



EAGLE Environmental, Inc.



Hazardous Building Materials > Industrial Hygiene/IAQ > Environmental Assessments > Laboratory Services & Training

September 9, 2015

Mr. David Holmes
Capital Studio Architects
1379 Main Street
East Hartford, CT 06108

**RE: Environmental Assessment Report
Department of Housing
CDBG-DR – Sandy Disaster Recovery Program
28 Island Circle North
Groton, Connecticut 06340
Application #2106
Eagle Project No. 15-015.10T1**

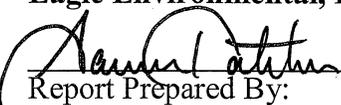
Dear Mr. Holmes:

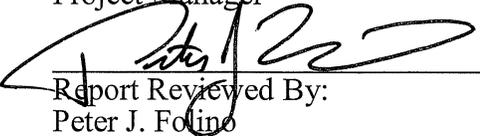
Please find the Environmental Assessment Report conducted at 28 Island Circle North located in Groton, Connecticut (Site). The environmental assessment was performed in support of the planned renovations/repairs to the Site building under the State of Connecticut Department of Housing Community Development Block Grant – Disaster Recovery Program (Program). The assessment focused only on those areas of the building that are scheduled for renovation/repair work with the exception of the lead-based paint hazard screen, which included the interior and exterior of the entire building. The proposed scope of renovation/repair work was provided to Eagle Environmental, Inc. (Eagle) by Capital Studio Architects (CSA).

This assessment and report is intended to satisfy the review process of the National Environmental Policy Act (NEPA) Statutory Checklist Sections 13C (Lead-Based Paint), 13D (Asbestos), 13E (Radon) and 13F (Mold).

Please do not hesitate to contact us if you have any questions regarding the contents of this report.

Sincerely,
Eagle Environmental, Inc.


Report Prepared By:
Aaron Hatcher
Project Manager


Report Reviewed By:
Peter J. Folino
Project Manager

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1. INTRODUCTION

On February 6 and August 28, 2015, Eagle Environmental, Inc. conducted an environmental assessment of portions of the site building located at 28 Island Circle North in Groton, Connecticut. The scope of the environmental assessment included an inspection for asbestos-containing materials, a lead-based paint hazard screen and a visual inspection for microbial contamination.

1.1 Inspection Area Description

The inspection area included those areas of the building that will be impacted by planned renovation work. The areas of inspection were determined by reviewing the planned renovation work provided in CSA's Project Scope dated December 22, 2014. For the purpose of this project the following areas were inspected:

- Exterior facades
- Crawlspace
- Mechanical equipment in car barn

In addition to testing the areas of the building that will be impacted by the renovation work, a lead-based paint hazard screen was performed throughout the site building to comply with federal funding requirements for a residential building receiving Federal funding assistance under a Department of Housing and Urban Development (HUD) administered program.

A complete list of components that were tested may be found in the XRF Lead Inspection Detailed Report.

2. SCOPE OF INSPECTION

2.1 Asbestos Containing Materials

The asbestos inspection was conducted to identify and sample suspect asbestos-containing materials within the areas of proposed renovation or repair work. Although federal regulations requiring asbestos inspection do not pertain to a residential structure containing less than five (5) units, demolition or renovation activities which may disturb asbestos would be unauthorized under the State of Connecticut Department of Public Health (DPH) regulations. Disposal of asbestos containing waste in unauthorized landfills is also prohibited. The inspection was performed to facilitate compliance with these applicable abatement and disposal regulations.

The asbestos inspection was performed by Andrew Carnevale (license #000850) and Thomas R. Neville (license #000905); State of Connecticut licensed Asbestos Inspectors.

2.2 Lead-based Paint

A lead-based paint hazard screen was performed at the site building to comply with the Department of Housing and Urban Development (HUD) Lead Safe Housing Rule (24 CFR 35) for a residential property receiving Federal rehabilitation assistance under a program administered by HUD.

Certain lead-based paint requirements apply to each project depending on the level of Federal Funding allocated. The lead-based paint requirements include the following for each level of funding:

1. Residential property receiving \$5,000 or less per unit (Not Applicable to this Project):
 - a. Conduct lead-based paint testing or presume all painted surfaces contain toxic levels of lead-based paint. If lead-based paint testing confirms that the painted surfaces are not coated with lead-based paint, lead safe work practices and clearances are not required.
 - b. Conduct a risk assessment in each unit receiving Federal funds, in common areas and the exteriors.
 - c. Interim control measures may be utilized throughout the building
 - d. Lead safe work practices are to be utilized during rehabilitation work that will disturb painted surfaces.
 - e. After the completion of any rehabilitation work that has disturbed painted surfaces, clearances are to be performed.
2. Residential property receiving between \$5,000 and \$25,000 per unit:
 - a. Conduct lead-based paint testing or presume all painted surfaces contain toxic levels of lead-based paint. If lead-based paint testing confirms that the painted surfaces are not coated with lead-based paint, lead safe work practices and clearances are not required.
 - b. Lead safe work practices are to be utilized during rehabilitation work that will disturb lead-based painted surfaces.
 - c. Perform interim controls on all lead hazards identified during the lead hazard screen.
 - d. Perform clearance testing following interim control work and renovations.
 - e. Provide notice of lead-hazard reduction within 15 days of completion of work.
3. Residential property receiving greater than \$25,000 per unit:
 - a. **Conduct lead-based paint testing or presume all painted surfaces contain toxic levels of lead-based paint. If lead-based paint testing confirms that the painted surfaces are not coated with lead-based paint, lead safe work practices and clearances are not required.**
 - b. **Conduct a risk assessment in each unit receiving Federal funds, in common areas and the exteriors.**
 - c. **Abate all interior lead-based paint hazards identified during the lead inspection/risk assessment. Interim controls are acceptable on**

exterior surfaces that are not disturbed by rehabilitation and on paint-lead hazards that are below the de minimus levels.

- d. Lead safe work practices are to be utilized during rehabilitation work that will disturb painted surfaces.**
- e. Perform clearance testing following abatement work.**
- f. Provide notice of lead-hazard reduction within 15 days of completion of work.**

The lead-based paint hazard screen and risk assessment was performed by Kristen DeFrance; a State of Connecticut licensed Lead Inspector/Risk Assessor (license # 002206).

In addition to HUD's Lead Safe Housing Rule, the State of Connecticut Department of Public Health Lead Poisoning Prevention and Control regulations apply when a child under the age of six (6) years old lives in the residence at the time of the inspection. The lead hazard screen was performed in accordance with State requirements, where applicable.

2.3 Radon Testing

Radon testing for this program is performed on a case-by-case basis. Building's which are constructed on piers or will be elevated with its lowest level not in contact with the ground are not considered for Radon testing.

Buildings, which are not elevated off the ground, are tested for Radon under this Program. Radon testing is performed to comply with the National Environmental Policy Act (NEPA).

At a minimum, the Indoor Radon Potential Map of Connecticut was reviewed to determine each sites geographic location in respect to indoor Radon potential.

2.4 Mold Inspection

Eagle performed a visual inspection for the presence of suspect mold within the inspection areas. The inspection included an investigation for signs of visible microbial growth including discoloring of building materials, mal odors and water intrusion that may inhibit microbial growth. The inspection was visual in nature and did not include any sampling or destructive investigations behind rigid walls or ceilings.

3. INSPECTION PROTOCOLS

3.1 Asbestos Containing Materials

3.1.1 Inspection

The asbestos-containing materials (ACM) inspection included the accessible interior and exterior portions of the building that will potentially be impacted by the proposed renovation/repair work. The inspection did not include areas outside of the proposed renovation/repair work areas.

Semi-destructive testing techniques were utilized during the inspection process. This included removing small pieces of suspect materials for analysis (bulk sampling). Only those building materials that will be impacted by the proposed renovation/repair work were sampled. Wood, glass, metal and fiberglass are not defined as suspect materials and are not sampled.

During the inspection, suspect materials are located, sampled, quantified and the friability of the material is determined. Friable materials are those materials that hand pressure can crumble, pulverize or reduce to powder when dry. An estimated quantity of identified ACM is provided for positive materials only. The materials are quantified in linear or square feet, depending on the nature of the material.

