZED:

SENDER'S SIGNATURE: [Signature]

ANALYSTS SIGNATURE:

ECSU INSTRUCTIONS TO LAB: TEST UNTIL POSITIVE
 TEST ALL SAMPLES IN BATCH

ECSU NOTIFIED BY: DATE:

(IF NO INSTRUCTIONS ARE CHECKED, ALL SAMPLES IN BATCH WILL BE ANALYZED)

ANALYTICAL METHOD: PLM W/DISPERSION STAINING: EPA/808 R-93/119

SAMPLE NUMBER	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DESCRIPTION	ASBESTOS FIBERS		NON-ASBESTOS FIBERS		COMMENTS
				%	TYPE	%	TYPE	
F117	6-14	Car Room # 302	Carpet Park Green					
W105	6-14	Room #123 ^{3rd} Stair	Plaster					
F113	6-14	Room 401 Heat vent	Carpet Grey					
F114	6-14	" 404 "	" Brown tiled					
W106	6-14	East of	Plaster					
W107	6-14	Hall #9	"					

Westmont, NJ
609-838-4800

Piscataway, NJ
908-981-0550

Carle Place, NY
516-997-7231

Manhattan, NY
212-290-0051

Melbourne, FL
407-725-5223

Ann Arbor, MI
313-668-6810

San Mateo, CA
415-570-5401

Smyrna, GA
404-333-6066



Central Minnesota Educational Cooperative Service
3335 W. St. Germain, Suite 105
P.O. Box 1576
St. Cloud, MN 56302

Tuesday, July 11, 1995

Ref Number: NY95955

POLARIZED LIGHT MICROSCOPY (PLM)

Project: 876-CAN/ ISD-876 ANNANDALE SCHOOLS

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS	
				%	TYPE	% FIBROUS	% NONFIBROUS
C101	HALL#4 ABOVE DUCTS	Grey Fibrous Homogeneous	Teased	None Detected		40.% Cellulose 60.% Glass	
W101	ROOM 505C (OUTLET)	Grey Non-Fibrous Homogeneous	Crushed	None Detected			20.% Quartz 30.% Ca Carbonate 50.% Other
F101	ROOM #507 NORTH WEST CORNER.	Black Fibrous Homogeneous	Crushed	8.% Chrysotile			10.% Quartz 40.% Ca Carbonate 42.% Other
F102	ROOM #507 NORTH WEST CORNER	Black Non-Fibrous Homogeneous	Dissolved	None Detected			100.% Other
F103	ROOM #507 NORTH WEST CORNER	Black Non-Fibrous Homogeneous	Dissolved	None Detected			100.% Other
C102	HALL #7 BY STAIRS	Grey Fibrous Homogeneous	Teased	None Detected		40.% Cellulose 60.% Glass	

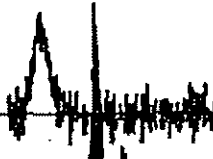
Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Brian Reidner
Analyst

Laboratory
Supervisor

Other Approved
Signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. Floor tiles and wipes should be tested with either SEM or TEM. The above test report relates only to the items tested. This report may only be reproduced in full with written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. All "NVLAP" reports with NVLAP logo must contain at least one signature to be valid. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.





Central Minnesota Educational Cooperative Service
 3335 W. St. Germain, Suite 105
 P.O. Box 1576
 St. Cloud, MN 56302

Tuesday, July 11, 1995


Ref Number: NY95955


POLARIZED LIGHT MICROSCOPY (PLM)

Project: 876-CAN/ ISD-876 ANNANDALE SCHOOLS

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS	
				%	TYPE	% FIBROUS	% NONFIBROUS
F104	TICKET BOOTH SOUTH	Beige Fibrous Homogeneous	Crushed	5.0%	Chrysotile		5.0% Quartz 60.0% Ca Carbonate 30.0% Other
F105	TICKET BOOTH SOUTH	White Fibrous Homogeneous	Crushed	6.0%	Chrysotile		5.0% Quartz 50.0% Ca Carbonate 39.0% Other
W102	TICKET BOOTH SOUTH	White Non-Fibrous Homogeneous	Crushed		None Detected		30.0% Quartz 40.0% Ca Carbonate 30.0% Other
W103	TICKET BOOTH SOUTH	White Non-Fibrous Homogeneous	Crushed		None Detected		35.0% Quartz 45.0% Ca Carbonate 20.0% Other
W104	TICKET BOOTH SOUTH	White Non-Fibrous Homogeneous	Crushed		None Detected		30.0% Quartz 30.0% Ca Carbonate 40.0% Other
F106	ROOM #102	Green Fibrous Homogeneous	Teased		None Detected	95.0%	Synthetic 5.0% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.


 Brian Reidner
 Analyst


 Laboratory
 Supervisor

Other Approved
 Signatory

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS	
				%	TYPE	% FIBROUS	% NONFIBROUS
C103	ROOM #102	Brown Fibrous Homogeneous	Teased	None Detected		100.0% Cellulose	
C104	ROOM #102	Brown Fibrous Homogeneous	Teased	None Detected		100.0% Cellulose	
F107	GYM (#111)	Red Non-Fibrous Homogeneous	Dissolved	None Detected			10.0% Quartz 50.0% Ca Carbonate 40.0% Other
C105	ROOM #112	Brown Fibrous Homogeneous	Teased	None Detected		100.0% Cellulose	
F108	ROOM #215	Red Fibrous Homogeneous	Teased	None Detected		90.0% Synthetic	5.0% Other
F109	ROOM #207	Green Fibrous Homogeneous	Teased	None Detected		85.0% Synthetic	15.0% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Brian Reidner
Analyst

Laboratory
Supervisor

Other Approved
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Tuesday, July 11, 1995

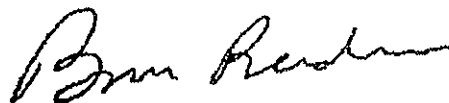
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POLARIZED LIGHT MICROSCOPY (PLM)


Project: 876-CAN/ ISD-876 ANNANDALE SCHOOLS

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS		
				%	TYPE	%	FIBROUS	%
F110	HALL #11	Brown Non-Fibrous Homogeneous	Dissolved		None Detected			100.0% Other
F111	ROOM #307	Brown Fibrous Homogeneous	Teased		None Detected	80.0%	Synthetic	20.0% Other
F112	ROOM #302	Green Fibrous Homogeneous	Teased		None Detected	85.0%	Synthetic	15.0% Other
W105	ROOM #1233 SWITCH PLATE	White Non-Fibrous Homogeneous	Crushed		None Detected			20.0% Quartz 60.0% Ca Carbonate 20.0% Other
F113	ROOM 401 HEAT VENT	Grey Fibrous Homogeneous	Teased		None Detected	90.0%	Synthetic	10.0% Other
F114	ROOM 404 HEAT VENT	Brown Fibrous Homogeneous	Teased		None Detected	85.0%	Synthetic	15.0% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.



