HAZARDOUS MATERIALS SURVEY
COMMERCIAL BUILDING
1 NORTH BROADWAY
SALEM, NEW HAMPSHIRE

January 2020

Project 19039

GREEN
ENVIRONMENTAL

HAZARDOUS MATERIALS SURVEY

Commercial Property
1 North Broadway
Salem, New Hampshire

January 9, 2019

Project 19039

Prepared for:

Vanasse Hangen Brustlin
101 Walnut Street
Watertown, MA 02472
ATTN: Katherine Kudzma

Prepared by:

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1.0 INTRODUCTION

Green Environmental, Inc. (GREEN) was retained by Vanasse Hangen Brustlin (VHB) to conduct a hazardous materials survey of the commercial building located at 1 North Broadway in Salem, New Hampshire. GREEN understands the surrounding area is scheduled to be redeveloped and that the existing structure will be demolished. GREEN completed this Hazardous Materials Survey to support the planned redevelopment.

1.1 Building Description

According to the Town of Salem Assessor field card and GREEN's site inspection, the building located at 1 North Broadway is an approximately 4,950 square-foot, multi-tenant, commercial building constructed in 1965.

The building has a concrete slab foundation, with a concrete block and brick frame construction and a flat rubber roof. Representative site photographs for the building are included in **Appendix A**. A site plan is provided for reference included as **Figure 1**.

1.2 Scope of Work

GREEN was retained to conduct a Hazardous Materials Survey to document the presence of oil or hazardous materials at the subject building that may require abatement and/or special handling and disposal prior to building demolition. The Survey included assessment for the presence of asbestos and lead-based paint, and the cataloging of oils and/or hazardous materials located within the building. Bulk samples of suspect building materials were collected using destructive measures, and submitted for laboratory analysis as appropriate. The presence of lead-based paint was evaluated using an X-Ray fluorescence (XRF) field instrument.

2.0 ASBESTOS SURVEY

2.1 Regulatory Background

Regulations for asbestos exposure and/or asbestos release have been promulgated by the United States Environmental Protection Agency (EPA), U.S. Occupational Safety and Health Administration (OSHA), and New Hampshire Department of Environmental Services (NHDES).

OSHA regulates asbestos in the workplace through the Asbestos for General Industry Standard (29 Code of Federal Regulations [CFR] 1910.1001) and the removal of regulated asbestos-containing material (RACM) though the Asbestos Standard for Construction (29 CFR 1926.1101). OSHA regulations are created for the protection of the health of workers who may be occupationally exposed to asbestos. These occupations include asbestos abatement, construction activities, building maintenance, and others. OSHA requires that asbestos ACM be removed or appropriately abated prior to any work which will disturb the material, including demolition and renovation. Additionally, OSHA stipulates that thermal system insulation (TSI), surfacing materials and floor tile installed before 1980 must be presumed to be ACM unless appropriate sampling and analysis prove otherwise.

EPA and NHDES regulate ACM associated with building demolition, renovation, and abatement projects. The regulations are promulgated via the National Emission Standards for Hazardous Air Pollutants (NESHAP 40 CFR part 61) and the New Hampshire Cod of Administrative Rules (Env-A 1800). The regulations are developed to protect public health and the environment and require that buildings be inspected for asbestos prior to any demolition or renovation. Further, the regulations require that all affected friable and non-friable ACM which is damaged or will be damaged as a result of the demolition or renovation activities be properly removed or abated prior to disturbance by the work.

NESHAP defines three types of ACM:

- Friable ACM: ACM that can be reduced to power by hand pressure requiring removal prior to renovation or demolition (e.g., thermal system insulation (TSI), plaster, joint compound, ceiling tiles).
- Category I non-friable ACM: ACM that is not friable and does not require removal prior to demolition, unless these materials have become friable, will become friable if disturbed, or are in poor condition; must be removed prior to renovation (e.g., resilient floor covering, packings, gaskets, asphalt roofing).
- Category II non-friable ACM: ACM that is not friable and does not require removal prior to demolition, unless these materials have become friable, will become friable if disturbed, or are in poor condition; must be removed prior to renovation (all other non-friable ACM).

RACM is friable ACM and non-friable ACM that may become friable during demolition or renovation activities. Practically speaking, both Category I non-friable ACM and Category II non- friable ACM will become friable in a typical commercial demolition or renovation scenario and must be abated prior to the work.

2.2 Sample Collection and Analysis

Bulk samples were collected based on type and quantity of each suspect material following the sampling guidelines set forth in the Asbestos Hazard Emergency Response Act (AHERA 40 CFR 763.86). Green inspected for materials among those defined as suspect ACM by EPA's AHERA regulation which include:

- Thermal system insulation (TSI) (e.g., pipe/boiler lagging, duct insulation);
- Surfacing materials (e.g., spray-on insulation, texturing materials, plaster), and;
- Miscellaneous materials (e.g., ceiling tiles, transite panels, flooring, vibration joints, drywall).

Fiberglass, foam glass, rubber, wood products, plastic products, glass and steel were not sampled since they are not considered suspect ACM.

The asbestos survey was conducted by Mr. Luke Krzyzewski, New Hampshire Accredited Asbestos Inspector AI100882. A copy of personnel accreditation is included as **Appendix B**. A total of 108 bulk samples were collected from the 1 North Broadway building on December 13, 2019. The samples were collected using hand tools, and sampling equipment was cleaned between the collection of each sample. Each sample location was wet with water prior to sampling to avoid creating dust during sampling. Bulk samples were placed in individual air tight plastic bags and transferred to Asbestos Identification Laboratory of Woburn, Massachusetts for analysis via EPA 600/R-93/116 and/or EPA Interim Method 600/M4-82-020 methods using Polarized Light Microscopy (PLM). Asbestos Identification Laboratory is licensed by the National Voluntary Laboratory Accreditation Program (NVLAP) (#200919-00) for bulk asbestos analysis. The field survey, chain of custody documentation and laboratory certificates of analysis are included in **Appendix C**. In accordance with NESHAP and NHDES regulations, materials are considered asbestos-containing if they contain greater than 1% asbestos as determined by PLM.

The following is a list of materials that were determined to be **asbestos-containing**:

Unit 1:

- 12” Pink Floor Tile

The following is a list of materials that were determined to be **non-asbestos-containing**:

Interior: Unit 1

- 12” Pink Floor Tile Yellow Mastic
- 12” White Floor Tile and Mastic
- Joint Compound
- 12” Gray Floor Tile and Mastic
- Drywall
- 2’ x 4’ Fissure Dot Ceiling Tile

Interior: Unit 3-5

- Yellow Carpet Adhesive
- 12” White Floor Tile and Mastic
- 12” Pink Floor Tile and Mastic
- Black Cove Base and Adhesive
- Joint Compound
- 2’ x 4’ Fissure Dot Ceiling Tile
- 12” Black w/ White Streak Floor Tile and Mastic
- 12” Black Floor Tile and Mastic
- 12” Beige Floor Tile and Mastic
- Drywall
- 2’ x 2’ Fissure Dot Ceiling Tile

Interior: Unit 7

- Residual Yellow Carpet Mastic
- Drywall
- Panel Adhesive
- Yellow Sheet Floor and Adhesive
- Joint Compound
- 2' x 4' Fissure Dot Ceiling Tile

The following is a list of materials that were determined to be **non-asbestos-containing**: *(Continued)*

Interior: Unit 9

- 12" Off-White Floor Tile and Mastic
- 12" Black Floor Tile and Mastic
- Faux Wood Sheet Floor and Adhesive
- Drywall
- 2' x 2' Fissured Dot Ceiling Tile
- 12" Beige Floor Tile and Mastic
- Brown Sheet Floor and Adhesive
- Ceramic Floor Tile Adhesive and Grout
- Joint Compound

Exterior:

- Black Window Caulking
- Asphalt Shingle
- Field/Flash Material
- Black Door Caulking
- Black Flashing Material

Based on the review of analytical data associated with the above bulk sample collection, asbestos was **positively** identified at the 1 North Broadway building. Please refer to **Appendix E** which summarizes the materials, locations, and estimated quantities that tested positive for asbestos at the 1 North Broadway building. Site photographs are included in **Appendix A**. A Site Plan is included as **Figure 1**.

3.0 LEAD BASED PAINT SURVEY

3.1 Regulatory Background

The Occupational Safety and Health Administration (OSHA) worker protection rule has established a permissible exposure limit (PEL) of 0.050 milligrams per cubic meter for airborne lead. OSHA worker protection rules are applicable for any amount of lead. The Resource Conservation and Recovery Act (RCRA) regulates wastes containing lead as hazardous wastes if the leachable lead in the waste exceeds 5 parts per million (ppm) by Toxicity Characteristic Leachate Procedure (TCLP).