3.1.2 Bulk Sampling

During the sampling process, suspect ACM is separated into three (3) USEPA categories. These categories are: Thermal System Insulation (TSI), Surfacing Materials (SURF), and Miscellaneous materials (MISC). TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe covering, boiler insulation, duct wrap, and mudpack fitting cement. Surfacing ACM includes all ACM that is sprayed, troweled or otherwise applied to an existing surface. These applications are most commonly used in fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tile.

Bulk sampling was performed in a random method. Bulk sampling methods and number of samples collected meets or exceeds the USEPA requirements.

3.1.3 Bulk Sample Analysis

The samples of the suspect asbestos containing materials were sent to a State of Connecticut Department of Public Health (DPH) approved laboratory for analysis by Polarized Light Microscopy (PLM). PLM is the USEPA accepted method of analysis for identification of asbestos in bulk matrixes. Samples are collected individually or in sets. When sets of samples are collected, each set is systematically analyzed until one sample is determined to contain asbestos. Upon the determination of the presence of asbestos in one sample in the set, analysis of the remaining samples in the set is discontinued. If no asbestos is observed during analysis of the set of samples, the suspect material is determined to be negative for asbestos content.

Sample analysis results are reported in percentage of asbestos and non-asbestos components. The USEPA defines any material that contains greater than one percent asbestos, utilizing PLM, as being an asbestos-containing material (ACM). Suspect materials containing greater than one percent (1%) asbestos utilizing the PLM Point Count Method and the NOB TEM method are also considered to be asbestos-containing. Materials determined to contain greater than one percent (1%) asbestos is regulated by the USEPA, the State of Connecticut Department of Public Health and Department of Energy and Environmental Protection and the United States Department of Labor. Sample results indicating "no asbestos detected" (NAD) are specified as non-asbestos containing materials. Samples results indicating "Did Not Analyze" (DNA) are not analyzed due to the stop on first positive request to the laboratory.

3.1.3.1 Friable ACM Analysis

Certain samples of friable materials shown to contain less than 10% asbestos are analyzed further by the "Point Count Method". This procedure is recommended by the United States Environmental Protection Agency to confirm friable bulk samples shown to have less than 10% asbestos by PLM to be definitively negative or positive for asbestos. This method is accepted as providing statistically reliable results when analyzing bulk samples with very low asbestos concentrations. Friable materials containing "Trace" or "less than one percent (1%)" asbestos must be analyzed by the PLM Point Count Method. No samples were further analyzed by the PLM Point Count Method for 28 Island Circle North in Groton, Connecticut.

3.1.3.2 Non Friable ACM Analysis

Certain samples of organically bound non-friable materials shown to contain "less than 1% asbestos", "TRACE" or "NAD" are recommended for analyses by the "NOB TEM ELAP 198.4 Method". This procedure is recommended by the United States Environmental Protection Agency to further evaluate non-friable organically bound materials for asbestos. Suspect materials confirmed by NOB TEM to be "less than 1% asbestos", "TRACE" or "NAD" are considered non-asbestos containing. No samples were further analyzed by the NOB TEM Method for 28 Island Circle North in Groton, Connecticut.

3.2 Lead-based Paint

3.2.1 Lead-Based Paint Inspection

The lead-based paint hazard screen was performed utilizing an X-Ray Fluorescence (XRF) Radiation Monitoring Device (RMD) Lead Paint Analyzer (LPA 1), serial number 1509 throughout the building. The Lead-Based Paint Inspection was performed by Kristen DeFrance, State of Connecticut licensed Lead Inspector/Risk Assessor (license #002206) and Thomas R. Neville, State of Connecticut licensed Lead Inspector (license #002219).

Due to the level of proposed Federal Funding for this project (exceeding \$25,000 per unit), the lead-based paint hazard screen included testing surfaces where defective paint or surface coatings were identified. A visual inspection was performed to evaluate the condition of surface coating associated with the building. Where surface coatings were defective (peeling, chipping, flaking, etc.), paint testing was performed. Component and surface locations are identified by side designations represented by the letters "A", "B", "C", and "D". The "A" side is considered the front of the building with the "B", "C", and "D" sides following in a clockwise order.

The data is presented on computer generated Lead Inspection Reports contained in Appendix 4. The Summary Report provides an inventory of each surface coating that contains lead at or above 1.0 mg/cm². The Detailed Report is an inventory of each tested surface on a room-by-room basis.

For the purpose of this report, lead-based paint is defined as surface coatings that contain ≥ 1.0 mg/cm² of lead by XRF.

3.2.2 Risk Assessment

The visual assessment is conducted to locate potential lead based paint hazards and to evaluate the magnitude of the hazard. The visual assessment identifies deteriorated painted surfaces, areas of visible dust accumulation, areas of bare soil, the presence of friction and impact surfaces, and the presence of painted surfaces on which it is possible for a child under six (6) years old to mouth ("chewable surfaces"). The information gathered during the visual assessment is used to identify areas where defective paint is present and to determine where potential dust and soil samples are to be collected and preliminarily evaluate exposure pathways to lead hazards.

3.3 Radon Testing

The Site building is proposed to be elevated. The lowest level of the building will not be in contact with the ground; therefore radon testing was not performed for this site building at the time of inspection.

3.4 Mold Inspection

Eagle Environmental, Inc. performed a visual inspection within the limits of the inspection area for potential microbial growth. The visual inspection was performed to evaluate building materials for signs of water damage and suspect microbial growth. Building materials such as gypsum board, cellulose ceiling tiles, paper pipe coverings or duct coverings and heating, ventilation and air conditioning components were visually assessed. Only visible accessible materials were inspected within the proposed areas of renovation/repair.

Discoloration and decay of the aforementioned building materials may signify mold growth. Water damage or damp conditions may also signify suitable conditions for mold growth.

Suspect mold growth or conditions that may sustain mold growth were documented during the inspection process. In general, the location, color of suspect growth and estimated quantity of impacted building materials were recorded during the inspection process.

Eagle used an Extech Instruments Model MO290 Moisture/Humidity Meter to measure the relative moisture content of accessible representative building materials that may have been impacted by water during the storm. A "dry standard" for each component was determined by averaging the moisture measurements for materials in un-impacted areas. The "dry standard" was used as a baseline comparison to determine if the materials were wet. Moisture measurements were recorded on the Mold Moisture Reading Form.

4. INSPECTION RESULTS

4.1 Asbestos Containing Materials

During the course of the building inspection twenty-nine (29) bulk samples of suspect ACM were collected and twenty-seven (27) samples were analyzed by PLM based on the “stop on first positive” request to the laboratory.

The following materials were confirmed to be ACM:

- Exterior window casing caulk
- White caulk at chimney/siding seam

The summaries of asbestos and non-asbestos materials are presented in Tables I and II respectively. The asbestos analysis laboratory reports are provided in Appendix 2.

Any suspect material not specifically identified in this report as non-ACM should be assumed to contain asbestos unless sample results prove otherwise.

4.2 Lead-based Paint

4.2.1 Lead-Based Paint Inspection Results

A copy of this lead-based paint hazard screen report must be provided to residents within fifteen (15) days of the evaluation. A total of seventy-seven (77) XRF readings were collected during the initial lead-hazard screen of the building. Eagle returned to the site to perform additional testing on items that were not accessible during the initial inspection. An additional thirty-four (34) readings collected bringing the total number of reading to one hundred eleven (111) with eighteen (18) readings found to contain toxic levels of lead-based paint.

The general inventory of surfaces containing toxic levels lead-based paint include the following:

- Exterior rake boards
- The wood window systems
- The “A” façade entry door trim components
- Exterior window casings and sills

The identified lead-based paint hazards will not affect the Architect’s proposed scope of work; however all of the identified hazards must be addressed as part of this project.

A complete inventory of tested building materials is presented in Detailed Reports contained Appendix 4.

4.2.2 Risk Assessment

The risk assessment visual inspection combined with XRF testing of the interior and exterior revealed the potential for lead exposure where lead-based paint was assessed to be in “poor” (defective) condition. Paint which is determined to be in “poor” (defective) condition is identified by having characteristics including, but

not limited to, chipping, peeling, flaking, and cracking. Lead-based paint which is identified as being in "poor" (defective) condition is indicated with the designation "P" in the XRF Lead Inspection Summary Report under the column heading "Paint Condition."