Brian Reidner
Analyst



Laboratory
Supervisor

Other Approved
Signatory

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Project: 876-CAN/ ISD-876 ANNANDALE SCHOOLS

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS		NONASBESTOS		
				%	TYPE	%	FIBROUS	%
W106	CUST. #6	White Non-Fibrous Homogeneous	Crushed	None Detected		75.% Ca Carbonate 25.% Other		
W107	HALL #9	White Non-Fibrous Homogeneous	Crushed	None Detected		80.% Ca Carbonate 20.% Other		

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Brian Reidner
Analyst

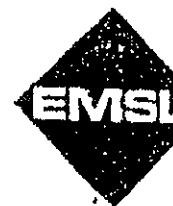
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NY State E-Lap
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LB-039
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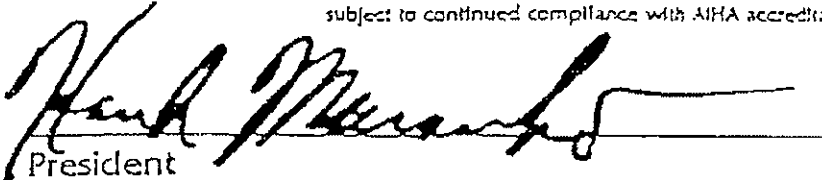
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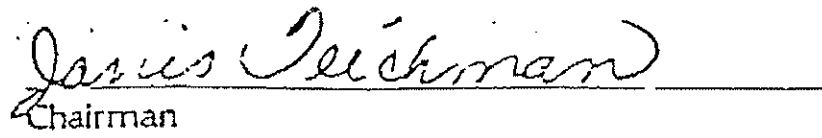
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President
American Industrial Hygiene Association

October 30, 1992

Date



Chairman
Laboratory Accreditation Committee

381

Accreditation Number

**AMERICAN
INDUSTRIAL
HYGIENE
ASSOCIATION**

File

January 23, 1995

Mr. Peter B. Panton
EMSL
108 Haddon Avenue
Westmont NJ 08108

LAB ID #7012

Dear Mr. Panton:

This letter is in response to your request for an extension to your current AIHA Laboratory Accreditation Certificate. I have noted in your file that you are given until August 1, 1995, the maximum six month extension, to complete the process of reaccreditation. Until that time you remain accredited by AIHA.

By continuing to respond to AIHA correspondence in a timely manner we can stay on top of these processes. Thank you for your assistance in the past year.

Sincerely,

Charlotte L. Miller
Manager, Laboratory Accreditation Administration

CLM

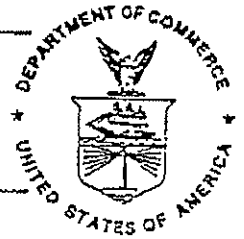
National Institute
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National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO/IEC GUIDE 58:1993
ISO 9002:1994

Scope of Accreditation



AIRBORNE ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 1048 04

EMSL Analytical, Inc.
212 S. Wanger Road
Ann Arbor, MI 48103
Hildegard Hohnke Phone: 313-668-6810

A sub-facility of:

EMSL Analytical, Inc.
108 Haddon Avenue
Westmont, NJ 08108
John Newton Phone: 609-858-4800

<i>NVLAP Code</i>	<i>Designation</i>
18/A02	40 Code of Federal Regulations Chapter I (1-1-87 edition) Part 763, Subpart E, Appendix A or the current U. S. Environmental Protection Agency TEM method for the determination of completion of response actions for asbestos.

July 1, 1995

Effective until

A handwritten signature in cursive script, appearing to read 'Albert Hohnke', written over a horizontal line.

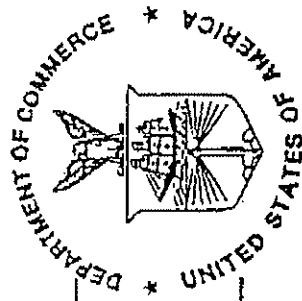
For the National Institute of Standards and Technology

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ANN ARBOR, MI

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AIRBORNE ASBESTOS FIBER ANALYSIS

July 1, 1995

Effective until

Albert E. Holm
For the National Institute of Standards and Technology

APPENDIX III

ASBESTOS-CONTAINING MATERIAL ASSESSMENT

In each functional space, each homogenous material was assessed as to its condition and potential for disturbance.

The model for this system was that described in the EPA DRAFT CURRICULUM FOR TRAINING BUILDING INSPECTORS.

Condition of Material

Surfacing Material and Miscellaneous Material:

Poor condition -
Surface damage over at least 10% of its area if evenly distributed or more than 25% if localized.

Fair condition -
Surface damage over less than 10% of its surface or less than 25% if localized.

Good condition -
No damage or deterioration or very little damage.

Thermal Insulation:

Poor condition -
Mostly missing jackets or damage over more than 10% if evenly distributed or over 25% if localized.

Fair condition -
A few water stains or missing jackets or damage over less than 10% if evenly distributed or less than 25% if localized.

Good condition -
No visible damage or deterioration.

Potential for Disturbance

The Potential for Disturbance was developed utilizing the following classification criteria:

Potential for Contact:

High -
Service workers in the area more than once per week or if material is in a public area.

Moderate -
Service workers in the area from once a week to once a month, or if the material is in a room or office and is accessible.

Low -
Service workers in the area less than once a month, or the material is visible but not within reach.

Influence of Vibration:

High - Loud motors or engines, or easily sensed vibrations.

Moderate - Motors present but not loud, or occasional loud noises.

Low - None of the above.

Potential for Air Erosion:

High - High velocity air.

Moderate - Noticeable movement of air.

Low - None of the above.

Using the above criteria, the level of Potential Disturbance is determined as follows:

If one or more of the conditions above is in the high category, then the Potential for Disturbance is categorized as **high**.

If none is high and one or more is moderate, then the Potential for Disturbance is categorized as **moderate**.

Only if all three conditions are low, the Potential for Disturbance is categorized as **low**.

EXPLANATION OF ACM ASSESSMENT DATA TABLE

This Appendix contains a summary of all ACM assessment information for materials that tested positive in each functional space in the building. The information is grouped in columns as follows:

FLOOR

The floor of the building

FUNCTIONAL SPACE

This is a number assigned to spaces within the building. Generally, each distinct room in the building was assigned a number. The locations of these functional space numbers are charted on diagrams in Appendix IV.

LOCATION

This is the room number or description of the area if it had no room number.

INCIDENT

This is the general type of material observed.

TYPE

The AHERA classification of the material type:

- TSI - Thermal System Insulation
- SURF - Surfacing Material
- MISC - Miscellaneous Material

DESCRIPTION

The description of the material.

QUANTITY

This is either the estimated length of the material in feet or its area in square feet. For fittings/elbows, the number represents the estimated number of fittings and elbows in the system.

HOMOGENEOUS MATERIAL

A homogeneous area of building material represents a grouping of identical materials. For instance, all identical ceiling tiles were grouped into a homogeneous area. Homogeneous area is a standard EPA AHERA term. For ease of understanding, this report will use the term "homogeneous material" rather than homogeneous area. Each homogeneous material was assigned a number, and the samples taken of that homogeneous material bear that number. Samples taken within the homogeneous material are designated "A, B, or C," etc. Thus, sample 17A is a sample taken of homogeneous material 17, and is one of a series of "A, B, C," etc. Some of the functional spaces may contain materials labeled ASSUMED; this indicates that the material was assumed to contain asbestos in a percent greater than 1%. These decisions were based on sampling results of similar or inaccessible materials.

HEIGHT

The approximate height of the observed material from the floor

CONDITION

The condition of the material:
G - good, F - fair, or P - poor

DISTURBANCE POTENTIAL

The potential for disturbance for the material: L - low, M - moderate, or H - high.