The United States Department of Housing and Urban Development (HUD) has established a threshold for in- lace paint of 1 mg/cm^2 lead as measured by X-ray fluorescence (XRF), above which paint is considered lead-containing. Although HUD guidelines are only directly applicable to residential buildings, the threshold is useful as a guideline for identifying exposure and waste disposal issues in non-residential buildings.

3.2 Sample Analysis

A Lead Based Paint (LBP) Survey was conducted on December 12 and December 13, 2020 by Mr. David Pesce, New Hampshire Lead Paint Inspector and Risk Assessor No. RA-00059, utilizing an XRF. This is a non-destructive analytical technique used to determine the elemental composition of materials. XRF analyzers determine the chemistry of a sample by measuring the fluorescent (or secondary) X-ray emitted from a sample

when it is excited by a primary X-ray source. This release of energy is then registered by the detector in the XRF instrument, which in turn categorizes the energies by element.

The investigation included a survey of painted surfaces for the presence of lead-based paint (LBP) throughout the building. No elevated levels of lead were identified during the survey. Please refer to the field inspection log sheets, included as **Appendix F,** which identifies the locations of elevated lead painted surfaces.

The purpose of the LBP survey was to assist the owner and/or contractor in OSHA compliance for worker protection during the planned renovation of the subject building. Survey results may also assist with characterization of construction debris/waste prior to disposal.

4.0 OTHER HAZARDOUS MATERIALS

4.1 Oil, Paints & Cleaners

No cleaning, maintenance supplies, or paints were noted within the property building.

4.2 Mercury Containing Devices

No mercury containing thermostats were identified within the building.

4.3 Fluorescent Lights & Ballasts

Fluorescent light fixtures were noted throughout the building. Fluorescent lighting tubes can contain both mercury and lead, and have special handling and disposal requirements. Under federal regulations used fluorescent lamp becomes a waste on the day that it is discarded. The disposal of fluorescent lighting tubes is regulated under the Resource Conservation and Recovery Act (RCRA).

Additionally, fluorescent light ballasts manufactured prior to 1979 may contain polychlorinated biphenyls (PCBs). PCB-based oils were used as insulating oil in many types of ballast to provide cooling and electrical isolation. PCBs are regulated by the EPA and also have special handling and disposal requirements, depending on the concentration.

Each light fixture should be inspected for "No PCBs" labeling, prior to removal. Lighting ballasts which contain PCBs should be segregated from non-PCB containing ballasts and properly disposed. Ballasts with no labeling should be considered PCB. The fluorescent tubes should be transported off-site for recycling. Please refer to **Appendix G,** for approximate quantities and locations of fluorescent lights and ballasts.

4.4 Refrigerants

No refrigerants were noted with the property building.

4.5 Emergency Equipment

Emergency lights were observed within the subject building. Batteries associated with these units are an alkaline, NiMH and NiCAD source. The batteries should be either recycled or properly disposed, prior to being disturbed. Emergency exit signs can also contain radioactive components requiring proper disposal. Please refer to **Appendix G,** for approximate quantities and locations of emergency equipment.

5.0 RESULTS AND RECOMMENDATIONS

GREEN has completed a Hazardous Materials Survey of the building located at 1 North Broadway in Salem, New Hampshire. The property building consists of an approximately 4,950 square foot commercial structure. GREEN understands the existing structure will be demolished. GREEN completed this Hazardous Materials Survey to support the planned redevelopment. The Survey included assessment for the presence of asbestos via bulk sample collection and laboratory analysis, a lead-based paint XRF survey, and the cataloging of oils and/or hazardous materials located within the building.

Asbestos was positively identified at the 1 North Broadway building, as summarized in **Section 2** and **Appendix E**. In accordance with NESHAP and NHDES regulations, all friable ACM, or materials made friable by demolition or renovation activities, must be removed from the building by a licensed asbestos abatement contractor, prior to demolition or renovation. Removal of ACM is regulated by NHDES. GREEN recommends the identified ACMs be removed from the buildings in accordance with applicable asbestos abatement regulations prior to the start of planned demolition activities. Asbestos abatement must be done by a New Hampshire licensed Asbestos Abatement Contractor and be properly disposed of offsite at an appropriate receiving facility in compliance with all applicable state and federal regulations. The New Hampshire asbestos regulations require visual inspection and clearance air monitoring at the completion of an asbestos abatement project. Additionally, full-time monitoring of asbestos abatement procedures in compliance with design specifications and regulations is recommended during major asbestos abatement projects.

NHDES regulations require notification to the Department and local government officials using the Asbestos Demolitions/Renovation Notification Form, 201-05-31 at least 10 working days prior to conducting of an asbestos response action of more than 10 linear-feet or 25 square feet of ACM.

Based on the results of the lead-based paint survey, surfaces analyzed as part of the survey were found to contain relatively low levels of lead in paint. OSHA worker protection rules apply for any amount of lead in paint, GREEN recommends that the owner provide the results of the LBP survey provided in this report to its demolition contractor. The contractor should consider this information in planning for worker protection during the demolition waste disposal. Removal of the paint prior to demolition is not required. However, the contractor may choose to monitor ambient air for lead during demolition, or demonstrate through air monitoring data collected from previous similar projects that the concentrations of lead identified will not result in an exceedance of the OSHA PEL during the demolition. The demolition contractor should also consider whether TCLP characterization of the demolition debris in accordance with RCRA is appropriate. Demolition work must be conducted in accordance with applicable federal, state, and local regulations. The XRF field inspection sheets are included in **Appendix F**.

Other oil and hazardous materials were identified within the building and should be properly segregated, disposed/or recycled as appropriate as summarized in **Section 4 and Appendix G** of this Survey report.

6.0 LIMITATIONS

The opinions expressed by GREEN are based solely on the observations, sampling and analysis, and information cited in this report. Observations were made at the subject site under the conditions stated. The purpose of this study was to determine the nature and approximate quantities of hazardous materials prior to demolition activities. This report does not constitute a complete determination of whether past or current owners, operators or occupants of the site have been in compliance with all applicable state, federal or local environmental regulations. This report does not constitute an AHERA survey. GREEN makes no representation regarding material located in inaccessible areas.

Semi-destructive measures were implemented to obtain bulk samples for asbestos analysis. GREEN makes no representation regarding inaccessible materials which may be located within walls, ceilings, ducts, roofs, below grade or other inaccessible areas. Additional field measurements and/or bulk sampling may be required following the exposure/removal of walls, flooring, etc. Should additional material be identified during demolition activities that are not listed in this report the work should be stopped and samples be collected to determine if hazardous classification is warranted.

Our conclusions are based solely on the information described herein and are believed to be representative of conditions at the time of the building survey. If additional information concerning the environmental conditions of the subject site becomes available, GREEN should be notified and presented with that information. Based on the new information, we will reevaluate the conclusions stated in this report to determine whether modifications are warranted.

This report is not a project specification and should not be used as a bidding document, including an asbestos abatement or building demolition specification.

We appreciate the opportunity to provide you with these environmental services. Please contact the undersigned with any questions at 617-479-0550.

Sincerely,
GREEN ENVIRONMENTAL, INC.