Within the interior as well as the exterior of the building, lead-based paint in "poor" (defective) condition was identified on the majority of the identified components. The lead-based paint in "poor" (defective) condition is due to contact damage and friction/impact.

4.2.3 Dust Hazards

A total of ten (10) dust wipes were collected from various locations throughout the building. No dust-lead hazards were identified at the sampled locations at the time of inspection. Eagle Environmental, Inc. recommends that the resident continues to follow their regular cleaning regimen.

4.2.4 Soil Hazards

The grounds were unable to be evaluated at the time of inspection as they were covered with snow. The ground covers should be evaluated when weather permits and if required, samples will be collected.

4.2.5 Regulatory Requirements

No children under the age of six (6) years old resided at this site building at the time of the inspection. However, the Federal funding for this project is anticipated to exceed \$25,000.00 per unit. All interior lead-based paint hazards must be controlled utilizing abatement while the exterior lead-based paint hazards may be controlled utilizing interim controls (temporary measures). This residence is considered target housing (housing constructed prior to 1978) by the USEPA. All lead-hazard remediation work shall be performed in compliance with the USEPA Renovation, Remodeling and Painting (RRP) Rule as prescribed by 40 CFR Part 745.80 Subpart E. Including USEPA RRP Firm Certification, USEPA RRP Renovator Certification, Disclosure and Notification, Placement of Warning Signs, Lead-Safe Work Practice, Cleaning and Post Remediation Lead Dust Clearance by an approved USEPA method.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint ($>0.0 \text{ mg/cm}^2 \pm 0.3 \text{ mg/cm}^2$ by XRF or $>0.01 \%$ by AAS) requires task specific exposure monitoring. Contractors performing lead disturbing tasks on this project must comply with the OSHA Lead in Construction Standard.

4.3 Radon

Radon is measured in Picocuries of radon per Liter of air or pCi/L. The USEPA has set a national action level of 4 pCi/L. Ambient concentrations of radon are approximately 0.4 pCi/L of radon for outside air. The USEPA recommends that short term tests that have results of 4 pCi/L or greater be confirmed with a second short-term test. Two short-term

tests with results equal to or greater than 4 pCi/L require that radon mitigation be performed.

A review of the Indoor Radon Potential Map of Connecticut indicates a Radon Potential Rating of Low - Moderate (16%). The Radon Potential Rating indicates the percentage of tested homes in this geographical area with basement air radon greater than or equal to 4.0 pCi/l (USEPA Action Level for Radon)

Radon testing was not performed at this Site since the building is proposed to be elevated and the lowest level of the building will not be in contact with the ground.

4.4 Mold

It was Eagle's understanding that the buildings crawlspace underwent extensive flooding during the Hurricane Sandy Storm; however based from the inspectors visual observations and generated moisture testing data within the crawlspace, there was no evident water staining, microbial spore growth or high concentrations of moisture within identified. The ceiling joist and decking within the crawlspace was found to be "Dry" meaning the moisture content on the tested components less than the standard threshold.

In addition to the crawlspace observation Eagle evaluated other areas of the building that may have been impacted and suffered storm related damage. These areas included the Living Room, Bedroom II and the Attic. Within the three (3) locations the inspector observed water damage/staining around the window openings within the Attic and microbial spore growth within Bedroom II closet. It is not clear if these observed areas were direct effects of the storm.

The mold inspection forms are provided in Appendix 7.

5. COST ESTIMATES

The cost estimates include only the abatement or remediation work necessary to support the renovation/repair work. Other regulated or hazardous materials may be present and were not inspected for under this scope of services and are not included within the estimate.

This is a budgetary opinion of cost that is expected to be within -15 to + 30 percent of the actual cost. Eagle Environmental, Inc. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor or Contractors' methods of determining prices, or over competitive bidding or market conditions. Eagle Environmental, Inc.'s opinion of probable cost of abatement are made on the basis of Eagle Environmental, Inc.'s experience and qualifications and represent Eagle Environmental, Inc.'s judgment as an experienced and qualified consultant familiar with the abatement industry; but Eagle Environmental, Inc. cannot and does not guarantee that proposals, bids or actual Total Project or Abatement Cost will not vary from opinions of probable cost prepared by Eagle Environmental, Inc. If, prior to the bidding or negotiating phase, the Owner wishes greater assurance as to Total Project or Abatement Cost, the Owner shall employ an independent cost estimator.

The cost estimates are provided in Appendix 8.

TABLE I

ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE

TABLE I
ASBESTOS CONTAINING MATERIALS
SUMMARY TABLE
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS				ESTIMATED QUANTITY	F/NF
				PLM	PLM PC	TEM NOB	ACM		
Façade A, B, C, D	Window caulk between façade and casing	2-06-AC-18	MISC	4% Chrys				120 LF	NF
		2-06-AC-19		DNA			YES		
Chimney	White caulk	8-28-TN-01	MISC	2% Anth				NQ	NF
		8-28-TN-02		DNA			YES		
KEY									
DNA = DID NOT ANALYZE									
NAD = NO ASBESTOS DETECTED									
F = FRIABLE									
NF = NON-FRIABLE									
TSI = THERMAL SYSTEMS INSULATION									
SURF = SURFACING MATERIAL									
MISC = MISCELLANEOUS MATERIAL									
ANALYTICAL METHODS									
PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT									
TEM NOB = NEW YORK ELAP 198.4 METHOD									
PLM = EPA 600/R-93/116									
PS = Previously Sampled									
EA = Each									
NQ = Not Quantified									
BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION									

TABLE II

NON ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE

TABLE II
NON - ASBESTOS CONTAINING MATERIALS
SUMMARY TABLE
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM PC	TEM NOB
Crawl Space	Cementitious wall panel	2-6-AC-01	MISC	NAD		
		2-6-AC-02		NAD		
		2-6-AC-03		NAD		
		2-6-AC-04		NAD		
Living Room	Textured ceiling paint	2-6-AC-05	SURF	NAD		
		2-6-AC-06		NAD		
		2-6-AC-07		NAD		
Hallway	Sheetrock	2-6-AC-08	MISC	NAD		
	Joint compound	2-6-AC-09	MISC	NAD		
Attic	Sheetrock/joint compound	2-6-AC-10	MISC	NAD		
		2-6-AC-11		NAD		
		2-6-AC-12		NAD		
Garage	Batting insulation paper	2-6-AC-13	MISC	NAD		
		2-6-AC-14		NAD		
Façade A, B, C, D	Window glazing compound on double hung windows	2-6-AC-15	MISC	NAD		
		2-6-AC-16		NAD		
Garage Furnace	Cement at firebox	2-6-AC-17	MISC	NAD		
		8-28-TN-03		NAD		
Garage Furnace	Cement at breaching	8-28-TN-04	MISC	NAD		
		8-28-TN-05		NAD		
House Exterior	Grey window caulk	8-28-TN-06	MISC	NAD		
		8-28-TN-07		NAD		
		8-28-TN-08		NAD		
KEY				ANALYTICAL METHODS		
DNA = DID NOT ANALYZE	SF = SQUARE FEET			PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
NAD=NO ASBESTOS DETECTED	LF = LINEAR FEET			TEM NOB = NEW YORK EL-AP 198.4 METHOD		
F = FRIABLE	Chrys = Chrysotile			PLM = EPA 600/R-93/116		
NF = NON-FRIABLE	Amos = Amosite			PS = Previously Sampled		
TSI = THERMAL SYSTEMS INSULATION	Anth = Anthophyllite			EA = Each		
SURF = SURFACING MATERIAL	Trem = Tremolite					
MISC = MISCELLANEOUS MATERIAL	Croc = Crocidolite					
BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION						