AHERA CATEGORY

The standard AHERA category for the material:

Note: *ACBM* = Asbestos-containing building material. *NF* = non friable

- 1 - Damaged or significantly damaged TSI ACBM
- 2 - Damaged friable Surfacing ACBM
- 3 - Significantly damaged friable Surfacing ACBM
- 4 - Damaged or significantly damaged friable Miscellaneous ACBM
- 5 - ACBM with potential for damage
- 6 - ACBM with potential for significant damage
- 7 - Any remaining friable ACBM or friable suspect ACBM

ANNANDALE MIDDLE SCHOOL - 1922 BUILDING

AHERA 3 YEAR REINSPECTION REPORT RESULTS

11/16/2012

POTENTIAL³
FOR
DAMAGE

AHERA
CATEGORY

ACBM²
CONDITION

FRIABLE

QUANTITY

ACBM¹
CONFIRMED

HOMOGENOUS MATERIAL

LOCATION

FLOOR

FLOOR	LOCATION	HOMOGENOUS MATERIAL	ACBM ¹ CONFIRMED	QUANTITY	FRIABLE	ACBM ² CONDITION	POTENTIAL ³ FOR DAMAGE	AHERA CATEGORY
1	ROOM 101/102	MASTIC CEILING TILE MASTIC PUCKS (NOT SEEN)	NO	1430 SF	NO	ND	LPD	7
1	ROOM 103/104	MASTIC FLOOR TILE MASTIC	NO	700 SF	NO	ND	LPD	7
1	ROOM 103/104	MASTIC CEILING TILE MASTIC PUCKS (NOT SEEN)	NO	1430 SF	NO	ND	LPD	7
1	ROOM 105/106	MASTIC CEILING TILE MASTIC PUCKS (NOT SEEN)	NO	1430 SF	NO	ND	LPD	7
1	ROOM 114	MASTIC CEILING TILE MASTIC PUCKS (NOT SEEN)	NO	1400 SF	NO	ND	LPD	7
1	ROOM 108	ADHESIVE WOOD AND METAL CHALKBOARD ADHESIVE	NO	300 SF	NO	ND	LPD	7
1	1922 BLDG GYM C	PIPE INSULATION AIRCELL PIPE INSULATION (INACCESSIBLE)	NO	160 LF	YES	ND	LPD	7
1	1922 BLDG GYM C	ADHESIVE RED STAIRTREAD ADHESIVE	NO	80 SF	NO	ND	LPD	7
1	1922 BLDG GYM "C" SE STORAGE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	30 LF	YES	ND	LPD	7
1	1922 BLDG GYM "C" SOUTH CHASE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	110 LF	YES	ND	LPD	7
1	1922 BLDG GYM "C" SW STORAGE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	60 LF	YES	ND	LPD	7
1	1922 BLDG GYM "C" NW STORAGE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	30 LF	YES	ND	LPD	7
1	1922 BLDG GYM "C" N CHASE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	60 LF	YES	ND	LPD	7
1	1922 BLDG GYM "C" NE STORAGE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	15 LF	YES	ND	LPD	7

PAGE 1

CF = CUBIC FEET
 LF = LINEAR FEET
 SF = SQUARE FEET

1- A RESPONSE OF "NO" INDICATES THE MATERIAL HAS BEEN ASSUMED ACBM, A RESPONSE OF "NSA" INDICATES A NEW MATERIAL WHICH REQUIRES A ARCHITECT SIGN-OFF TO TREAT AS NON-ASBESTOS. MUST BE TREATED AS ASBESTOS-CONTAINING IN ABSENCE OF THIS SIGN-OFF.
 2- FOR ACBM CONDITION: ND=NO DAMAGE D=DAMAGE SD=SIGNIFICANT DAMAGE
 3- FOR POTENTIAL FOR DAMAGE: LPD=LOW POTENTIAL FOR DAMAGE PD=POTENTIAL FOR SIGNIFICANT DAMAGE PSD=POTENTIAL FOR SIGNIFICANT DAMAGE

ANNANDALE MIDDLE SCHOOL - 1922 BUILDING

AHERA 3 YEAR REINSPECTION REPORT RESULTS

11/16/2012

FLOOR	LOCATION	HOMOGENOUS MATERIAL	ACBM ¹ CONFIRMED	QUANTITY	FRIABLE	ACBM ² CONDITION	POTENTIAL ³ FOR DAMAGE	AHERA CATEGORY
1	1922 BLDG HALLWAY	FLOOR TILE 9"X 9" TAN WITH DARK BROWN FLECKS	YES	2200 SF	NO	ND	LPD	NF
1	1922 BLDG HALLWAY	MASTIC FLOOR TILE MASTIC	YES	2200 SF	NO	ND	LPD	7
1	1922 BLDG HALLWAY	FIREDOOR FIREDOORS	YES	10 DR	NO	ND	LPD	7
1	1922 BLDG	ELECTRIC PANELS ELECTRIC PANELS	YES	2 CT	0	ND	LPD	7
1	1922 BLDG STAFF LOUNGE	FLOOR TILE 9"X 9" TAN WITH DARK BROWN FLECKS	YES	320 SF	NO	ND	LPD	NF
1	1922 BLDG STAFF LOUNGE	MASTIC FLOOR TILE MASTIC	YES	320 SF	NO	ND	LPD	7
1	1922 BLDG STAFF LOUNGE & RESTROOMS	CEILING TILE 2' X 4' WHITE WITH LENGTHWISE FISSURES, DENTS	YES	230 SF	YES	D	LPD	4
1	1922 BLDG STAFF LOUNGE	ADHESIVE WALL PANEL ADHESIVE	NO	800 SF	NO	ND	LPD	7
1	1922 BLDG STAFF LOUNGE	ADHESIVE WOOD TACKBOARD ADHESIVE	NO	100 SF	NO	ND	LPD	7
1	1922 BLDG STAFF LOUNGE	MORTAR AND GROUT 1" WHITE HEXAGON CERAMIC FLOOR TILE	NO	200 SF	NO	ND	LPD	7
1	1922 BLDG STAFF LOUNGE	MASTIC CEILING TILE MASTIC PUCKS (NOT SEEN)	NO	800 SF	NO	ND	LPD	7
1	OFFICE ACROSS FROM 1922 STAFF LOUNGE	CEILING TILE 2' X 4' WHITE WITH LENGTHWISE FISSURES, DENTS	YES	400 SF	YES	D	LPD	4
1	1922 BLDG SOUTH STAIR STORAGE	PIPE INSULATION AIRCELL PIPE INSULATION	NO	55 LF	YES	D	PD	1
2	1922 BLDG HALLWAY	MASTIC FLOOR TILE MASTIC	YES	2200 SF	NO	ND	LPD	7

CF = CUBIC FEET
 LF = LINEAR FEET
 SF = SQUARE FEET

1- A RESPONSE OF "NO" INDICATES THE MATERIAL HAS BEEN ASSUMED ACBM, A RESPONSE OF "NSA" INDICATES A NEW MATERIAL WHICH REQUIRES A ARCHITECT SIGN-OFF TO TREAT AS NON-ASBESTOS. MUST BE TREATED AS ASBESTOS-CONTAINING IN ABSENCE OF THIS SIGN-OFF.
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ANNANDALE MIDDLE SCHOOL - 1922 BUILDING

AHERA 3 YEAR REINSPECTION REPORT RESULTS

POTENTIAL³
FOR
DAMAGE

AHERA
CATEGORY

ACBM²
CONDITION

FRIABLE

QUANTITY

ACBM¹
CONFIRMED

HOMOGENOUS MATERIAL

LOCATION

FLOOR

ND LPD

ND

NO

2200 SF

YES

FLOOR TILE
9'X 9"
TAN WITH DARK BROWN FLECKS

1922 BLDG
HALLWAY

2

ND LPD

ND

NO

6 DR

YES

FIREDOOR
FIREDOORS

1922 BLDG
HALLWAY

2

ND LPD

ND

0

16 CT

YES

ELECTRIC PANELS
ELECTRIC PANELS

1922 BLDG

1

ND LPD

ND

YES

2100 SF

YES

CEILING TILE
2' X 4'
CEILING TILE, WHITE WITH LENGTHWISE

ROOM 203/204

2

ND LPD

ND

NO

3500 SF

YES

ADHESIVE
WALL PANEL ADHESIVE, BLACK

ROOM 203/204

2

ND LPD

ND

YES

264 SF

YES

CEILING TILE
2' X 4'
CEILING TILE, WHITE WITH LENGTHWISE

ROOM 207

2

ND LPD

ND

YES

264 SF

YES

CEILING TILE
2' X 4'
CEILING TILE, WHITE WITH LENGTHWISE

ROOM 216

2

PD

D

YES

260 SF

YES

CEILING TILE
2' X 4'
CEILING TILE, WHITE WITH LENGTHWISE

2ND MENS
BATHROOMS

2

ND LPD

ND

YES

260 SF

YES

CEILING TILE
2' X 4'
CEILING TILE, WHITE WITH LENGTHWISE

2ND WOMENS
BATHROOMS

2

PD

D

YES

100 LF

NO

PIPE INSULATION
AIRCELL PIPE INSULATION

1922 FAN
ROOM BY
RESTROOM

2

PD

D

YES

18 FITT

NO

FITTINGS
HARD WHITE ON AIRCELL PIPE INSULATION

1922 FAN
ROOM BY
RESTROOM

2

PSD

D

NO

2000 SF

NO

FLOOR TILE
9'X 9"
BRN W/ DARK BRN SPECKS (UNDER CARPET)