Luke Krzyzewski
Project Manager
Environmental Consulting Services

Kristen Awed-Ladas
Senior Project Manager
Environmental Consulting Services

Plans and Figures

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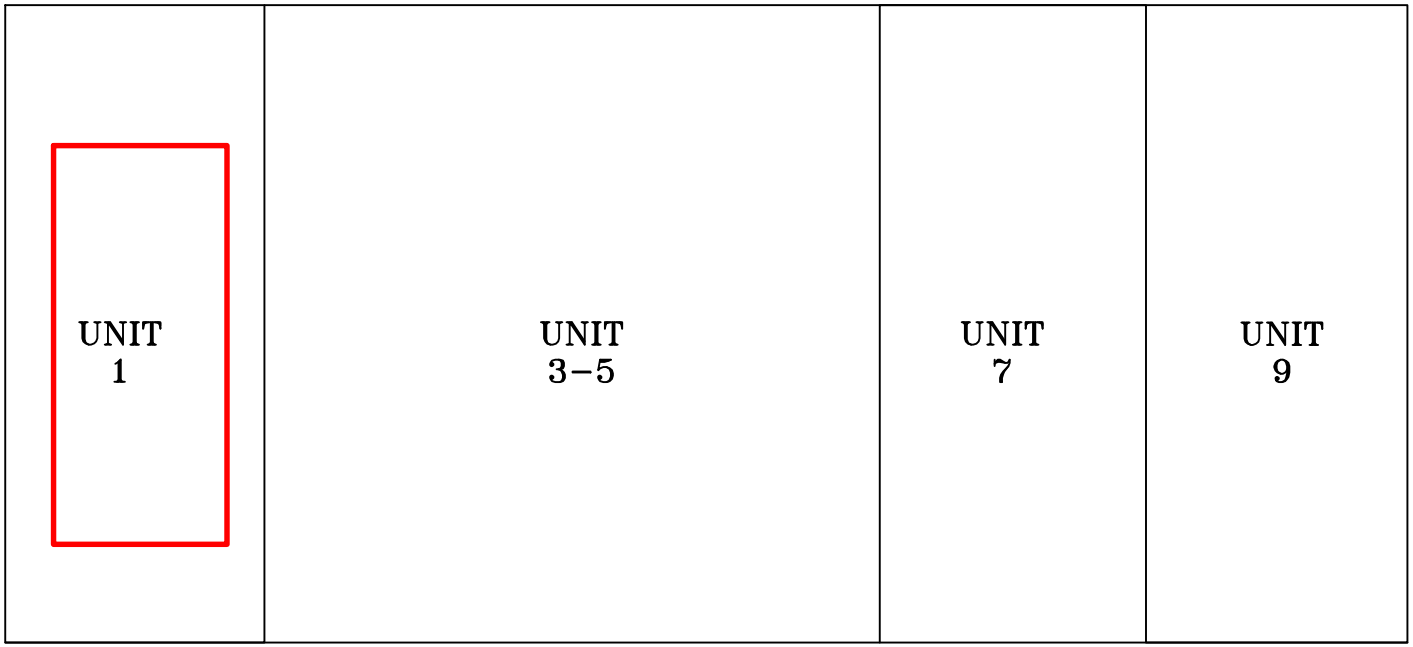
NORTH



APPROXIMATE LOCATION OF
ASBESTOS CONTAINING 12"
PINK FLOOR TILE

SITE PLAN
1 NORTH BROADWAY
SALEM, NH

VHB
101 WALNUT STREET
WATERTOWN, MA

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FIGURE: 1
PROJECT NO.: 19039
DATE: JANUARY 2020

APPROVED BY: KA
CHECKED BY: KA
DRAWN BY: LK

Appendix A

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A view of the east side of the building facing southwest

A view of the west side of the building, facing southeast.

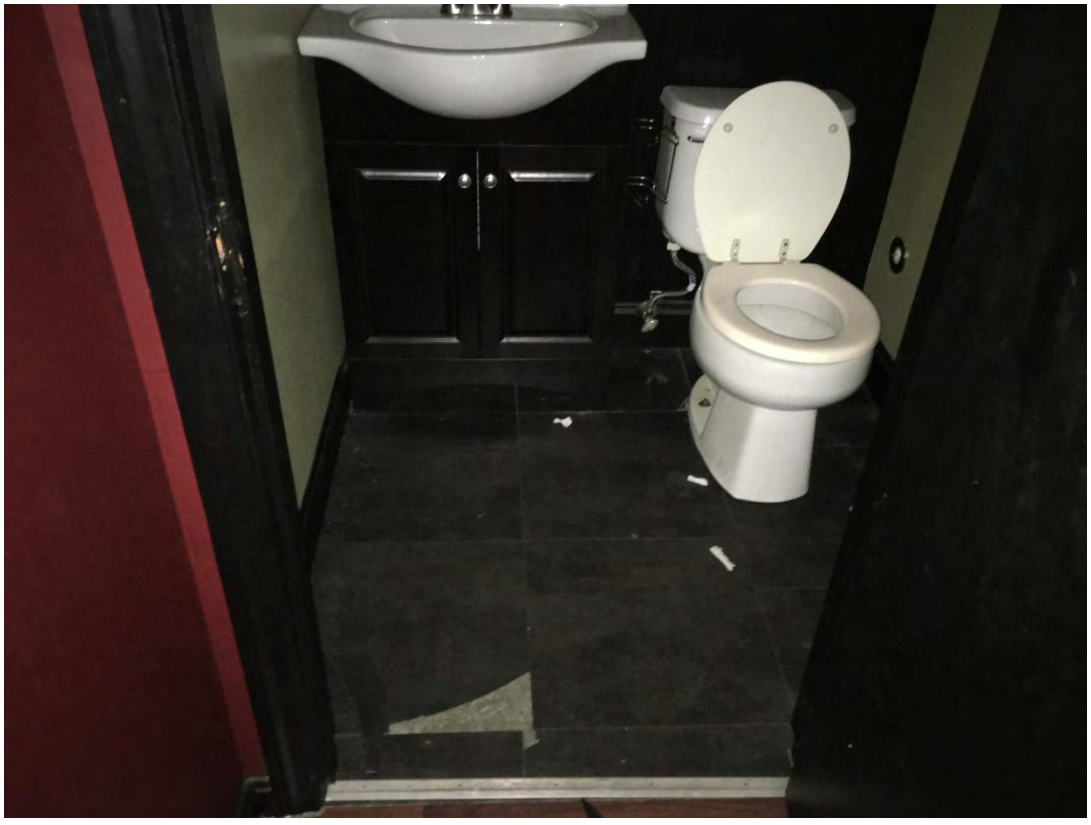
A view of the interior of Unit 1

A view of the interior of Unit 1

A view of the interior of Unit 3-5

A view of the interior of Unit 3-5

A view of the interior of Unit 7



A view of the interior of Unit 7

A view of the interior of Unit 9

A view of the interior of Unit 9

Appendix B

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1 N BROADWAY

Location	1 N BROADWAY	**Mblu**	89/ / 1149/ /
Acct#		**Owner**	JK KAKA REALTY INC
Assessment	$655,700	**Appraisal**	$655,700
PID	6415	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$343,300	$312,400	$655,700
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$343,300	$312,400	$655,700

Owner of Record

Owner	JK KAKA REALTY INC	**Sale Price**	$910,000
Co-Owner		**Certificate**	
Address	32 STANDISH RD HAVERHILL, MA 01832-2936	**Book & Page**	4825/0055
		Sale Date	07/23/2007

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
JK KAKA REALTY INC	$910,000		4825/0055	07/23/2007
CASTRICONE JOHN W	$0		2538/0875	03/21/1985

Building Information

Building 1 : Section 1

Year Built: 1965
Living Area: 4,950
Replacement Cost: $557,249
Replacement Cost Less Depreciation: $334,300

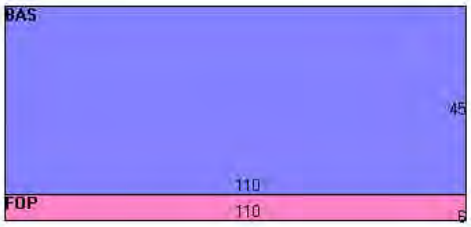
Building Attributes	
Field	**Description**
STYLE	Shop Center LO
MODEL	Comm/Ind
Stories:	1

Building Photo

Occupancy	3
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	Brick/Masonry
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Electric
Heating Type	Forced Air-Duc
AC Type	Heat Pump
Bldg Use	STORE/SHOP MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	3221
Heat/AC	HEAT/AC PKGS
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	SUS-CEIL & WL
Rooms/Prtns	AVERAGE
Wall Height	12
% Comn Wall	0

(http://images.vgsi.com/photos/SalemNHPhotos//\01\01\27/64.jpg)

Building Layout



(http://images.vgsi.com/photos/SalemNHPhotos//Sketches/6415

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,950	4,950
FOP	Porch, Open, Finished	660	0
		5,610	4,950

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	3220
Description	STORE/SHOP MDL-94
Zone	CA
Neighborhood	600
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.44
Frontage	0
Depth	0
Assessed Value	$312,400
Appraised Value	$312,400

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Assessed Value	Bldg #
PAV1	PAVING-ASPHALT			12000 S.F.	$9,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	$343,300	$312,400	$655,700
2016	$343,300	$312,400	$655,700
2015	$322,700	$289,800	$612,500

Assessment			
Valuation Year	Improvements	Land	Total
2017	$343,300	$312,400	$655,700
2016	$343,300	$312,400	$655,700
2015	$322,700	$289,800	$612,500

Appendix C

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GREEN ENVIRONMENTAL, INC.

Personnel Accreditation

Accredited Inspector

Name: Luke Krzyzewski

Accreditation Number: AI100882

Signature: _____

Licensure:

Appendix D

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Asbestos Identification Laboratory

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

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

Batch: 49462

NVLAP®
Lab Code: 200919-0

January 02, 2020

Luke Krzyzewski
Green Environmental Inc.
296 C Weymouth St.
Rockland, MA 02370

Project Name: *1 North Broadway, Salem, NH*
Project Number: #19039
Date Sampled: 2019-12-13
Work Received: 2019-12-23
Work Analyzed: 2019-12-30

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

Dear Luke Krzyzewski,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.
Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

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

Thank you Luke Krzyzewski for your business.