APPENDIX 1
FLOOR PLANS AND PHOTOLOG

CAPITAL STUDIO ARCHITECTS

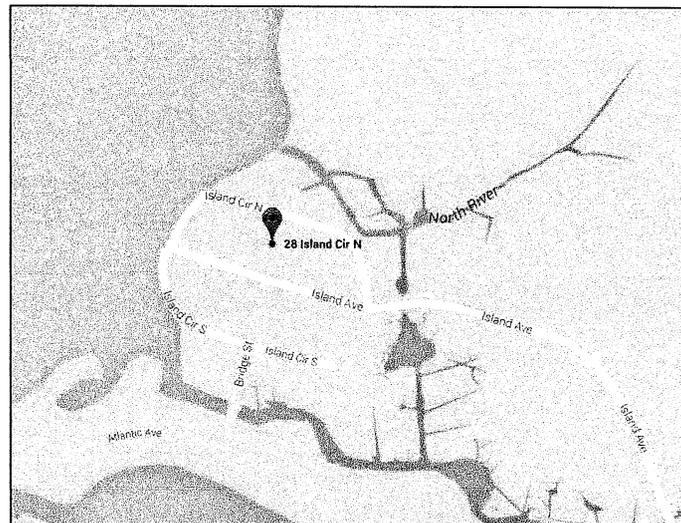
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT

EAGLE PROJECT NUMBER: 15-015.10T1

INDEX OF DRAWINGS

SP-1 SITE PLAN
FP-1 MAIN FLOOR PLAN
FP-2 ATTIC PLAN

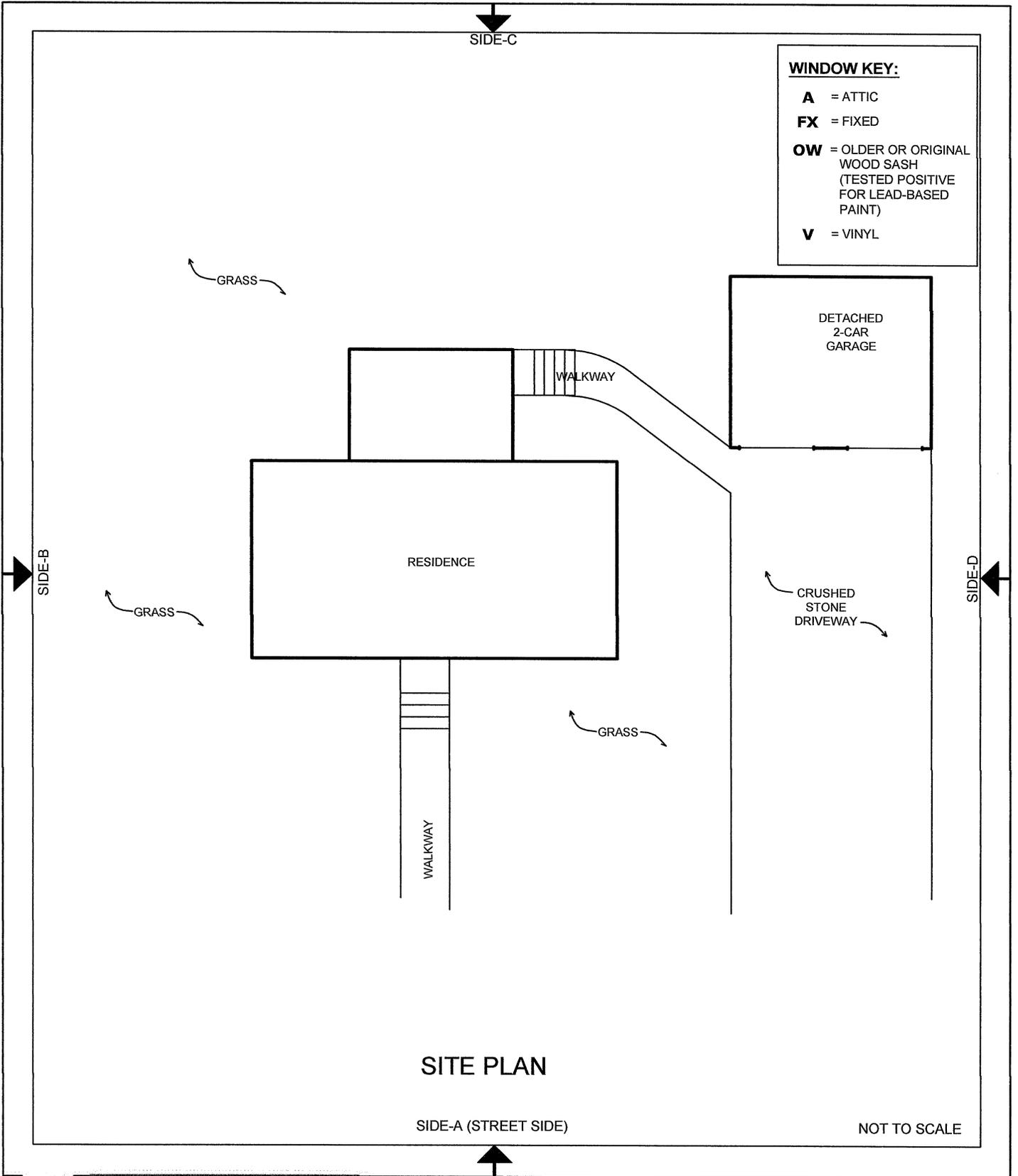
LOCATION MAP



FEBRUARY 10, 2015



8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257



EAGLE
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

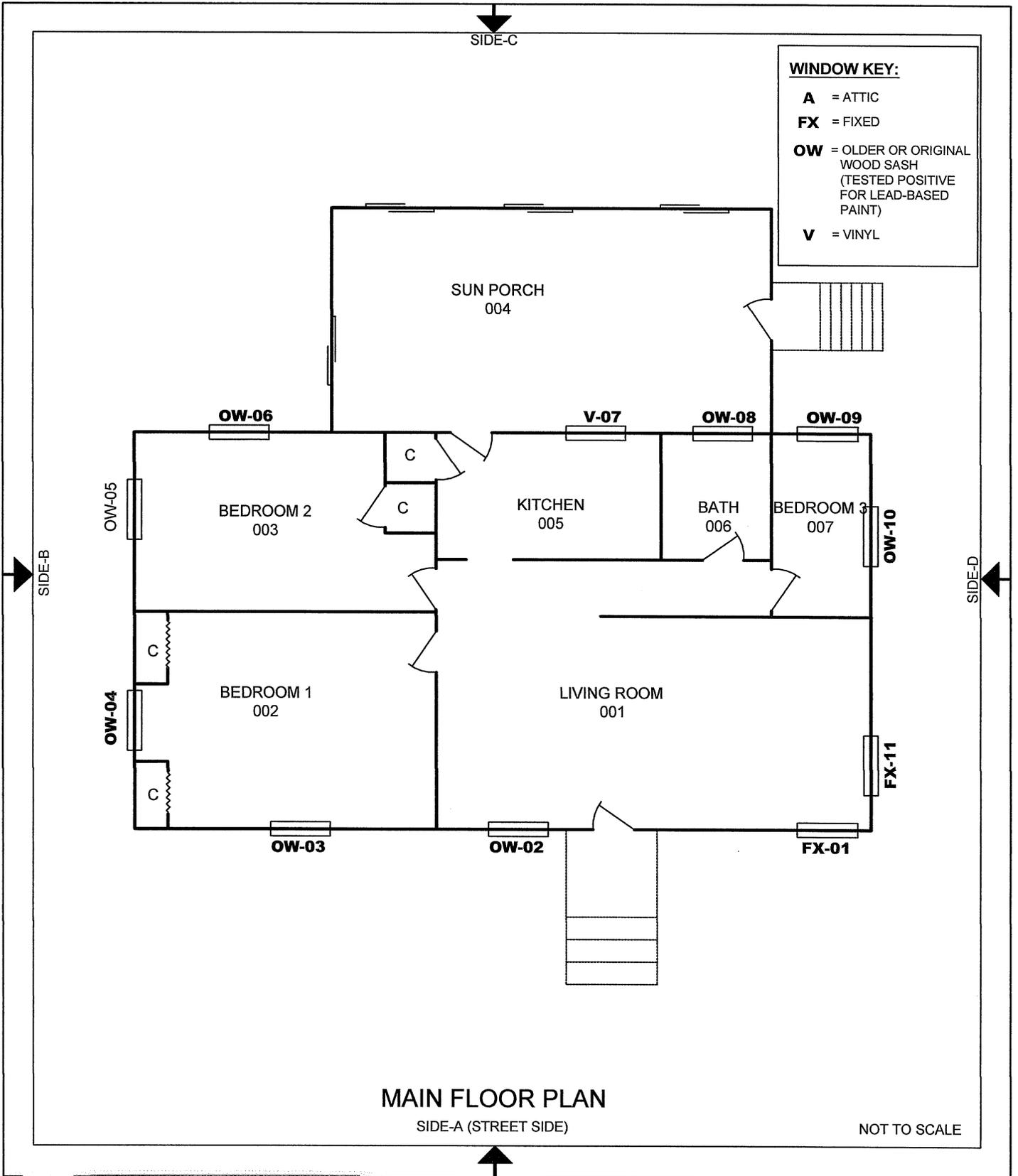
SHEET NO.