3RD FLOOR
HALLWAY

3

LPD

ND

NO

2000 SF

NO

MASTIC
FLOOR TILE MASTIC

3RD FLOOR
HALLWAY

3

LPD

ND

NO

6 DR

YES

FIREDOOR
FIREDOORS

1922 BLDG
HALLWAY

3

PAGE 3
CF = CUBIC FEET
LF = LINEAR FEET
SF = SQUARE FEET
1- A RESPONSE OF "NO" INDICATES THE MATERIAL HAS BEEN ASSUMED ACBM A RESPONSE OF "NSA" INDICATES A NEW MATERIAL WHICH REQUIRES A ARCHITECT SIGN-OFF TO TREAT AS NON-ASBESTOS. MUST BE TREATED AS ASBESTOS-CONTAINING IN ABSENCE OF THIS SIGN-OFF.
2- FOR ACBM CONDITION: ND=NO DAMAGE D=DAMAGE SD=SIGNIFICANT DAMAGE
3- FOR POTENTIAL FOR DAMAGE: LPD=LOW POTENTIAL FOR DAMAGE PD=POTENTIAL FOR DAMAGE PSD=POTENTIAL FOR SIGNIFICANT DAMAGE

ANNANDALE MIDDLE SCHOOL - 1922 BUILDING

AHERA 3 YEAR REINSPECTION REPORT RESULTS

11/16/2012

POTENTIAL³
FOR
DAMAGE

AHERA
CATEGORY

ACBM²
CONDITION

FRIABLE

QUANTITY

ACBM¹
CONFIRMED

HOMOGENOUS MATERIAL

FLOOR LOCATION

7

ND

0

7 CT

YES

ELECTRIC PANELS
ELECTRIC PANELS

1922 BLDG

1

7

ND

YES

200 LF

NO

PIPE INSULATION
AIRCELL PIPE INSULATION (NO ACCESS)

1922 ATTIC

3

7

ND

YES

12 FITT

YES

FITTINGS
HARD WHITE FITTINGS ON AIRCELL PIPE

1922 ATTIC

3

7

ND

NO

1250 SF

YES

MASTIC
FLOOR TILE MASTIC UNDER CARPET

RM 306

3

7

ND

NO

150 SF

YES

MASTIC
FLOOR TILE MASTIC

ROOM
BETWEEN 306
& 308

3

7

ND

NO

1200 SF

YES

MASTIC
FLOOR TILE MASTIC UNDER CARPET

RM 308

3

7

ND

YES

60 SF

YES

CEILING TILE 2 X 4
WHITE WITH LENGTHWISE FISSURES, DENTS

1922 NORTH
ENTRY

1

7

ND

YES

60 SF

YES

CEILING TILE 2 X 4
WHITE WITH LENGTHWISE FISSURES, DENTS

1922 SOUTH
ENTRY

1

7

ND

NO

60 SF

NO

MORTAR AND GROUT
BRICK CERAMIC FLOOR TILE MORTAR AND

1922 NORTH
ENTRY

1

7

ND

NO

60 SF

NO

MORTAR AND GROUT
BRICK CERAMIC FLOOR TILE MORTAR AND

1922 SOUTH
ENTRY

1

NF

ND

NO

70 SF

YES

FLOOR TILE 9" X 9"
FLOOR TILE UNDER CARPET

SOUTH
STAIRWELL

3

7

ND

NO

70 SF

YES

MASTIC
FLOOR TILE MASTIC

SOUTH
STAIRWELL

3

NF

ND

NO

70 SF

YES

FLOOR TILE 9" X 9"
FLOOR TILE UNDER CARPET

NORTH
STAIRWELL

3

7

ND

NO

70 SF

YES

MASTIC
FLOOR TILE MASTIC

NORTH
STAIRWELL

3

NF

ND

NO

70 SF

YES

FLOOR TILE 9" X 9"
FLOOR TILE UNDER CARPET

SOUTH
STAIRWELL

2

PAGE 4

CF = CUBIC FEET
LF = LINEAR FEET
SF = SQUARE FEET

1. A RESPONSE OF "NO" INDICATES THE MATERIAL HAS BEEN ASSUMED ACBM. A RESPONSE OF "NSA" INDICATES A NEW MATERIAL WHICH REQUIRES A ARCHITECT SIGN-OFF TO TREAT AS NON-ASBESTOS. MUST BE TREATED AS ASBESTOS-CONTAINING IN ABSENCE OF THIS SIGN-OFF.
2. FOR ACBM CONDITION: ND=NO DAMAGE D=DAMAGE SD=SIGNIFICANT DAMAGE
3. FOR POTENTIAL FOR DAMAGE: LPD=LOW POTENTIAL FOR DAMAGE PD=POTENTIAL FOR SIGNIFICANT DAMAGE

ANNANDALE MIDDLE SCHOOL - 1922 BUILDING

AHERA 3 YEAR REINSPECTION REPORT RESULTS

11/16/2012

POTENTIAL³
FOR
DAMAGE

AHERA
CATEGORY

ACBM²
CONDITION

FRIABLE

QUANTITY

ACBM¹
CONFIRMED

HOMOGENOUS MATERIAL

LOCATION

FLOOR

FLOOR	LOCATION	HOMOGENOUS MATERIAL	ACBM ¹ CONFIRMED	QUANTITY	FRIABLE	ACBM ² CONDITION	POTENTIAL ³ FOR DAMAGE	AHERA CATEGORY
2	SOUTH STAIRWELL	MASTIC FLOOR TILE MASTIC	YES	70 SF	NO	ND	LPD	7
2	NORTH STAIRWELL	FLOOR TILE 9" X 9" FLOOR TILE UNDER CARPET	YES	70 SF	NO	ND	LPD	NF
2	NORTH STAIRWELL	MASTIC FLOOR TILE MASTIC	YES	70 SF	NO	ND	LPD	7
1-2	NORTH STAIRWELL LANDING	FLOOR TILE RED VINYL FLOORING UNDER CARPET	YES	70 SF	NO	ND	LPD	NF
2-3	NORTH STAIRWELL LANDING	FLOOR TILE RED VINYL FLOORING UNDER CARPET	YES	100 SF	NO	ND	LPD	NF
1	EXTERIOR	WINDOW GLAZING GRAY GUMMY WINDOW GLAZING	YES	140 WIND	YES	ND	LPD	7
1	EXTERIOR	CAULK TAN WINDOW CAULK	YES	5000 LF	YES	ND	LPD	7
ROOF	EXTERIOR	ROOFING MATERIALS ROOFING MATERIALS	YES	3000 SF	0	ND	LPD	7