Michael Manning
Owner/Director

January 02, 2020

Luke Krzyzewski
Green Environmental Inc.
296 C Weymouth St.
Rockland, MA 02370

Project Name: *1 North Broadway, Salem, NH*
Project Number: #19039
Date Sampled: 2019-12-13
Work Received: 2019-12-23
Work Analyzed: 2019-12-30

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

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1A / 548164	12" Pink Floor Tile	1st Floor, Unit 1	tan	Non-Fibrous 98	Detected Chrysotile 2
1B / 548165	12" Pink Floor Tile	1st Floor, Unit 1			Not Analyzed
2A / 548166	12" Pink Floor Tile Mastic	1st Floor, Unit 1	yellow	Non-Fibrous 100	None Detected
2B / 548167	12" Pink Floor Tile Mastic	1st Floor, Unit 1	yellow	Non-Fibrous 100	None Detected
3A / 548168	12" Gray Floor Tile	1st Floor, Unit 1	gray	Non-Fibrous 100	None Detected
3B / 548169	12: Gray Floor Tile	1st Floor, Unit 1	gray	Non-Fibrous 100	None Detected
4A / 548170	12" Gray Floor Tile Mastic	1st Floor, Unit 1	yellow	Non-Fibrous 100	None Detected
4B / 548171	12" Gray Floor Tile Mastic	1st Floor, Unit 1	yellow	Non-Fibrous 100	None Detected
5A / 548172	12" White Floor Tile	1st Floor, Unit 1	white	Non-Fibrous 100	None Detected
5B / 548173	12" White Floor Tile	1st Floor, Unit 1	white	Non-Fibrous 100	None Detected
6A / 548174	12" White Floor Tile Mastic	1st Floor, Unit 1	yellow	Non-Fibrous 100	None Detected
6B / 548175	12" White Floor Tile Mastic	1st Floor, Unit 1	yellow	Non-Fibrous 100	None Detected
7A / 548176	Drywall	1st Floor, Unit 1	multi	Cellulose 20 Non-Fibrous 80	None Detected
7B / 548177	Drywall	1st Floor, Unit 1	multi	Cellulose 20 Non-Fibrous 80	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
8A 548178	Joint Compound	1st Floor, Unit 1	white	Non-Fibrous 100	None Detected
8B 548179	Joint Compound	1st Floor, Unit 1	white	Non-Fibrous 100	None Detected
8C 548180	Joint Compound	1st Floor, Unit 1	white	Non-Fibrous 100	None Detected
9A 548181	2x4 Fissure Dot Ceiling Tile	1st Floor, Unit 1	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
9B 548182	2x4 Fissure Dot Ceiling Tile	1st Floor, Unit 1	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
10A 548183	Yellow Carpet Adhesive	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
10B 548184	Yellow Carpet Adhesive	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
11A 548185	12" White Floor Tile	1st Floor, Unit 3-5	white	Non-Fibrous 100	None Detected
11B 548186	12" White Floor Tile	1st Floor, Unit 3-5	white	Non-Fibrous 100	None Detected
12A 548187	12" White Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
12B 548188	12" White Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
13A 548189	12' Black w/White Streak Floor Tile	1st Floor, Unit 3-5	black	Non-Fibrous 100	None Detected
13B 548190	12' Black w/White Streak Floor Tile	1st Floor, Unit 3-5	black	Non-Fibrous 100	None Detected
14A 548191	12' Black w/White Streak Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
14B 548192	12' Black w/White Streak Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
15A 548193	12" Black Floor Tile	1st Floor, Unit 3-5	gray	Non-Fibrous 100	None Detected
15B 548194	12" Black Floor Tile	1st Floor, Unit 3-5	gray	Non-Fibrous 100	None Detected
16A 548195	12" Black Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
16B 548196	12" Black Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
17A 548197	12" Pink Floor Tile	1st Floor, Unit 3-5	gray	Non-Fibrous 100	None Detected
17B 548198	12" Pink Floor Tile	1st Floor, Unit 3-5	gray	Non-Fibrous 100	None Detected
18A 548199	12' Pink Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
18B 548200	12" Pink Floor Tile Mastic	1st Floor, Unit 3-5	yellow	Non-Fibrous 100	None Detected
19A 548201	12" Beige Floor Tile	1st Floor, Unit 3-5	tan	Non-Fibrous 100	None Detected
19B 548202	12" Beige Floor Tile	1st Floor, Unit 3-5	tan	Non-Fibrous 100	None Detected
20A 548203	Black Cove Base	1st Floor, Unit 3-5	black	Non-Fibrous 100	None Detected
20B 548204	Black Cove Base	1st Floor, Unit 3-5	black	Non-Fibrous 100	None Detected
21A 548205	Black Cove Base Adhesive	1st Floor, Unit 3-5	tan	Non-Fibrous 100	None Detected
21B 548206	Black Cove Base Adhesive	1st Floor, Unit 3-5	tan	Non-Fibrous 100	None Detected
22A 548207	Drywall	1st Floor, Unit 3-5	multi	Cellulose 20 Non-Fibrous 80	None Detected
22B 548208	Drywall	1st Floor, Unit 3-5	multi	Cellulose 20 Non-Fibrous 80	None Detected
23A 548209	Joint Compound	1st Floor, Unit 3-5	white	Non-Fibrous 100	None Detected
23B 548210	Joint Compound	1st Floor, Unit 3-5	white	Non-Fibrous 100	None Detected
23C 548211	Joint Compound	1st Floor, Unit 3-5	white	Non-Fibrous 100	None Detected
24A 548212	2x2 Fissure Ceiling Tile	1st Floor, Unit 3-5	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
24B 548213	2x2 Fissure Ceiling Tile	1st Floor, Unit 3-5	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
25A 548214	2x4 Fissure Ceiling Tile	1st Floor, Unit 3-5	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
25B 548215	2x4 Fissure Ceiling Tile	1st Floor, Unit 3-5	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
26A 548216	Residual Yellow Mastic	1st Floor, Unit 7	yellow	Non-Fibrous 100	None Detected
26B 548217	Residual Yellow Mastic	1st Floor, Unit 7	yellow	Non-Fibrous 100	None Detected
27A 548218	Yellow Sheet Floor	1st Floor, Unit 7	multi	Cellulose 40 Non-Fibrous 60	None Detected
27B 548219	Yellow Sheet Floor	1st Floor, Unit 7	multi	Cellulose 40 Non-Fibrous 60	None Detected
28A 548220	Yellow Sheet Floor Adhesive	1st Floor, Unit 7	yellow	Non-Fibrous 100	None Detected
28B 548221	Yellow Sheet Floor Adhesive	1st Floor, Unit 7	yellow	Non-Fibrous 100	None Detected
29A 548222	Drywall	1st Floor, Unit 7	multi	Cellulose 10 Non-Fibrous 90	None Detected
29B 548223	Drywall	1st Floor, Unit 7	multi	Cellulose 20 Non-Fibrous 80	None Detected
30A 548224	Joint Compound	1st Floor, Unit 7	white	Non-Fibrous 100	None Detected
30B 548225	Joint Compound	1st Floor, Unit 7	white	Non-Fibrous 100	None Detected
30C 548226	Joint Compound	1st Floor, Unit 7	white	Non-Fibrous 100	None Detected
31A 548227	Panel Adhesive	1st Floor, Unit 7	tan	Non-Fibrous 100	None Detected
31B 548228	Panel Adhesive	1st Floor, Unit 7	tan	Non-Fibrous 100	None Detected
32A 548229	2x4 Fissure Dot Ceiling Tile	1st Floor, Unit 7	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
32B 548230	2x4 Fissure Dot Ceiling Tile	1st Floor, Unit 7	gray	Mineral Wool 20 Cellulose 70 Non-Fibrous 10	None Detected
33A 548231	12" Off-White Floor Tile	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33B 548232	12" Off-White Floor Tile	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected
34A 548233	12" Off-White Floor Tile Mastic	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
34B 548234	12" Off-White Floor Tile Mastic	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
35A 548235	12" Beige Floor Tile	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected
35B 548236	12" Beige Floor Tile	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected
36A 548237	12" Beige Floor Tile Mastic	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
36B 548238	12" Beige Floor Tile Mastic	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
37A 548239	12" Black Floor Tile	1st Floor, Unit 9	black	Non-Fibrous 100	None Detected
37B 548240	12" Black Floor Tile	1st Floor, Unit 9	black	Non-Fibrous 100	None Detected
38A 548241	12" Black Floor Tile Mastic	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
38B 548242	12" Black Floor Tile Mastic	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
39A 548243	Brown Sheet Floor	1st Floor, Unit 9	multi	Cellulose 60 Non-Fibrous 40	None Detected
39B 548244	Brown Sheet Floor	1st Floor, Unit 9	multi	Cellulose 60 Non-Fibrous 40	None Detected
40A 548245	Brown Sheet Floor Adhesive	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
40B 548246	Brown Sheet Floor Adhesive	1st Floor, Unit 9	yellow	Non-Fibrous 100	None Detected
41A 548247	Faux Wood Sheet Floor	1st Floor, Unit 9	multi	Non-Fibrous 100	None Detected
41B 548248	Faux Wood Sheet Floor	1st Floor, Unit 9	multi	Non-Fibrous 100	None Detected
42A 548249	Faux Wood Sheet Floor Adhesive	1st Floor, Unit 9	tan	Non-Fibrous 100	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
42B 548250	Faux Wood Sheet Floor Adhesive	1st Floor, Unit 9	tan	Non-Fibrous 100	None Detected
43A 548251	Ceramic Floor Tile Adhesive	1st Floor, Unit 9	gray	Non-Fibrous 100	None Detected
43B 548252	Ceramic Floor Tile Adhesive	1st Floor, Unit 9	gray	Non-Fibrous 100	None Detected
44A 548253	Ceramic Floor Tile Grout	1st Floor, Unit 9	gray	Fiberglass 2 Non-Fibrous 98	None Detected
44B 548254	Ceramic Floor Tile Grout	1st Floor, Unit 9	gray	Fiberglass 2 Non-Fibrous 98	None Detected
45A 548255	Drywall	1st Floor, Unit 9	multi	Cellulose 20 Non-Fibrous 80	None Detected
45B 548256	Drywall	1st Floor, Unit 9	multi	Cellulose 20 Non-Fibrous 80	None Detected
46A 548257	Joint Compound	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected
46B 548258	Joint Compound	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected
46C 548259	Joint Compound	1st Floor, Unit 9	white	Non-Fibrous 100	None Detected
47A 548260	2x2 Fissure Ceiling Tile	1st Floor, Unit 9	gray	Mineral Wool 30 Cellulose 60 Non-Fibrous 10	None Detected
47B 548261	2x2 Fissure Ceiling Tile	1st Floor, Unit 9	gray	Mineral Wool 30 Cellulose 60 Non-Fibrous 10	None Detected
48A 548262	Window Caulking	Exterior, East Side	black	Non-Fibrous 100	None Detected
48B 548263	Window Caulking	Exterior, East Side	black	Non-Fibrous 100	None Detected
49A 548264	Door Caulking	Exterior, West Side	black	Non-Fibrous 100	None Detected
49B 548265	Door Caulking	Exterior, West Side	black	Non-Fibrous 100	None Detected
50A 548266	Asphalt Shingle	Exterior, Roof	black	Cellulose 30 Non-Fibrous 70	None Detected
50B 548267	Asphalt Shingle	Exterior, Roof	black	Cellulose 30 Non-Fibrous 70	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
51A 548268	Black Flash Material	Exterior, Roof	black	Non-Fibrous 100	None Detected
51B 548269	Black Flash Material	Exterior, Roof	black	Non-Fibrous 100	None Detected
52A 548270	Field/Flash Material	Exterior, Roof	black	Cellulose 30 Non-Fibrous 70	None Detected
52B 548271	Field/Flash Material	Exterior, Roof	black	Cellulose 30 Non-Fibrous 70	None Detected