SP-1

SHEET 1 OF 3

DATE: 08/25/2015
PROJECT NO.: 15-015.10T1
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL ASSESSMENT
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT



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8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

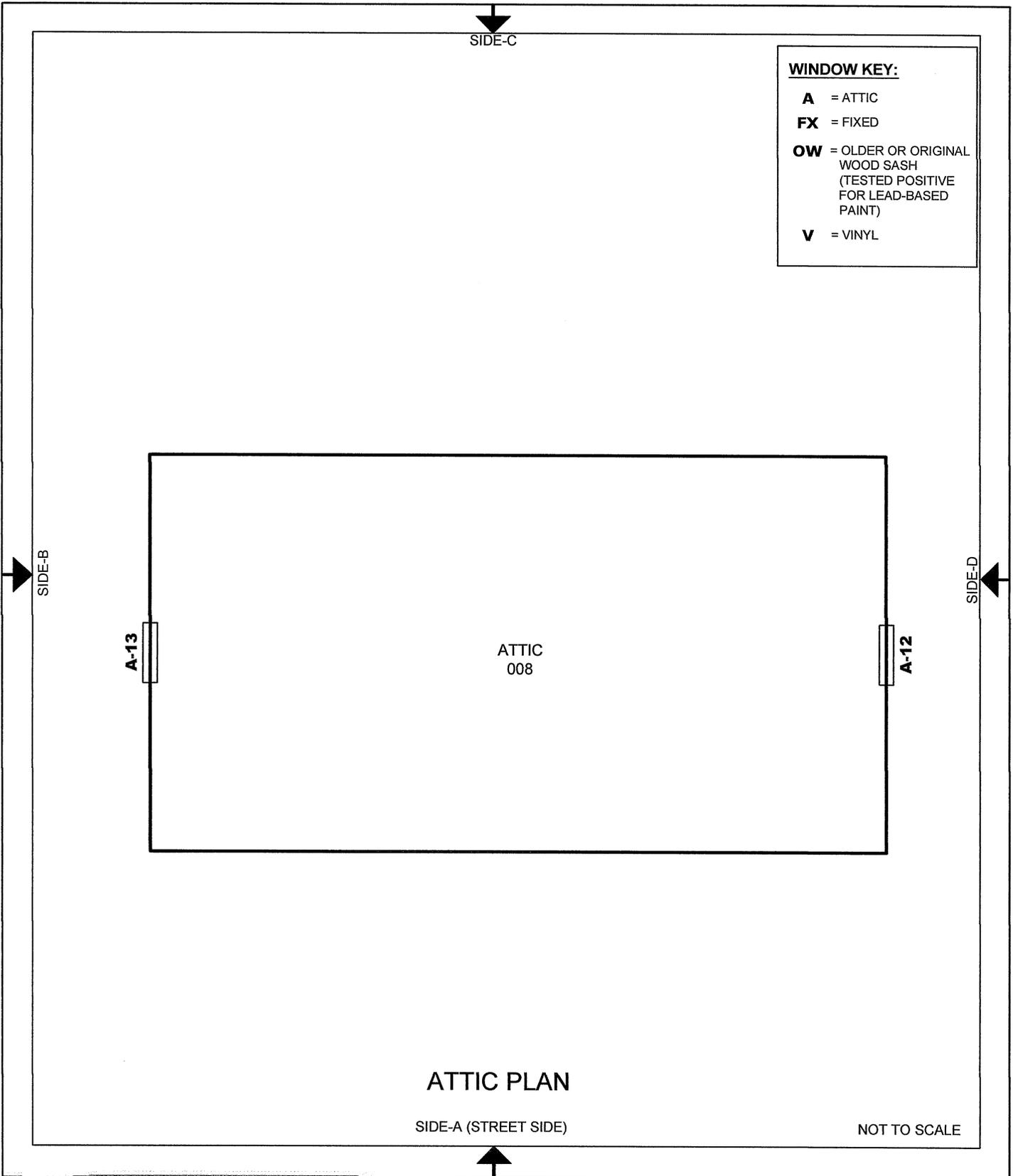
DATE: 08/25/2015
PROJECT NO.: 15-015.10T1
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL ASSESSMENT
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT

SHEET NO.

FP-1

SHEET 2 OF 3



WINDOW KEY:

- A** = ATTIC
- FX** = FIXED
- OW** = OLDER OR ORIGINAL WOOD SASH (TESTED POSITIVE FOR LEAD-BASED PAINT)
- V** = VINYL

ATTIC PLAN

SIDE-A (STREET SIDE)

NOT TO SCALE



EAGLE
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

DATE: 08/25/2015
PROJECT NO.: 15-015.10T1
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL ASSESSMENT
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT

SHEET NO.

FP-2

SHEET 3 OF 3

EAGLE ENVIRONMENTAL, INC
8 SOUTH MAIN STREET, TERRYVILLE, CT 06786

Project No.: 15-015.10T1

Project Name: 28 Island Circle North, Groton

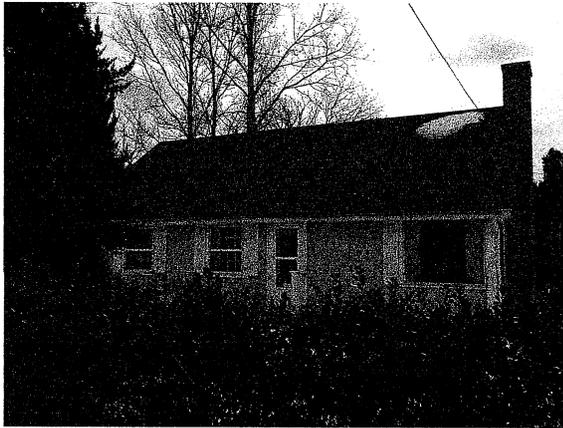


Photo #1:

Façade A

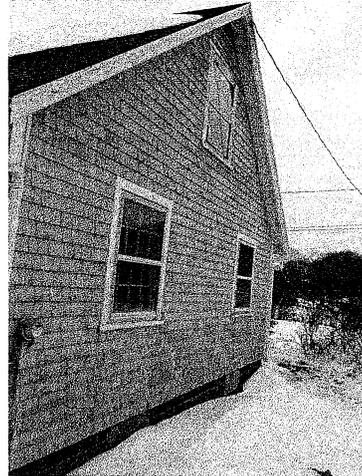


Photo #2:

Façade B



Photo #3:

Façade C

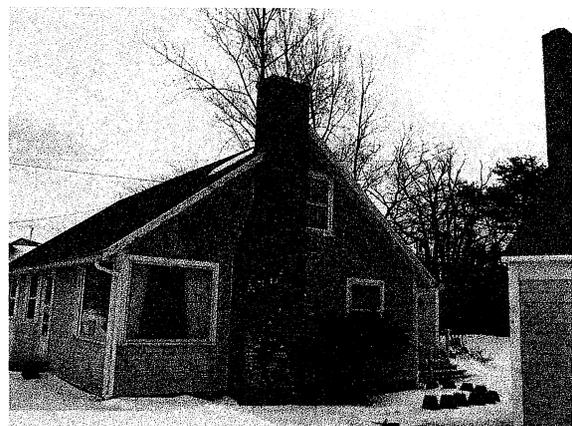


Photo #4:

Façade D

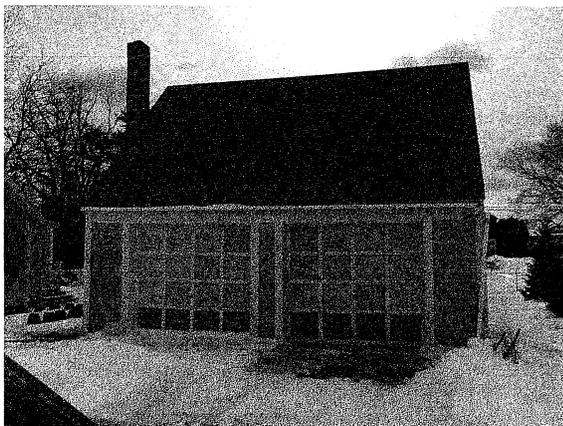


Photo #5:

Garage

APPENDIX 2

ASBESTOS BULK SAMPLE LABORATORY REPORTS



EMSL - MA 7 Constitution Way, Ste 107 Woburn, MA 01801 (781) 933-8411 (781) 933-8412 Fax	EMSL - CT 29 N. Plains Hwy, Unit 4 Wallingford, CT 06492 (203) 284-5948 (203) 284-5978 Fax	EMSL - NY 307 West 38 th Street New York, NY 10018 (866) 448-3675 (212) 290-0058 Fax	EMSL - NJ 107 Haddon Avenue Westmont, NJ 08108 (800) 220-3675 (856) 858-4960 Fax
---	---	--	---

Your Name: Brandy LeBlanc *031503495* **Project Manager:** PF

Company: Eagle Environmental, Inc.

Street: 8 South Main Street, Suite 3

City/State/Zip: Terryville, CT 06786

Phone: 860-589-8257 ext. 108 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com; dwymne@eagleenviro.com; rsioch@eagleenviro.com

Project Name: CSA **Project #:** 15-015.10T1

Project Location: 28 Island Circle N, Groton **Project State (US):** CT

TURNAROUND TIME

3 Hours
 6 Hours
 24 Hours
 48 Hours
 72 Hours
 4 Days
 5 Days
 6-10 Days

SAMPLE MATRIX

Air
 Bulk
 Soil
 Wipe
 Micro-Vac
 Drinking Water
 Wastewater
 Chips
 Other

ASBESTOS ANALYSIS

PCM - Air

NIOSH 7400 (A) Issue 2: August 1994

OSHA w/TWA

TEM AIR

AHERA 40 CFR, Part 763 Subpart E

NIOSH 7402 Issue 2

EPA Level II

PCM - Bulk

EPA 600/R-93/116

NY Stratified Point Count

California Air Resource Board (CARB) 435

NIOSH 9002

PLM NOB (Gravimetric) NYS 198.1

EPA Point Count (400 Points)

EPA Point Count (1,000 Points)

Standard Addition Point Count

SOILS

EPA Protocol Qualitative

EPA Protocol Quantitative

EMSL MSD 9000 Method fibers/gram

Superfund EPA 540-R097-028 (dust generation)

TEM BULK

Drop Mount (Qualitative)

Chatfield SOP-1988-02

TEM NOB (Gravimetric) NY 198.4

TEM MICROVAC

ASTM D 5755-95 (Quantitative)

TEM WIPE

ASTM D-6480-99

Qualitative

TEM WATER

EPA 100.1

EPA 100.2

NYS 198.2

Other:

LEAD ANALYSIS

Flame Atomic Absorption

Wipe, SW846-7420 ASTM non ASTM

Soil, SW846-7420

Air, NIOSH 7082

Chips, SW846-7420 or AOAC 5.009 (974.02)

Wastewater, SW 846-7420

TCLP LEAD SW846-1311/7420

Graphite Furnace Atomic Absorption

Air, NIOSH 7105

Wastewater, SW846-7421

Soil, SW846-7421

Drinking Water, EPA 239.2

ICP - Inductively Coupled Plasma

Wipe, SW846-6010 ASTM non ASTM

Soil, SW846-6010

Air, NIOSH 7300

MATERIALS ANALYSIS

Full Particle Identification

Optical Particle Identification

Dust Mites and Insect Fragments

Particle Size & Distribution

Product Comparison

Paint Characterization

Failure Analysis

Corrosion Analysis

Glove Box Containment Study

Petrographic Examination of Concrete

Portland Cement in Workplace Atmospheres (OSHA ID-143)

Man Made Vitrous Fibers - MMVF's

Synthetic Fiber Identification

Other:

MICROBIAL ANALYSIS

Air Samples

Mold & Fungi by Air O Cell

Mold & Fungi by Agar Plate count & id

Bacterial Count and Gram Stain

Bacterial Count and Identification

Water Samples

Total Coliforms, Fecal Coliforms

Escherichia Coli, Fecal Streptococcus

Legionella

Salmonella

Giardia and Cryptosporidium

Wipe and Bulk Samples

Mold & Fungi - Direct Examination

Mold & Fungi - (Culture) follow up & direct examination if necessary

Mold & Fungi - Culture (Count & ID)

Mold & Fungi - Culture (Count only)

Bacterial Count & Gram Stain

Bacterial Count & Identification (3 most prominent types)

Other:

IAQ ANALYSIS

Nuisance Dust (NIOSH 0500 & 0600)

Airborne Dust (PM10, TSP)

Silica Analysis by XRD Niosh 7500

HVAC Efficiency

Carbon Black

Airborne Oil Mist

Other:

EMSL MANHATTAN LAB
 RECEIVED
 2/7/15 11:27

Additional Information/Comments/Instructions: ****PLEASE STOP ON 1ST POSITIVE WITHIN SETS**

Client Sample # (S)	02-06-AC-01	02-06-AC-21	TOTAL SAMPLE #
Relinquished:	ANDREW CARNEVALE <i>[Signature]</i>	Date: 2/6/15	Time: PM
Received:	EMILY FOLEY <i>[Signature]</i>	Date: 2/6/15	Time: PM
Relinquished:	EMILY FOLEY <i>[Signature]</i>	Date: 2/6/15	Time: PM
Received:	<i>[Signature]</i>	Date: 2/7/15	Time: 11:27am

20/21

[Signature]
2/8/15 12:17pm

DL 2/8/15 2:36AM
 FX 7788 5755 8719

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018
 Phone/Fax: (212) 290-0051 / (212) 290-0058
<http://www.EMSL.com> manhattanlab@emsl.com

EMSL Order: 031503495
 CustomerID: EEVM50
 CustomerPO:
 ProjectID:

Attn: **Brandy LeBlanc**
Eagle Environmental, Inc. - CT
8 South Main Street
Suite 3
Terryville, CT 06786

Phone: (860) 589-8257
 Fax: (860) 585-7034
 Received: 02/07/15 11:27 AM
 Analysis Date: 2/8/2015
 Collected: 2/6/2015

Project: 15-015.10T1/ CSA/ 28 ISLAND CIRCLE N/ GROTON, CT

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
02-06-AC-01 031503495-0001	CEMENTITIOUS WALL PANEL - CRAWLSPACE	Gray Non-Fibrous Homogeneous		52% Quartz 3% Mica 45% Non-fibrous (other)	None Detected
02-06-AC-02 031503495-0002	CEMENTITIOUS WALL PANEL - CRAWLSPACE	Gray Non-Fibrous Homogeneous		60% Quartz 20% Ca Carbonate 20% Non-fibrous (other)	None Detected
02-06-AC-03 031503495-0003	BLOCK MORTAR - CRAWLSPACE	Tan Non-Fibrous Homogeneous		60% Quartz 40% Non-fibrous (other)	None Detected
02-06-AC-04 031503495-0004	BLOCK MORTAR - CRAWLSPACE	White Non-Fibrous Homogeneous		50% Quartz 24% Ca Carbonate 26% Non-fibrous (other)	None Detected
02-06-AC-05 031503495-0005	TEXTURED CEILING PAINT - LIVING ROOM	White Non-Fibrous Homogeneous		3% Mica 45% Ca Carbonate 52% Non-fibrous (other)	None Detected
02-06-AC-06 031503495-0006	TEXTURED CEILING PAINT - LIVING ROOM	White Non-Fibrous Homogeneous		2% Mica 55% Ca Carbonate 43% Non-fibrous (other)	None Detected
02-06-AC-07 031503495-0007	TEXTURED CEILING PAINT - LIVING ROOM	White Non-Fibrous Homogeneous		8% Mica 20% Ca Carbonate 72% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis					
02-06-AC-08 031503495-0008	SHEETROCK - HALLWAY	Brown/Gray Fibrous Homogeneous	12% Cellulose	60% Gypsum 28% Non-fibrous (other)	None Detected