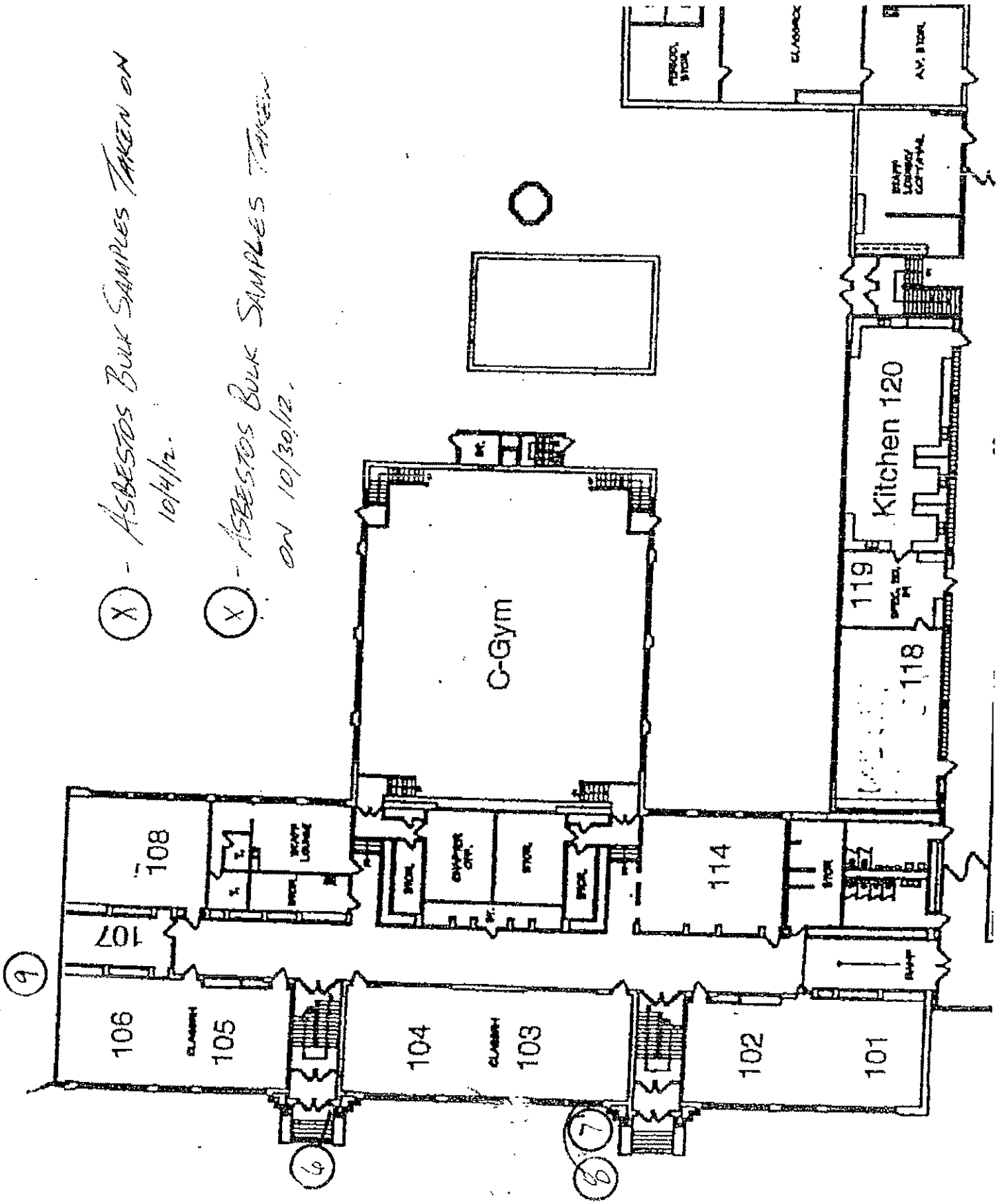
PAGE 5
CF = CUBIC FEET
LF = LINEAR FEET
SF = SQUARE FEET

1- A RESPONSE OF "NO" INDICATES THE MATERIAL HAS BEEN ASSUMED ACBM. A RESPONSE OF "NSA" INDICATES A NEW MATERIAL WHICH REQUIRES AN ARCHITECT SIGN-OFF TO TREAT AS NON-ASBESTOS. MUST BE TREATED AS ASBESTOS-CONTAINING IN ABSENCE OF THIS SIGN-OFF.
2- FOR ACBM CONDITION: ND=NO DAMAGE D=DAMAGE SD=SIGNIFICANT DAMAGE
3- FOR POTENTIAL FOR DAMAGE: LPD=LOW POTENTIAL FOR DAMAGE PD=POTENTIAL FOR DAMAGE PSD=POTENTIAL FOR SIGNIFICANT DAMAGE

APPENDIX IV

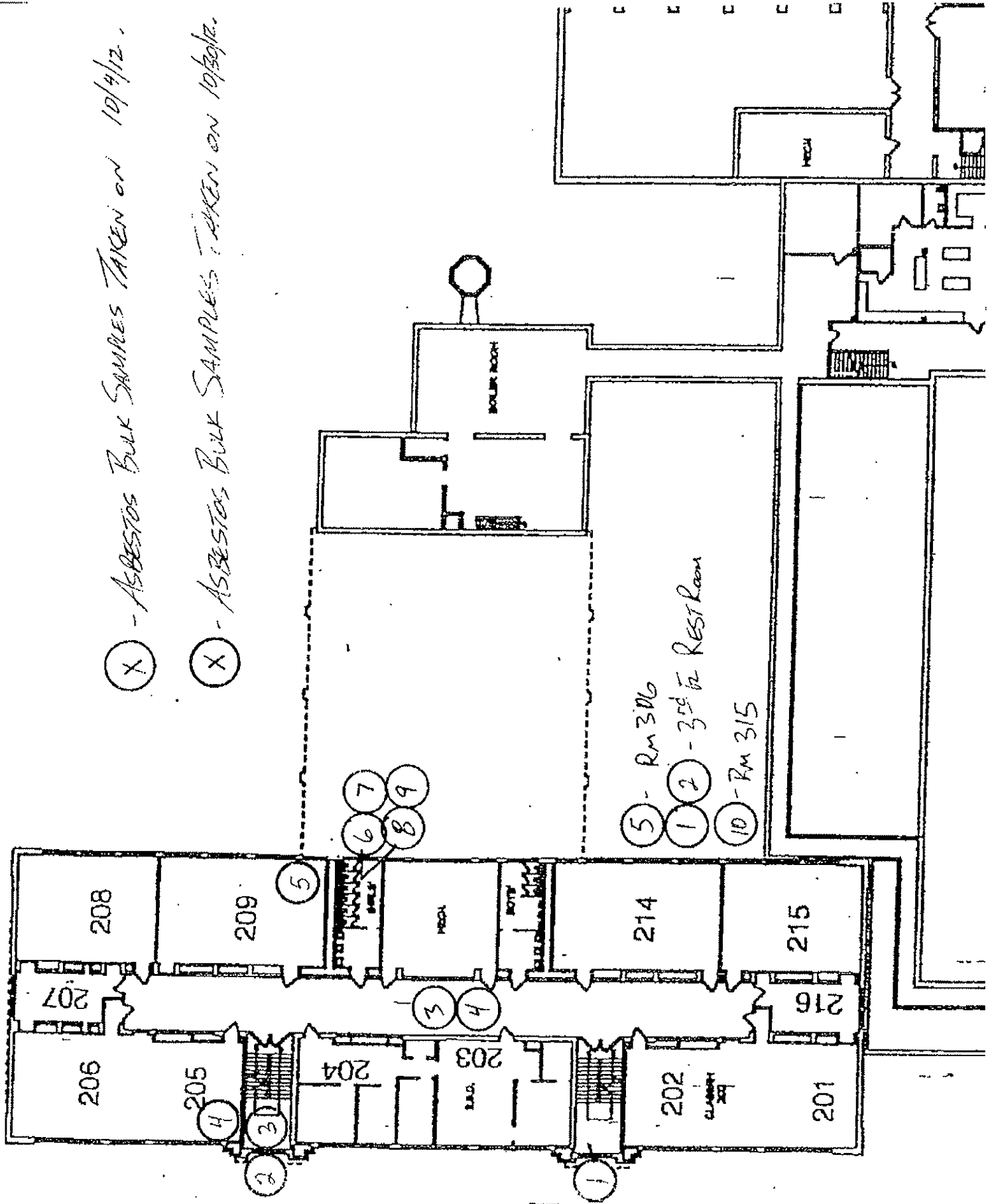
(X) - ASBESTOS BULK SAMPLES TAKEN ON 10/4/12.