Thursday 02 January

Analyzed by: Erik Gorgas

End of Report

Batch: 49462

Due 1-2-20

CHAIN OF CUSTODY

EPA/600/R-93/116

Asbestos Identification Lab
165 New Boston St.
Suite 227
Woburn, MA 01801
(781)932-9600
www.asbestosidentificationlab.com

Page 1 of 22

Client: Green Environmental
Address:
Project Site & #: North Broadway
Phone / email address:
Contact:
Relinquish by/date:
Received by/date: 12-23-19
# of Samples Received: 108

Date Sampled:

BATCH# 49462 Rev 06/16

Turnaround Time
- [ ] Less 3 Hrs
- [ ] Same Day
- [ ] Next Day
- [ ] ~~Two~~ 7 Day

Sample Method
- [x] Bulk
- [ ] Soil
- [ ] Wipe
- [ ] Point Count

Stop on 1st Positive? (Yes)/No
Notify Method: Mail/E-Mail/Verbal
Analyzed By:
Date: 1/3/20

Temp in Celsius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
491849	1A	Material	0	T	~	S	~	Chrysotile	2	CL	=	+	L	~	(low)	(low)							
		Location						Amosite															
								Crocidolite															
								Tremolite															98
								Anthophyllite															
								Actinolite															
50	1B	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
49	2A	Material	0	Y	Y	S	N	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															10

DNA

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ‖	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
69	2B	Material	0	y	y	sm	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
68	3A	Material	0	gy	sm	sm	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
67	3B	Material	0	gy	sm	sm	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
04	4A	Material	0	y	y	sm	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
14	4B	Material	0	y	y	sm	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	∥	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
EL	5A	Material	O	wh	~	gr	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
EL	5B	Material	~	wh	~	gr	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
AL	6A	Material	O	y	y	gr	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
AL	6B	Material	O	y	y	gr	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
AL	7A	Material	O	we	~	gr	~	Chrysotile															
								Amosite															
								Crocidolite											12				
		Location						Tremolite											88				88
								Anthophyllite															
								Actinolite															

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
LL	7B	Material	0	vc	v	Sm	F	Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite											20				80
								Anthophyllite															
								Actinolite															
2L	8A	Material	0	vlt	v	Sm	F	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
4L	8B	Material	0	vlt	v	Sm	F	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
08	8C	Material	0	vlt	v	Sm	F	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
18	9A	Material	0	vlt	v	R	F	Chrysotile															
		Location						Amosite											5	2			
								Crocidolite															
								Tremolite											20	70			10
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
28	9B	Material	0	~	~	F		Chrysotile															
								Amosite															
								Crocidolite										F	R				
		Location						Tremolite										20	20				10
								Anthophyllite															
								Actinolite															
38	10A	Material	C	~	~	~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															15
								Anthophyllite															
								Actinolite															
48	10B	Material	C	~	~	~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															15
								Anthophyllite															
								Actinolite															
58	11A	Material	C	~	~	~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															10
								Anthophyllite															
								Actinolite															
68	11B	Material	C	~	~	~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															10
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: =	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
28	12A	Material	0	y	y	fr	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
28	12B	Material	0	y	y	fr	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
68	13A	Material	0	blk	~	fr	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
06	13B	Material	0	blk/wht	~	fr	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
16	14A	Material	0	y	y	fr	sm	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
4b	14B	Material	0	y	y	gr	w	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
5b	15A	Material	0	gy	w	gr	w	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
6b	15B	Material	0	gy	w	gr	w	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
7b	16A	Material	0	y	y	gr	w	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
8b	16B	Material	0	y	y	gr	w	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
Lab	17A	Material	0	Br	~	Gr	~	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1W
								Anthophyllite															
								Actinolite															
Lab	17B	Material	0	Br	~	Gr	~	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1W
								Anthophyllite															
								Actinolite															
Lab	18A	Material	0	Br	Y	Gr	~	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1W
								Anthophyllite															
								Actinolite															
Lab	18B	Material	0	Br	Y	Gr	~	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1W
								Anthophyllite															
								Actinolite															
Lab	19A	Material	0	T	~	Gr	~	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1W
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
20	19B	Material	0	T	~	Sl ~		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
03	20A	Material	0	Blue	y	sl ~		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
04	20B	Material	0	Slight Blue	y	Sl ~		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
05	21A	Material	0	T	y	Sl ~		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
06	21B	Material	0	T	y	Sl ~		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
20	22A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	ve	~		y	Tremolite											20				80
								Anthophyllite															
								Actinolite															
21	22B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	ve	~			Tremolite											20				80
								Anthophyllite															
								Actinolite															
22	23A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	why	y			Tremolite															100
								Anthophyllite															
								Actinolite															
23	23B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	why	y			Tremolite															100
								Anthophyllite															
								Actinolite															
24	23C	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	why	y			Tremolite															100
								Anthophyllite															
								Actinolite															

Temp in Celcius = 27

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	∥	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
21	24A	Material						Chrysotile															
								Amosite															
								Crocidolite										8	12				
		Location	0	gy	N	F	Y	Tremolite										80	20				10
								Anthophyllite															
								Actinolite															
22	24B	Material						Chrysotile															
								Amosite															
								Crocidolite										8	12				
		Location	0	gy	N	R	Y	Tremolite										80	20				10
								Anthophyllite															
								Actinolite															
23	25A	Material						Chrysotile															
								Amosite															
								Crocidolite										8	12				
		Location	0	gy	N	R	Y	Tremolite										80	20				10
								Anthophyllite															
								Actinolite															
24	25B	Material						Chrysotile															
								Amosite															
								Crocidolite										8	12				
		Location	0	gy	N	R	Y	Tremolite										80	20				10
								Anthophyllite															
								Actinolite															
25	26A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	y	y	gr	N	Tremolite															10
								Anthophyllite															
								Actinolite															