(X) - ASBESTOS BULK SAMPLES TAKEN ON 10/30/12.



(X) - Asbestos Bulk Samples Taken on 10/4/12.

(X) - Asbestos Bulk Samples Taken on 10/30/12.



APPENDIX V



MDH ASBESTOS
INSPECTOR

Certified by:
State of Minnesota
Department of Health

Expires: 08/17/2013

Mark W Meier
7570 Dallas Ln N
Maple Grove, MN 55311

Linda A. Buechner
Director, Env. Health Div.

No A-3893

Issued: 08/27/2012

APPENDIX VI

**ANMANDALE PUBLIC SCHOOLS
ANANDALE MIDDLE SCHOOL - 1922 BUILDING
REMOVAL COST ESTIMATES**

11/16/2012

FLOOR	FUNCTIONAL SPACE	LOCATION	INCIDENT	TYPE	DESCRIPTION	QUANTITY	CONDITION	DISTURBANCE POTENTIAL	REMOVAL COST	HOMOG. MATERIAL
1	93	ROOM 101/102	MASTIC	MISC	CEILING TILE MASTIC PUCKS (NOT SEEN)	1430 SF	G	L	\$2860	ASSUMED
1	94	ROOM 103/104	MASTIC	MISC	FLOOR TILE MASTIC	700 SF	G	L	\$1400	ASSUMED
1	94	ROOM 103/104	MASTIC	MISC	CEILING TILE MASTIC PUCKS (NOT SEEN)	1430 SF	G	L	\$2860	ASSUMED
1	95	ROOM 105/106	MASTIC	MISC	CEILING TILE MASTIC PUCKS (NOT SEEN)	1430 SF	G	L	\$2860	ASSUMED
1	95	ROOM 114	MASTIC	MISC	CEILING TILE MASTIC PUCKS (NOT SEEN)	1400 SF	G	L	\$2800	ASSUMED
1	95	ROOM 108	ADHESIVE	MISC	WOOD AND METAL CHALKBOARD ADHESIVE	300 SF	G	L	\$2400	ASSUMED
1	96	1922 BLDG GYM C	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION (INACCESSIBLE)	160 LF	G	L	\$2400	ASSUMED
1	96	1922 BLDG GYM C	ADHESIVE	MISC	RED STAIRTREAD ADHESIVE	80 SF	G	L	\$160	ASSUMED
1	97	1922 BLDG GYM "C" SE STORAGE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	30 LF	G	L	\$450	ASSUMED
1	98	1922 BLDG GYM "C" SOUTH CHASE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	110 LF	G	L	\$1650	ASSUMED
1	99	1922 BLDG GYM "C" SW STORAGE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	60 LF	G	L	\$900	ASSUMED

PAGE 1
 CF = CUBIC FEET
 LF = LINEAR FEET
 SF = SQUARE FEET
 POTENTIAL FOR DISTURBANCE CODE: L=LOW M=MODERATE H=HIGH
 TYPE CODE: TSI=THERMAL SYSTEM INSULATION SURF=SURFACING MATERIALS MISC=MISCELLANEOUS
 CONDITION CODE: G=GOOD F=FAIR P=POOR

ANNANDALE PUBLIC SCHOOLS
ANNANDALE MIDDLE SCHOOL - 1922 BUILDING
REMOVAL COST ESTIMATES

11/16/2012

FLOOR	FUNCTIONAL SPACE	LOCATION	INCIDENT	TYPE	DESCRIPTION	QUANTITY	CONDITION	DISTURBANCE POTENTIAL	REMOVAL COST	HOMOG. MATERIAL
1	100	1922 BLDG GYM "C" NW STORAGE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	30LF	G	L	\$450	ASSUMED
1	101	1922 BLDG GYM "C" N CHASE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	60LF	G	L	\$900	ASSUMED
1	101	1922 BLDG GYM "C" NE STORAGE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	15LF	G	L	\$225	ASSUMED
1	102	1922 BLDG HALLWAY	FLOOR TILE	MISC	9"x 9" TAN WITH DARK BROWN FLECKS	2200SF	G	L	\$4400	F12-539-3
1	102	1922 BLDG HALLWAY	MASTIC	MISC	FLOOR TILE MASTIC	2200SF	G	L	\$4400	F12-539-4
1	102	1922 BLDG HALLWAY	FIREDOOR	MISC	FIREDOORS	10DR	G	L	\$2000	12-624-9
1	102	1922 BLDG	ELECTRIC PANELS	MISC	ELECTRIC PANELS	2CT	G	L	\$400	12-624-9
1	103	1922 BLDG STAFF LOUNGE	FLOOR TILE	MISC	9"x 9" TAN WITH DARK BROWN FLECKS	320SF	G	L	\$640	F12-539-3
1	103	1922 BLDG STAFF LOUNGE	MASTIC	MISC	FLOOR TILE MASTIC	320SF	G	L	\$640	F12-539-4
1	103	1922 BLDG STAFF LOUNGE & RESTROOMS	CEILING TILE	MISC	2' x 4' WHITE WITH LENGTHWISE FISSURES, DENTS AND HOLES	230SF	F	L	\$1150	F10-288-1A
1	103	1922 BLDG STAFF LOUNGE	ADHESIVE	MISC	WALL PANEL ADHESIVE	800SF	G	L	\$2400	ASSUMED
1	103	1922 BLDG STAFF LOUNGE	ADHESIVE	MISC	WOOD TACKBOARD ADHESIVE	100SF	G	L	\$800	ASSUMED

PAGE 2
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CONDITION CODE: G=GOOD F=FAIR P=POOR

ANNANDALE PUBLIC SCHOOLS
ANNANDALE MIDDLE SCHOOL - 1922 BUILDING
REMOVAL COST ESTIMATES

11/16/2012

FLOOR	FUNCTIONAL SPACE	LOCATION	INCIDENT	TYPE	DESCRIPTION	QUANTITY	CONDITION	DISTURBANCE POTENTIAL	REMOVAL COST	HOMOG. MATERIAL
1	103	1922 BLDG STAFF LOUNGE	MORTAR AND GROUT	MISC	1" WHITE HEXAGON CERAMIC FLOOR TILE MORTAR & GROUT	200SF	G	L	\$600	ASSUMED
1	103	1922 BLDG STAFF LOUNGE	MASTIC	MISC	CEILING TILE MASTIC PUCKS (NOT SEEN)	.800SF	G	L	\$1600	ASSUMED
1	104	OFFICE ACROSS FROM 1922 STAFF LOUNGE	CEILING TILE	MISC	2' x 4' WHITE WITH LENGTHWISE FISSURES, DENTS AND HOLES	400SF	F	L	\$2000	F10-288-1A
1	105	1922 BLDG SOUTH STAIR STORAGE	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION (NO ACCESS)	55LF	F	M	\$825	ASSUMED
2	106	1922 BLDG HALLWAY	MASTIC	MISC	FLOOR TILE MASTIC	2200SF	G	L	\$4400	F12-539-4
2	106	1922 BLDG HALLWAY	FLOOR TILE	MISC	9" x 9" TAN WITH DARK BROWN FLECKS	2200SF	G	L	\$4400	F12-539-3
2	106	1922 BLDG HALLWAY	FIREDOOR	MISC	FIREDOORS	6DR	G	L	\$1200	12-624-9
1	106	1922 BLDG	ELECTRIC PANELS	MISC	ELECTRIC PANELS	16CT	G	L	\$3200	12-624-9
2	107	ROOM 203/204	CEILING TILE	MISC	2' x 4' CEILING TILE, WHITE WITH LENGTHWISE FISSURES, DENTS	2100SF	G	L	\$10500	F10-288-1A
2	107	ROOM 203/204	ADHESIVE	MISC	WALL PANEL ADHESIVE, BLACK	3500SF	G	L	\$10500	F10-288-3A
2	108	ROOM 207	CEILING TILE	MISC	2' x 4' CEILING TILE, WHITE WITH LENGTHWISE FISSURES, DENTS	264SF	G	L	\$1320	F10-288-1A

PAGE 3

CF = CUBIC FEET
LF = LINEAR FEET
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POTENTIAL FOR DISTURBANCE CODE: L=LOW M=MODERATE H=HIGH
TYPE CODE: TSI=THERMAL SYSTEM INSULATION SURF=SURFACING MATERIALS MISC=MISCELLANEOUS
CONDITION CODE: G=GOOD F=FAIR P=POOR

ANNANDALE PUBLIC SCHOOLS
ANNANDALE MIDDLE SCHOOL - 1922 BUILDING
REMOVAL COST ESTIMATES

11/16/2012

FLOOR	FUNCTIONAL SPACE	LOCATION	INCIDENT	TYPE	DESCRIPTION	QUANTITY	CONDITION	DISTURBANCE POTENTIAL	REMOVAL COST	HOMOG. MATERIAL
2	108	ROOM 216	CEILING TILE	MISC	2' x 4' CEILING TILE, WHITE WITH LENGTHWISE FISSURES, DENTS	264 SF	G	L	\$1320	F10-288-1A
2	108	2ND MENS BATHROOMS	CEILING TILE	MISC	2' x 4' CEILING TILE, WHITE WITH LENGTHWISE FISSURES, DENTS	260 SF	F	M	\$1300	F10-288-1A
2	108	2ND WOMENS BATHROOMS	CEILING TILE	MISC	2' x 4' CEILING TILE, WHITE WITH LENGTHWISE FISSURES, DENTS	260 SF	G	L	\$1300	F10-288-1A
2	111	1922 FAN ROOM BY RESTROOM	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION	100 LF	F	M	\$1500	ASSUMED
2	112	1922 FAN ROOM BY RESTROOM	FITTINGS	TSI	HARD WHITE ON AIRCELL PIPE INSULATION	18 FITT	F	M	\$450	ASSUMED
3	116	3RD FLOOR HALLWAY	FLOOR TILE	MISC	9"x 9" BRN W/ DARK BRN SPECKS (UNDER CARPET)	2000 SF	F	H	\$4000	ASSUMED
3	116	3RD FLOOR HALLWAY	MASTIC	MISC	FLOOR TILE MASTIC	2000 SF	G	L	\$4000	ASSUMED
3	116	1922 BLDG HALLWAY	FIREDOOR	MISC	FIREDOORS	6 DR	G	L	\$1200	12-624-9
1	116	1922 BLDG	ELECTRIC PANELS	MISC	ELECTRIC PANELS	7 CT	G	L	\$1400	12-624-9
3	120	1922 ATTIC	PIPE INSULATION	TSI	AIRCELL PIPE INSULATION (NO ACCESS)	200 LF	G	L	\$3000	ASSUMED

PAGE 4
CF = CUBIC FEET
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POTENTIAL FOR DISTURBANCE CODE: L=LOW M=MODERATE H=HIGH
TYPE CODE: TSI=THERMAL SYSTEM INSULATION SURF=SURFACING MATERIALS MISC=MISCELLANEOUS
CONDITION CODE: G=GOOD F=FAIR P=POOR

**ANNANDALE PUBLIC SCHOOLS
ANNANDALE MIDDLE SCHOOL - 1922 BUILDING
REMOVAL COST ESTIMATES**

11/16/2012

FLOOR	FUNCTIONAL SPACE	LOCATION	INCIDENT	TYPE	DESCRIPTION	QUANTITY	CONDITION	DISTURBANCE POTENTIAL	REMOVAL COST	HOMOGENEOUS MATERIAL
3	121	1922 ATTIC	FITTINGS	TSI	HARD WHITE FITTINGS ON AIRCELL PIPE INSULATION (NO	12 FITT	G	L	\$300	YES
3	126	RM 306	MASTIC	MISC	FLOOR TILE MASTIC UNDER CARPET	1250 SF	G	L	\$2500	YES
3	127	ROOM BETWEEN 306 & 308	MASTIC	MISC	FLOOR TILE MASTIC	150 SF	G	L	\$300	YES
3	128	RM 308	MASTIC	MISC	FLOOR TILE MASTIC UNDER CARPET	1200 SF	G	L	\$2400	YES
1	129	1922 NORTH ENTRY	CEILING TILE	MISC	2 x 4 WHITE WITH LENGTHWISE FISSURES, DENTS AND HOLES	60 SF	G	L	\$300	F07-175-7A
1	129	1922 SOUTH ENTRY	CEILING TILE	MISC	2 x 4 WHITE WITH LENGTHWISE FISSURES, DENTS AND HOLES	60 SF	G	L	\$300	F07-175-7A
1	129	1922 NORTH ENTRY	MORTAR AND GROUT	MISC	BRICK CERAMIC FLOOR TILE MORTAR AND GROUT	60 SF	G	L	\$180	ASSUMED
1	129	1922 SOUTH ENTRY	MORTAR AND GROUT	MISC	BRICK CERAMIC FLOOR TILE MORTAR AND GROUT	60 SF	G	L	\$180	ASSUMED
3	130	SOUTH STAIRWELL	FLOOR TILE	MISC	9" x 9" FLOOR TILE UNDER CARPET	70 SF	G	L	\$140	12-539AMS
3	130	SOUTH STAIRWELL	MASTIC	MISC	FLOOR TILE MASTIC	70 SF	G	L	\$140	12-539AMS

PAGE 5
CF = CUBIC FEET
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CONDITION CODE: G=GOOD F=FAIR P=POOR

ANNANDALE PUBLIC SCHOOLS
ANNANDALE MIDDLE SCHOOL - 1922 BUILDING
REMOVAL COST ESTIMATES

11/16/2012

FLOOR	FUNCTIONAL SPACE	LOCATION	INCIDENT	TYPE	DESCRIPTION	QUANTITY	CONDITION	DISTURBANCE POTENTIAL	REMOVAL COST	HOMOG. MATERIAL
3	131	NORTH STAIRWELL	FLOOR TILE	MISC	9" x 9" FLOOR TILE UNDER CARPET	70SF	G	L	\$140	12-539AMS
3	131	NORTH STAIRWELL	MASTIC	MISC	FLOOR TILE MASTIC	70SF	G	L	\$140	12-539AMS
2	132	SOUTH STAIRWELL	FLOOR TILE	MISC	9" x 9" FLOOR TILE UNDER CARPET	70SF	G	L	\$140	12-539AMS
2	132	SOUTH STAIRWELL	MASTIC	MISC	FLOOR TILE MASTIC	70SF	G	L	\$140	12-539AMS
2	133	NORTH STAIRWELL	FLOOR TILE	MISC	9" x 9" FLOOR TILE UNDER CARPET	70SF	G	L	\$140	12-539AMS
2	133	NORTH STAIRWELL	MASTIC	MISC	FLOOR TILE MASTIC	70SF	G	L	\$140	12-539AMS
1-2	134	NORTH STAIRWELL LANDING	FLOOR TILE	MISC	RED VINYL FLOORING UNDER CARPET	70SF	G	L	\$140	12-627-2
2-3	135	NORTH STAIRWELL LANDING	FLOOR TILE	MISC	RED VINYL FLOORING UNDER CARPET	100SF	G	L	\$200	12-627-2
1	136	EXTERIOR	WINDOW GLAZING	MISC	GRAY GUMMY WINDOW GLAZING	140WIND	G	L	\$28000	12-627-4 &
1	136	EXTERIOR	CAULK	MISC	TAN WINDOW CAULK	5000LF	G	L	\$25000	12-624-9
ROOF	136	EXTERIOR	ROOFING MATERIALS	MISC	ROOFING MATERIALS	3000SF	G	L	\$6000	12-624-9