Temp in Celcius = 27

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
L1	26B	Material	0	y	y	s~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															12
								Anthophyllite															
								Actinolite															
81	27A	Material	0	m	~	s~	~	Chrysotile															
								Amosite															
								Crocidolite											12				
		Location						Tremolite															60
								Anthophyllite															
								Actinolite															
b1	27B	Material	0	m	~	s~	~	Chrysotile															
								Amosite															
								Crocidolite											12				
		Location						Tremolite															60
								Anthophyllite															
								Actinolite															
82	28A	Material	0	y	y	s~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															12
								Anthophyllite															
								Actinolite															
12	28B	Material	0	y	y	s~	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															12
								Anthophyllite															
								Actinolite															

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
12	29A	Material	0	me	~	fr	y	Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite											10				90
								Anthophyllite															
								Actinolite															
13	29B	Material	0	me	~	fr	y	Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite											20				80
								Anthophyllite															
								Actinolite															
14	30A	Material	0	wh	y	fr	y	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
15	30B	Material	0	wh	y	fr	y	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
16	30C	Material	0	wh	y	fr	y	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
12	31A	Material	0	T	Y	S	N	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															100
								Anthophyllite															
								Actinolite															
13	31B	Material	0	T	Y	S	N	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															100
								Actinolite															
14	32A	Material	0	BY	N	R	Y	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
15	32B	Material	0	BY	N	R	Y	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
16	33A	Material	0	WH	N	S	N	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
32	33B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	wh	~	gr	~	Tremolite															100
								Anthophyllite															
								Actinolite															
33	34A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	y	y	gr	~	Tremolite															100
								Anthophyllite															
								Actinolite															
34	34B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	y	y	br	~	Tremolite															100
								Anthophyllite															
								Actinolite															
35	35A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	wh	~	gr	~	Tremolite															100
								Anthophyllite															
								Actinolite															
36	35B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	wh	~	gr	~	Tremolite															100
								Anthophyliite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = ____ / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
3,	36A	Material	0	y	y	gr	r	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1a
								Anthophyllite															
								Actinolite															
3a	36B	Material	0	y	y	gr	r	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1a
								Anthophyllite															
								Actinolite															
3a	37A	Material	0	dy	r	gr	r	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1a
								Anthophyllite															
								Actinolite															
4a	37B	Material	0	dy	r	gr	r	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1a
								Anthophyllite															
								Actinolite															
4	38A	Material	0	y	y	gr	r	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1a
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 87 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
eh	38B	Material	O	y	y	gw		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1w
								Anthophyllite															
								Actinolite															
eh	39A	Material	O	me	n	gw		Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite															3e
								Anthophyllite											3e				
								Actinolite															
eh	39B	Material	O	me	n	gw		Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite															5e
								Anthophyllite											3e				
								Actinolite															
eh	40A	Material	O	y	y	gw		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1w
								Anthophyllite															
								Actinolite															
eh	40B	Material	O	y	y	gw		Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															1w
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 27 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
41	41A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	we	y	sm	v	Tremolite															100
								Anthophyllite															
								Actinolite															
87	41B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	we		y	sm	v	Tremolite															100
								Anthophyllite															
								Actinolite															
64	42A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	T	y	sm	v	Tremolite															100
								Anthophyllite															
								Actinolite															
25	42B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	T	y	sm	v	Tremolite															100
								Anthophyllite															
								Actinolite															
15	43A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	0	gy	y	sm	v	Tremolite															100
								Anthophyllite															
								Actinolite															

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
25	43B	Material	0	Gy	H	Sm	W	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															13
								Anthophyllite															
								Actinolite															
33	44A	Material	0	Gy	H	Sm	W	Chrysotile															
		Location						Amosite															
								Crocidolite									8						
								Tremolite															98
								Anthophyllite									2						
								Actinolite															
24	44B	Material	0	Gy	H	Sm	W	Chrysotile															
		Location						Amosite															
								Crocidolite									8						
								Tremolite															
								Anthophyllite									2						98
								Actinolite															
29	45A	Material	0	NC	W	Sm	Gy	Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite															
								Anthophyllite											22				82
								Actinolite															
25	45B	Material	0	NC	W	Sm	Gy	Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite															
								Anthophyllite											22				82
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
59	46A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	O	wh	y	Sm	y	Tremolite															10
								Anthophyllite															
								Actinolite															
60	46B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	O	wh	y	Sm	y	Tremolite															12
								Anthophyllite															
								Actinolite															
61	46C	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	O	wh	y	Sm	y	Tremolite															10
								Anthophyllite															
								Actinolite															
62	47A	Material						Chrysotile															
								Amosite															
								Crocidolite											8	2			
		Location	O	Sm	w	R	y	Tremolite											30	60			10
								Anthophyllite															
								Actinolite															
63	47B	Material						Chrysotile															
								Amosite															
								Crocidolite											8	2			
		Location	O	Sm	w	R	y	Tremolite											30	60			10
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
47	48A	Material	0	Blk	H	Sm	NF	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
48	48B	Material	0	Blk	H	Sm	NF	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
49	49A	Material	0	Blk	H	Sm	NF	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
50	49B	Material	0	Blk	H	Sm	NF	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															10
								Anthophyllite															
								Actinolite															
51	50A	Material	0	Blk	NH	Sm/Fr	NF	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															20
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = RT / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
67	50B	Material	0	Brn	~	Fbr	~	Chrysotile											2				
								Amosite															
								Crocidolite											1				
		Location						Tremolite											30				2
								Anthophyllite															
								Actinolite															
68	51A	Material	0	Brn	~	Fbr	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															TR
								Anthophyllite															
								Actinolite															
69	51B	Material	0	Brn	~	Fbr	~	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															TR
								Anthophyllite															
								Actinolite															
70	52A	Material	0	Brn	~	Fbr	~	Chrysotile															
								Amosite															
								Crocidolite											2				
		Location						Tremolite															
								Anthophyllite											30				2
								Actinolite															
1729945	52B	Material	0	Brn	~	Fbr	~	Chrysotile															
								Amosite															
								Crocidolite											2				
		Location						Tremolite															
								Anthophyllite											20				2
								Actinolite															

EG

Due Thursday

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 1 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com 108

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 1	12" Pink Floor Tile	1A		-
			↓	1B		-
			12" Pink Floor Tile Mastic	2A		-
			↓	2B		-
			12" Gray Floor Tile	3A		-
			↓	3B		-
			12" Gray Floor Tile Mastic	4A		-
			↓	4B		-
			12" White Floor Tile	5A		-
			↓	5B		-
			12" White Floor Tile Mastic	6A		-
			↓	6B		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples
	12/16/19	108		12/23/19		

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 2 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039 2 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 1	Drywall	7A		–
↓	↓	↓	↓	7B		–
			Joint Compound	8A		–
			↓	8B		–
			↓	8C		–
			2x4 Fissure Pat Ceiling Tile	9A		–
		↓	↓	9B		–
		Unit 3-5	Yellow Carpet Adhesive	10A		–
		↓	↓	10B		–
			12" White Floor Tile	11A		–
			↓	11B		–
↓	↓	↓	12" White Floor Tile Mastic	12A		–

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 3 of 9

Project Address: 1 North Broadway, Salem, NH Project #: F 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 3-5	12" White Floor Tile Mastic	12B		-
			12" Black w/ White Streak Floor Tile	13A		-
			↓	13B		-
			12" Black w/ white Streak Floor Tile Mastic	14A		-
			↓	14B		-
			12" Black Floor Tile	15A		-
			↓	15B		-
			12" Black Floor Tile Mastic	16A		-
			↓	16B		-
			12" Pink Floor Tile	17A		-
			↓	17B		-
			12" Pink Floor Tile Mastic	18A		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 4 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 3-5	12" Pink Floor Tile mastic	18B		-
			12" Beige Floor Tile	19A		-
			↓	19B		-
			Black Cove Base	20A		-
			↓	20B		-
			Black Cove Base Adhesive	21A		-
			↓	21B		-
			Drywall	22A		-
			↓	22B		-
			Joint Compound	23A		-
			↓	23B		-
			↓	23C		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 5 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19639 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 3-5	2x2 Fissure Ceiling Tile	24A		-
			↓	24B		-
			2x4 Fissure Ceiling Tile	25A		-
			↓	25B		-
		Unit 7	Residual Yellow mastic	26A		-
			↓	26B		-
			Yellow Sheet Floor	27A		-
			↓	27B		-
			Yellow Sheet Floor Adhesive	28A		-
			↓	28B		-
			Drywall	29A		-
			↓	29B		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