PAGE 6
CF = CUBIC FEET
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POTENTIAL FOR DISTURBANCE CODE: L=LOW M=MODERATE H=HIGH
TYPE CODE: TSI=THERMAL SYSTEM INSULATION SURF=SURFACING MATERIALS MISC=MISCELLANEOUS
CONDITION CODE: G=GOOD F=FAIR P=POOR

APPENDIX VII

LEAD PAINT SAMPLE RESULTS

Annandale Middle School – 1922 Construction

SAMPLE #	LOCATION	DESCRIPTION	RESULT (% by wt)
1	Room 214	Cream on Plaster Wall	0.097
2	Room 207	White on Plaster Wall	0.089
3	2 nd Floor Girls' Restroom	White on Plaster Wall	<0.010
4	2 nd Floor Mechanical Room	Gray on Metal Air Handling Unit	0.088
5	South Stairwell	Blue on Plaster Wall	0.94
6	Room 303	Yellow on Plaster Wall	0.17
7	Room 315	White on Plaster Wall	0.13
8	Room 308	Bright Yellow on Plaster Wall	0.12
9	Room 305	White on Plaster Wall	0.031

* Bold results indicated the sample exceeded MPCA guidelines of 0.5% by weight.



EMSL Analytical, Inc.

14376 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924

EMSL Order: 351207081
CustomerID: APPL66
CustomerPO:
ProjectID:

Attn: **Mark Meier**
Applied Environmental Sciences, Inc(AES)
8441 Wayzata Blvd.
Suite 103
Minneapolis, MN 55426

Phone: (763) 545-5510
Fax: (763) 545-7883
Received: 10/31/12 1:50 PM
Collected: 10/30/2012

Project: F12-627 1922 Bldg

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B*7000B)

Lab ID:	Analyzed	RDL	Lead Concentration	Notes
0001	11/6/2012	0.010 % wt	0.097 % wt	Site: Rm 214 Cream on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 1</i>				
0002	11/6/2012	0.010 % wt	0.089 % wt	Site: Rn 207 White on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 2</i>				
0003	11/6/2012	0.010 % wt	<0.010 % wt	Site: 2nd Girls' Rest Room White on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 3</i>				
0004	11/6/2012	0.010 % wt	0.088 % wt	Site: 2nd Mech Room - Gray on Metal AHU <i>Collected: 10/30/2012</i>
<i>Client Sample 4</i>				
0005	11/6/2012	0.25 % wt	0.94 % wt	Site: S. Stairwell - Blue on plaster Walls <i>Collected: 10/30/2012</i>
<i>Client Sample 5</i>				
0006	11/6/2012	0.010 % wt	0.17 % wt	Site: Rm 303. Yellow on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 6</i>				
0007	11/6/2012	0.010 % wt	0.13 % wt	Site: Rm 315 White on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 7</i>				
0008	11/6/2012	0.010 % wt	0.12 % wt	Site: Rm 308 Bright yellow on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 8</i>				
0009	11/6/2012	0.010 % wt	0.031 % wt	Site: Rm 305 Tan on plaster Wall <i>Collected: 10/30/2012</i>
<i>Client Sample 9</i>				

The Matrix Spike and Duplicate associated with these samples did not meet acceptance criteria.

Rachel Travis, Laboratory Manager
or other approved signatory

Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. * slight modifications to methods applied. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request

Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn A/HA-LAP, LLC-ELLAP Accredited #163162

Initial report from 11/06/2012 16:09:52

Test Report PB w/RDL-7.26.0 Printed: 11/6/2012 4:09:52 PM

Lead & Metals Chain of Custody

EMSL Order Number (Lab Use Only):

7081

Company: Applied Environmental Sciences, Inc.		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments</small>	
Street: 8441 Wayzata Blvd, Suite 103		Third Party Billing requires written authorization from third party	
City/State/Zip: Minneapolis, MN 55426		Report To (Name): Mark Meier	
Telephone: 763-545-5510		Fax: 763-545-7883	
Project Name/Number: <u>712-1227 1902 Bldg</u>		Email Address: m.meier@aesmn.com	
Please Provide Results: Email		Purchase Order:	
		State Samples Taken: MN	

Turnaround Time (TAT) Options* - Please Check

3 Hour |
 6 Hour |
 24 Hour |
 48 Hour |
 72 Hour |
 96 Hour |
 1 Week |
 2 Week

*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> mg/cm ² <input checked="" type="checkbox"/> % by wt.	SW846-7000B 7420 or AOAC 974.02	Flame Atomic Absorption	0.01%	<input checked="" type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/liter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/liter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES	0.5 µg/liter	<input type="checkbox"/>
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <small>*If no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B 7420	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	0.5 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311-7420 SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B 7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-7421	Graphite Furnace AA	0.3 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1 mg/kg (ppm)	<input type="checkbox"/>
Wastewater	SM3111B or SW846-7000B 7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1 mg/kg (ppm)	<input type="checkbox"/>
Drinking Water	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>

Other:	Preservation Method (Water):
Name of Sampler: <u>Mark Meier</u>	Signature of Sampler: <u>[Signature]</u>

Sample #	Location	Volume/Area	Date/Time Sampled
1	Rm 214 Cream on plaster wall		10/30/12 4 PM
2	Rm 207 white on plaster wall		
3	2nd Corb's Restroom white on plaster wall		
4	2nd Mech. Room Ceiling Metal MW		
5	5 Stairwell Blue on plaster walls		
6	Rm 303 yellow on plaster wall		

Client Sample #'s: <u>1-6</u>	Total # of Samples: <u>6</u>
Relinquished (Client): <u>[Signature]</u> Date: <u>10/31/12</u>	Time: <u>1:50 PM</u>
Received (Lab): <u>[Signature]</u> Date: <u>10/31/12</u>	Time: <u>1:50 W</u>

Comments/Special Instructions:

APPENDIX VIII

HAZARDOUS OR SPECIAL WASTE OBSERVED

Annandale Middle School – 1922 Construction

CFC's	Estimated Quantity
Air Conditioners (rooftop)	unknown
Air Conditioner (window)	1
Fire Extinguishers	11

PCB's	Estimated Quantity
Ballasts/fixtures	256

Mercury	Estimated Quantity
Fluorescent Bulbs	1,022
HID Lamps	8
Thermostats	5
Thermostats with Thermometer	28

Lead	Estimated Quantity
Lead Paint Peeling	See Appendix VII

Misc.	Estimated Quantity
Air Handler Unit and Controls	1
Door Closures	18
Electric Panels	25
Emergency Light Systems	10
Exit Signs	30
Fire Detection System	1
Paint (Qt.)	1
Smoke Detector System	1
Space Heaters	3
Speakers	30
Sprinkler System	1

* Only building components are included in this inspection. Aerosol spray cans, cleaning supplies, etc. were not included in this list of hazardous materials/special waste.