296 Weymouth Street, Rockland MA 02370 - P: (617)479-0550 - F: (617) 479-5150

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 6 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 7	Joint compound	30A		–
			↓	30B		–
			↓	30C		–
			Panel Adhesive	31A		–
			↓	31B		–
			2x4 Fissure Dot Ceiling Tile	32A		–
			↓	32B		–
		Unit 9	12" off-white Floor Tile	33A		–
			↓	33B		–
			12" off-white Floor Tile Mastic	34A		–
			↓	34B		–
			12" Beige Floor Tile	35A		–

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 7 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 9	12" Beige Floor Tile	35B		
			12" Beige Floor Tile mastic	36A		
			↓	36B		
			12" Black Floor Tile	37A		
			↓	37B		
			12" Black Floor Tile mastic	38A		
			↓	38B		
			Brown Sheet Floor	39A	Bottom Layer	
			↓	39B		
			Brown Sheet Floor Adhesive	40A		
			↓	40B		
			Faux wood Sheet Floor	41A		

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 8 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 9	Faux wood Sheet Floor	41B		-
			Faux wood Sheet Floor Adhesive	42A		-
			↓	42B		-
			Ceramic Floor Tile Adhesive	43A		-
			↓	43B		-
			Ceramic Floor Tile Grout	44A		-
			↓	44B		-
			Drywall	45A		-
			↓	45B		-
			Joint Compound	46A		-
			↓	46B		-
			↓	46C		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

296 Weymouth Street, Rockland MA 02370 - P: (617)479-0550 - F: (617) 479-5150

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/13/2019 Page: 9 of 9

Project Address: 1 North Broadway, Salem, NH Project #: 19039.2 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
1 North Broadway	1st	Unit 9	2x2 Fissure Ceiling Tile	47A		-
↓	↓	↓	↓	47B		-
↓	Exterior	East Side	window Caulking	48A		-
↓	↓	↓	↓	48B		-
↓	↓	West Side	Door Caulking	49A		-
↓	↓	↓	↓	49B		-
↓	↓	Roof	Asphalt Shingle	50A		-
↓	↓	↓	↓	50B		-
↓	↓	↓	Black Flash material	51A		-
↓	↓	↓	↓	51B		-
↓	↓	↓	Field / Flash material	52A		-
↓	↓	↓	↓	52B		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

Appendix E

GREEN
ENVIRONMENTAL

Appendix E Locations of the Identified Asbestos-Containing Materials 1 North Broadway Salem, NH		
Location	**Material Description**	**Estimated Quantity**
1st Floor		
Unit 1	12” Pink Floor Tile	600 SF
Notes: 1. SF = Square Feet		

Appendix F

GREEN
ENVIRONMENTAL

Titan Lead Testing, LLC

Titan Lead Testing, LLC
PO Box 760709
Melrose, MA 02176

Tel: 781-799-8763
Fax: 781-662-3300

December 31, 2019
Luke Krzyzewski
Green Environmental
296 Weymouth St., Unit C
Rockland, MA 02370

RE: Lead Paint Testing Results
1-19 North Broadway
Salem, New Hampshire

Dear Mr. Krzyzewski:

This report presents the results of testing for the presence of lead paint on interior painted at 1-19 North Broadway, Salem, New Hampshire. Representative of Titan Lead Testing (Titan), Mr. David Pesce performed the testing on December 12, 2019 and December 13, 2019. Mr. Pesce is manufacturer's-trained in the proper use and interpretation of results of the XRF Spectrum Analyzer. Mr. Pesce is also a New Hampshire Department of Health and Human Services licensed Lead Inspector and Risk Assessor (Lic # RA-00059).

Scope of Work

The purpose of the lead testing was to determine the lead content of various painted building substrates prior to renovation and demolition activities. Selected relevant accessible painted surfaces were tested by Titan. Concentrations of lead in paint were measured on site by portable XRF analysis.

Sampling Protocol

The lead content of painted surfaces was determined using a portable X-ray Fluorescence (XRF) Spectrum Analyzer (HEURESIS Pb200i; Serial # 1645). The XRF Spectrum Analyzer uses a radioactive source to excite the electrons of lead atoms (if present) in paints. As the lead atom electrons return to their normal state, they emit X-rays, which are counted by the XRF Spectrum Analyzer. This data is processed and the results are converted to milligrams of lead per square centimeter (mg/cm^2) of sampled surface area.

Results

The XRF testing results indicate that levels of lead on surfaces tested range from less than 0.1 mg/cm^2 (lower limit of quantification of the XRF) to 0.4 mg/cm^2. Renovation and demolition activities that impact surfaces where lead may be present require specific work practices and disposal requirements. A summary of the lead testing results is attached.

Recommendations

The employer of workers who disturb or remove lead paint must comply with OSHA Standard 29 CFR 1926.62 - Lead. This applies to all construction work, alteration, or repair, including painting, where an employee may be occupationally exposed to lead. This standard does not establish a minimum threshold for the lead content, below which an initial exposure assessment is not required. An initial exposure assessment is required for each renovation or demolition activity that will disturb lead. This standard also contains additional requirements concerning the disturbance or removal of lead.

Limitations

Lead paint testing was performed on representative building substrates in selected building areas. Additional lead-containing building substrates and components may be present in other building areas or hidden by floor, wall and ceiling finishes or otherwise may be inaccessible.

Lead paint testing was performed to determine the lead content of painted building components that may be impacted by renovation activities and should **not** be used to determine compliance with the New Hampshire Lead Paint Poisoning Prevention and Control Act (RSA 130-A)

Please call if you have any questions or require additional information.

Sincerely,

David Pesce

Attachment

ATTACHMENT

LEAD TESTING RESULTS BY XRF

Lead Paint Testing Results by XRF
22 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
1 - Main Room	Wall	White	Gypsum	< 0.1
1 - Main Room	Wall	Red	Gypsum	< 0.1
1 - Main Room	Wall	Blue	Gypsum	< 0.1
1 - Main Room	Wall	Green	Gypsum	< 0.1
1 - Main Room	Cabinet	Brown	Wood	< 0.1
1 - Main Room	Bench	Brown	Wood	< 0.1
1 - Main Room	Baseboard	Brown	Wood	< 0.1
1 - Main Room	Window Sill	Brown	Wood	< 0.1
1 - Main Room	Window Sash	Brown	Metal	< 0.1
1 - Main Room	Front Door	Brown	Metal	< 0.1
1 - Main Room	Front Door Frame	Brown	Metal	0.3
1 - Main Room	Rear Door	Brown	Metal	< 0.1
1 - Main Room	Rear Door Frame	Brown	Metal	0.2
1 - Main Room	Door	Brown	Wood	< 0.1
1 - Main Room	Door Frame	Brown	Wood	< 0.1
1 - Main Room	Decking	Gray	Metal	< 0.1
1 - Main Room	Beam	Gray	Metal	< 0.1
1 - Bathroom	Wall	Green	Gypsum	< 0.1
1 - Bathroom	Baseboard	Gray	Wood	< 0.1
1 - Bathroom	Door	Gray	Wood	< 0.1
1 - Bathroom	Door Casing	Gray	Wood	< 0.1
3 - Front Room	Wall	White	Gypsum	< 0.1
3 - Front Room	Baseboard	Gray	Wood	< 0.1
3 - Front Room	Column	White	Gypsum	< 0.1
3 - Front Room	Window Sill	Brown	Wood	< 0.1
3 - Front Room	Window Sash	Brown	Metal	< 0.1
3 - Front Room	Door	Brown	Metal	< 0.1
3 - Front Room	Door Frame	Brown	Metal	< 0.1
3 - Front Room	Door	White	Wood	< 0.1
3 - Front Room	Door jamb	White	Wood	< 0.1
3 - Front Room	Window Frame	Gray	Wood	< 0.1
3 - Back Room	Wall	White	Wood	< 0.1
3 - Back Room	Window Frame	Brown	Wood	< 0.1
3 - Back Room	Cabinet	White	Wood	< 0.1
3 - Back Room	Cabinet	Gray	Wood	< 0.1
3 - Back Room	Floor	Gray	Concrete	0.3
3 - Back Room	Decking	Gray	Metal	0.2

Lead Paint Testing Results by XRF
22 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
3 - Back Room	Beam	Gray	Metal	< 0.1
3 - Back Room	Door	White	Wood	< 0.1
3 - Back Room	Door Casing	White	Wood	< 0.1
3 - Back Room	Door	Brown	Metal	< 0.1
3 - Back Room	Door Frame	Brown	Metal	0.4
3 - Back Room	Baseboard	Brown	Wood	< 0.1
3 - Bathroom	Wall	White	Gypsum	< 0.1
3 - Bathroom	Door	White	Wood	< 0.1
3 - Bathroom	Door Casing	White	Wood	< 0.1
3 - Bathroom	Decking	Gray	Metal	< 0.1
3 - Bathroom	Beam	Gray	Metal	0.2
5 - Front Room	Wall	White	Gypsum	< 0.1
5 - Front Room	Column	White	Gypsum	< 0.1
5 - Front Room	Decking	Gray	Metal	0.2
5 - Front Room	Beam	Gray	Metal	0.3
5 - Front Room	Window Sill	Brown	Wood	< 0.1
5 - Front Room	Window Sash	Brown	Metal	< 0.1
5 - Front Room	Door	Brown	Metal	< 0.1
5 - Front Room	Door Frame	Brown	Metal	< 0.1
5 - Front Room	Door	Brown	Wood	< 0.1
5 - Front Room	Door Casing	Brown	Wood	< 0.1
5 - Front Room	Baseboard	Brown	Wood	< 0.1
5- Back Room	Wall	White	Gypsum	< 0.1
5- Back Room	Decking	Gray	Metal	0.2
5- Back Room	Beam	Gray	Metal	0.3
5- Back Room	Floor	Gray	Concrete	0.3
5- Back Room	Door	Red	Wood	< 0.1
5- Back Room	Door Casing	Brown	Wood	< 0.1
5- Back Room	Door	Brown	Metal	< 0.1
5- Back Room	Door Frame	Brown	Metal	< 0.1
5 - Bathroom	Wall	Red	Gypsum	< 0.1
5 - Bathroom	Cabinet	White	Wood	< 0.1
5 - Bathroom	Door	Brown	Wood	< 0.1
5 - Bathroom	Door Casing	Brown	Wood	< 0.1
5 - Bathroom	Shelf	Gray	Metal	< 0.1
7- Front Room	Upper Wall	Beige	Gypsum	< 0.1
7- Front Room	Lower Wall	Black	Wood	< 0.1

Lead Paint Testing Results by XRF
22 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
7- Front Room	Chair Rail	Black	Wood	< 0.1
7- Front Room	Baseboard	Black	Wood	< 0.1
7- Front Room	Door	Gray	Metal	< 0.1
7- Front Room	Door Frame	Gray	Metal	< 0.1
7- Front Room	Door Casing	Black	Wood	< 0.1
7- Front Room	Cabinet	Black	Wood	< 0.1
7- Front Room	Window Sill	Brown	Wood	< 0.1
7- Front Room	Decking	Gray	Metal	0.2
7- Front Room	Beam	Gray	Metal	0.4
7 - Hallway	Wall	Beige	Gypsum	< 0.1
7 - Hallway	Wall	Red	Gypsum	< 0.1
7 - Hallway	Door	Black	Wood	< 0.1
7 - Hallway	Door Casing	Black	Wood	< 0.1
7 - Hallway	Door	Black	Metal	< 0.1
7 - Hallway	Door Frame	Black	Metal	0.3
7 - Hallway	Baseboard	Black	Wood	< 0.1
7 - Hallway	Decking	Gray	Metal	0.3
7 - Hallway	Beam	Gray	Metal	< 0.1
7 - Side Room	Upper wall	Beige	Gypsum	< 0.1
7 - Side Room	Lower Wall	Black	Wood	< 0.1
7 - Side Room	Wall	Red	Gypsum	< 0.1
7 - Side Room	Baseboard	Black	Wood	< 0.1
7 - Side Room	Chair Rail	Black	Wood	< 0.1
7 - Side Room	Door	Black	Wood	< 0.1
7 - Side Room	Door Casing	Black	Wood	< 0.1
7 - Bathroom	Upper Wall	Beige	Gypsum	< 0.1
7 - Bathroom	Lower Wall	Black	Wood	< 0.1
7 - Bathroom	Baseboard	Black	Wood	< 0.1
7 - Bathroom	Chair Rail	Black	Wood	0.2
7 - Bathroom	Door	Black	Wood	< 0.1
7 - Bathroom	Door Casing	Black	Wood	< 0.1
7 - Bathroom	Cabinet	Black	Wood	< 0.1
7 - Hall Closet	Wall	Red	Gypsum	< 0.1
7 - Hall Closet	Door	Black	Wood	< 0.1
7 - Hall Closet	Door Casing	Black	Wood	< 0.1
7 - Hall Closet	Shelf	Black	Wood	< 0.1
9 - Front Room	Wall	Beige	Gypsum	< 0.1

Lead Paint Testing Results by XRF
22 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
9 - Front Room	Wall	Gray	Gypsum	< 0.1
9 - Front Room	Column	White	Wood	< 0.1
9 - Front Room	Column	Red	Wood	< 0.1
9 - Front Room	Wall Top	White	Wood	< 0.1
9 - Front Room	Baseboard	Red	Wood	< 0.1
9 - Front Room	Window Sill	White	Wood	< 0.1
9 - Front Room	Window Sash	Brown	Metal	< 0.1
9 - Front Room	Door	Brown	Metal	< 0.1
9 - Front Room	Door Frame	Brown	Metal	< 0.1
9 - Front Room	Cabinet	White	Wood	< 0.1
9 - Front Room	Door	White	Wood	< 0.1
9 - Front Room	Door Casing	Red	Wood	< 0.1
9 - Front Room	Door Jamb	White	Wood	< 0.1
9 - Front Room	Shelf	White	Wood	< 0.1
9 - Front Room	Floor Tile	Gray	Tile	0.2
9 - Front Room	Decking	Gray	Metal	< 0.1
9 - Front Room	Beam	Gray	Metal	< 0.1
9 - Front Room	Wall	Blue	Gypsum	< 0.1
9 - Front Room	Rear Door	Gray	Metal	< 0.1
9 - Front Room	Rear Door Jamb	White	Wood	< 0.1
9 - Side Room	Wall	Gray	Gypsum	< 0.1
9 - Side Room	Door	White	Wood	< 0.1
9 - Side Room	Door Casing	White	Wood	< 0.1
9 - Side Room	Door jamb	White	Wood	< 0.1
9 - Side Room	Baseboard	Red	Wood	< 0.1
9 - Boiler Room	Wall	Gray	Gypsum	< 0.1
9 - Boiler Room	Door	White	Wood	< 0.1
9 - Boiler Room	Door Casing	White	Wood	< 0.1
9 - Boiler Room	Door jamb	White	Wood	< 0.1
9 - Boiler Room	Baseboard	White	Wood	< 0.1
9 - Boiler Room	Decking	Gray	Metal	< 0.1
9 - Boiler Room	Beam	Gray	Metal	< 0.1
9 - Boiler Room	Baseboard	Black	Wood	< 0.1
9 - Bathroom	Wall	Gray	Gypsum	< 0.1
9 - Bathroom	Cabinet	White	Wood	< 0.1
9 - Bathroom	Door	White	Wood	< 0.1
9 - Bathroom	Door Casing	White	Wood	< 0.1

Lead Paint Testing Results by XRF
22 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
9 - Bathroom	Door Jamb	White	Wood	< 0.1
9 - Bathroom	Floor Tile	Gray	Tile	< 0.1
9 - Bathroom	Baseboard	Black	Wood	< 0.1
1-19 Exterior	Window Sash	Brown	Metal	< 0.1
1-19 Exterior	Door	Brown	Metal	< 0.1
1-19 Exterior	Door Frame	Brown	Metal	< 0.1
1-19 Exterior	Column	White	Wood	< 0.1
1-19 Exterior	Overhang	White	Wood	< 0.1
1-19 Exterior	Lintel	White	Metal	< 0.1
1-19 Exterior	CMU	Brown	Metal	< 0.1
1-19 Exterior	Rear Door	Brown	Metal	< 0.1
1-19 Exterior	Rear Door Frame	Brown	Metal	< 0.1

- <0.1 = less than the limit of quantification of the XRF.
- mg/cm^2 = milligrams of lead per square centimeter of sampled surface area.

Appendix G

GREEN
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Appendix G Locations of the Regulated Materials 1 North Broadway Salem, NH		
Location	**Material Description**	**Quantity**
1st Floor		
Unit 1	4’ Fluorescent Tubes	56
	PCB/Non-PCB Containing Ballasts	14
	Exit Sign/Emergency Light Battery	2
Unit 3-5	4’ Fluorescent Tubes	140
	PCB/Non-PCB Containing Ballasts	35
	Exit Sign/Emergency Light Battery	6
Unit 7	Exit Sign/Emergency Light Battery	2
Unit 9	Exit Sign/Emergency Light Battery	2