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. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/08/2015 04:50:45

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018
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<http://www.EMSL.com> manhattanlab@emsl.com

EMSL Order: 031503495
 CustomerID: EEVM50
 CustomerPO:
 ProjectID:

Attn: **Brandy LeBlanc**
Eagle Environmental, Inc. - CT
8 South Main Street
Suite 3
Terryville, CT 06786

Phone: (860) 589-8257
 Fax: (860) 585-7034
 Received: 02/07/15 11:27 AM
 Analysis Date: 2/8/2015
 Collected: 2/6/2015

Project: 15-015.10T1/ CSA/ 28 ISLAND CIRCLE N/ GROTON, CT

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
02-06-AC-09 031503495-0009	SHEETROCK - HALLWAY	Brown/Gray Fibrous Homogeneous	15% Cellulose	57% Gypsum 28% Non-fibrous (other)	None Detected
02-06-AC-10 031503495-0010	JOINT COMPOUND - HALLWAY	Tan/Pink Non-Fibrous Homogeneous	15% Cellulose	10% Ca Carbonate 75% Non-fibrous (other)	None Detected
Sample is mostly paint Result includes a small amount of inseparable attached material					
02-06-AC-11 031503495-0011	JOINT COMPOUND - HALLWAY	White/Pink Non-Fibrous Homogeneous	8% Cellulose	35% Ca Carbonate 57% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis Sample consist mostly of paint.					
02-06-AC-12 031503495-0012	SHEETROCK/JOINT COMPOUND COMPOSITE - HALLWAY	Brown/Gray/Pink Fibrous Heterogeneous	20% Cellulose	55% Gypsum 25% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis					
02-06-AC-13 031503495-0013	SHEETROCK/JOINT COMPOUND COMPOSITE - HALLWAY	Gray Non-Fibrous Homogeneous	18% Cellulose	60% Gypsum 22% Non-fibrous (other)	None Detected
02-06-AC-14 031503495-0014	BATTING INSULATION PAPER - ATTIC	Brown/Black/Yellow Fibrous Homogeneous	58% Cellulose 7% Glass	35% Non-fibrous (other)	None Detected
Result includes a small amount of inseparable attached material					
02-06-AC-15 031503495-0015	BATTING INSULATION PAPER - ATTIC	Gray/White Non-Fibrous Homogeneous	30% Fibrous (other)	45% Gypsum 25% Non-fibrous (other)	None Detected
02-06-AC-16 031503495-0016	FLUE CEMENT - GARAGE	Gray Non-Fibrous Homogeneous	45% Wollastonite	22% Gypsum 33% Non-fibrous (other)	None Detected

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/08/2015 04:50:45

**EMSL Analytical, Inc.**

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

EMSL Order: 031503495

CustomerID: EEVM50

CustomerPO:

ProjectID:

Attn: **Brandy LeBlanc**
Eagle Environmental, Inc. - CT
8 South Main Street
Suite 3
Terryville, CT 06786

Phone: (860) 589-8257
 Fax: (860) 585-7034
 Received: 02/07/15 11:27 AM
 Analysis Date: 2/8/2015
 Collected: 2/6/2015

Project: 15-015.10T1/ CSA/ 28 ISLAND CIRCLE N/ GROTON, CT

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
02-06-AC-17 031503495-0017	FLUE CEMENT - GARAGE	Tan/White Non-Fibrous Homogeneous	50% Wollastonite	25% Ca Carbonate 25% Non-fibrous (other)	None Detected
02-06-AC-18 031503495-0018	WINDOW CAULK - FAÇADE A	Gray/White Non-Fibrous Homogeneous		18% Ca Carbonate 78% Non-fibrous (other)	4% Chrysotile
Inseparable paint / coating layer included in analysis					
02-06-AC-19 031503495-0019	WINDOW CAULK - FAÇADE A				Stop Positive (Not Analyzed)
02-06-AC-20 031503495-0020	WINDOW GLAZING COMPOUND ON DOUBLE HUNG WINDOWS - FAÇADE C	Tan Non-Fibrous Homogeneous		10% Quartz 2% Mica 20% Ca Carbonate 68% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis					
02-06-AC-21 031503495-0021	WINDOW GLAZING COMPOUND ON DOUBLE HUNG WINDOWS - FAÇADE C	Tan Non-Fibrous Homogeneous		8% Quartz 2% Mica 30% Ca Carbonate 60% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis					

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/08/2015 04:50:45



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

EMSL Order: 031503495
CustomerID: EEVM50
CustomerPO:
ProjectID:

Attn: **Brandy LeBlanc**
Eagle Environmental, Inc. - CT
8 South Main Street
Suite 3
Terryville, CT 06786

Phone: (860) 589-8257
Fax: (860) 585-7034
Received: 02/07/15 11:27 AM
Analysis Date: 2/8/2015
Collected: 2/6/2015

Project: 15-015.10T1/ CSA/ 28 ISLAND CIRCLE N/ GROTON, CT

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date:: 2/7/2015 Sample Receipt Time: 11:27 AM
Analysis Completed Date: 2/8/2015 Analysis Completed Time: 2:24 AM

Analyst(s):

Deen Liang PLM (10)

Shahrakur Mahmud PLM (10)

Samples reviewed and approved by:

James Hall, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/08/2015 04:50:45



EMSL - MA
 7 Constitution Way, Ste 107
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 (866) 448-3675
 (212) 290-0058 Fax

EMSL - NJ
 107 Haddon Avenue
 Westmont, NJ 08108
 (800) 220-3675
 (856) 858-4960 Fax

Your Name: Brandy LeBlanc **Project Manager:** PF

Company: Eagle Environmental, Inc.

Street: 8 South Main Street, Suite 3

City/State/Zip: Terryville, CT 06786

Phone: 860-589-8257 ext. 108 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com, dwyrne@eagleenviro.com, rsioch@eagleenviro.com

Project Name: Capital Studio Architects - Superstorm Sandy **Project #:** 15-015.1071

Project Location: 28 Island Circle N, Groton **Project State (US):** CT

TURNAROUND TIME

3 Hours 6 Hours 24 Hours 48 Hours 72 Hours 4 Days 5 Days 6-10 Days

SAMPLE MATRIX

Air Bulk Soil Wipe Micro-Vac Drinking Water Wastewater Chips Other

ASBESTOS ANALYSIS

PCM - Air

- NIOSH 7400 (A) Issue 2, August 1994
- OSHA w/TWA

TEM AIR

- AHERA 40 CFR, Part 763 Subpart E
- NIOSH 7402 Issue 2
- EPA Level II

PLM - Bulk

- EPA 600/R-93/116
- NY Stratified Point Count
- California Air Resource Board (CARB) 435
- NIOSH 9002
- PLM NOB (Gravimetric) NYS 198.1
- EPA Point Count (400 Points)
- EPA Point Count (1,000 Points)
- Standard Addition Point Count

SOILS

- EPA Protocol Qualitative
- EPA Protocol Quantitative
- EMSL MSD 9000 Method fibers/gram
- Superfund EPA 540-R097-028 (dust generation)

TEM BULK

- Drop Mount (Qualitative)
- Chatfield SOP-1988-02
- TEM NOB (Gravimetric) NY 198.4

TEM MICROVAC

- ASTM D 5755-95 (Quantitative)

TEM WIPE

- ASTM D-6480-99
- Qualitative

TEM WATER

- EPA 100.1
- EPA 100.2
- NYS 198.2
- Other:

031528546

LEAD ANALYSIS

Flame Atomic Absorption

- Wipe, SW846-7420 ASTM non ASTM
- Soil, SW846-7420
- Air, NIOSH 7082
- Chips, SW846-7420 or AOAC 5.009 (974 02)
- Wastewater, SW 846-7420
- TCLP LEAD SW846-1311/7420

Graphite Furnace Atomic Absorption

- Air, NIOSH 7105
- Wastewater, SW846-7421
- Soil, SW846-7421
- Drinking Water, EPA 239.2

ICP - Inductively Coupled Plasma

- Wipe, SW846-6010 ASTM non ASTM
- Soil, SW846-6010
- Air, NIOSH 7300

MATERIALS ANALYSIS

- Full Particle Identification
- Optical Particle Identification
- Dust Mites and Insect Fragments
- Particle Size & Distribution
- Product Comparison
- Paint Characterization
- Failure Analysis
- Corrosion Analysis
- Glove Box Containment Study
- Petrographic Examination of Concrete
- Portland Cement in Workplace Atmospheres (OSHA ID-143)
- Man Made Vitrous Fibers - MMVF's
- Synthetic Fiber Identification
- Other:

MICROBIAL ANALYSIS

Air Samples

- Mold & Fungi by Air O Cell
- Mold & Fungi by Agar Plate count & id
- Bacterial Count and Gram Stain
- Bacterial Count and Identification

Water Samples

- Total Coliforms, Fecal Coliforms
- Escherichia Coli, Fecal Streptococcus
- Legionella
- Salmonella
- Giardia and Cryptosporidium

Wipe and Bulk Samples

- Mold & Fungi - Direct Examination
- Mold & Fungi - (Culture follow up to direct examination if necessary)
- Mold & Fungi - Culture Count & ID
- Mold & Fungi - Culture Count only
- Bacterial Count & Gram Stain
- Bacterial Count & Identification (3 most prominent types)
- Other:

IAQ ANALYSIS

- Nuisance Dust (NIOSH 0500 & 0600)
- Airborne Dust (PM10, TSP)
- Silica Analysis by XRD NIOSH 7500
- HVAC Efficiency
- Carbon Black
- Airborne Oil Mist
- Other:

RECEIVED
 8/31/15 10:26 AM
 MAINTENANCE LAB

Additional Information/Comments/Instructions: ****PLEASE STOP ON 1ST POSITIVE WITHIN SETS**

Client Sample # (S)	08-28-TN-01	08-28-TN-08	TOTAL SAMPLE #
Relinquished:	THOMAS NEVILLE <i>Thomas Neville / es</i>	Date: 8/31/15	Time: PM
Received:	EMILY FOLEY <i>Emily Foley</i>	Date: 8/31/15	Time: PM
Relinquished:	EMILY FOLEY	Date: 8/31/15	Time: PM
Received:	<i>Yu Lin Yu Z</i>	Date: 9/1/15	Time: 10:26 AM

7/8

Ha 9/2 11:4pm Page 1

**EMSL Analytical, Inc.**

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Phone/Fax: (212) 290-0051 / (212) 290-0058

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

EMSL Order: 031528546

CustomerID: EEVM50

CustomerPO:

ProjectID:

Attn: **Brandy LeBlanc**
Eagle Environmental, Inc. - CT
8 South Main Street
Suite 3
Terryville, CT 06786

Phone: (860) 589-8257
 Fax: (860) 585-7034
 Received: 09/01/15 10:26 AM
 Analysis Date: 9/2/2015
 Collected: 8/31/2015

Project: 15-015-10T1/ CAPITAL STUDIO ARCHITECTS - SUPERSTORM SANDY / 28 ISLAND CIRCLE N/ GROTON, CT

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
08-28-TN-01 031528546-0001	WHITE CAULK - CHIMENY	Gray/White Non-Fibrous Homogeneous		60% Ca Carbonate 38% Non-fibrous (other)	2% Anthophyllite
08-28-TN-02 031528546-0002	WHITE CAULK - CHIMENY				Stop Positive (Not Analyzed)
08-28-TN-03 031528546-0003	CEMENT AT FIREBOX - GAR FURNAC	Gray/Red Non-Fibrous Homogeneous	20% Fibrous (other)	80% Non-fibrous (other)	None Detected
08-28-TN-04 031528546-0004	CEMENT AT FIREBOX - GAR FURNAC	Gray Non-Fibrous Homogeneous		46% Matrix 54% Non-fibrous (other)	None Detected
08-28-TN-05 031528546-0005	CEMENT AT BREECHING - GAR FURNAC	Gray/White Non-Fibrous Homogeneous		83% Non-fibrous (other) 17% Vermiculite	None Detected
08-28-TN-06 031528546-0006	CEMENT AT BREECHING - GAR FURNAC	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
08-28-TN-07 031528546-0007	GREY WINDOW CAULK - HOUSE EXT	Gray Non-Fibrous Homogeneous	3% Fibrous (other)	45% Ca Carbonate 52% Non-fibrous (other)	None Detected
08-28-TN-08 031528546-0008	GREY WINDOW CAULK - HOUSE EXT	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	None Detected

Analyst(s)

Henry Akintunde (3)

Shahrakur Mahmud (4)

James Hall, 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. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 09/02/2015 13:48:29

APPENDIX 3

INTERIOR AND EXTERIOR VISUAL ASSESSMENT FORMS



EAGLE Environmental, Inc.

INTERIOR VISUAL ASSESSMENT FORM

Address: 28 Island Circle North, Groton

Room No: 001 Living Rm

COMPONENT	SIDE	RATING	NOTES	INTERIM CONTROL
Floor	A B C D	① F P	Hardwood	
Wall	① A B C D	① F P		
Ceiling	A B C D	I F P	XRF	
Door	① A B C D	I F P		
Door Casing	① A B C D	I F P		
Door Jamb	① A B C D	I F P		
Baseboard	① A B C D	① F P		
Window Casing	① A B C D	I F P	} A-right - ow A-left and D-right are fixed sashes	
Window Stop	① A B C D	I F P		
Window Jamb	① A B C D	I F P		
Window Sash	① A B C D	I F P		
Window Well	① A B C D	I F P		
Window Sill	① A B C D	I F P		
Window Apron	① A B C D	I F P		
Closet Door	A B C D	I F P		
Cist.Door Casing	A B C D	I F P		
Cist.Door Jamb	A B C D	I F P		
Closet Shelf	A B C D	I F P		
Shelf Support	A B C D	I F P		
Radiator	A B C D	I F P		
Crown Molding	A B C D	I F P		
Cabinet	A B C D	I F P		
Cabinet Door	A B C D	I F P		
Cabinet Frame	A B C D	I F P		
Cornerboard	A B C D	① F P		
Fireplace	A B C D	① F P	Brick	
Bookcase shelving unit	A B C D	① F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		



EAGLE Environmental, Inc.

INTERIOR VISUAL ASSESSMENT FORM

Address: 28 Island Circle North, Groton

Room No: 004 Sun Porch

COMPONENT	SIDE	RATING	NOTES	INTERIM CONTROL
Floor	A B C D	(1) F P	Painted Plywood	
Wall	(A) (B) (C) (D)	(1) F P		
Ceiling	A B C D	(1) F P		
Door	A B C D	(1) F P	metal sliders	
Door Casing	(A) (B) (C) (D)	(1) F P	w/ new wood	
Door Jamb	A B C D	(1) F P	trim components	
Baseboard	(A) (B) (C) (D)	(1) F P		
Window Casing	(A) B C D	(1) F P		
Window Stop	(A) B C D	(1) F P		
Window Jamb	A B C D	I F P		
Window Sash	(A) B C D	(1) F P	vinyl - A - Right	
Window Well	(A) B C D	(1) F P	original - A - Left	
Window Sill	(A) B C D	(1) F P		
Window Apron	(A) B C D	(1) F P		
Closet Door	A B C D	I F P		
Closet Door Casing	A B C D	I F P		
Closet Door Jamb	A B C D	I F P		
Closet Shelf	A B C D	I F P		
Shelf Support	A B C D	I F P		
Radiator	A B C D	I F P		
Crown Molding	A B C D	I F P		
Cabinet	A B C D	I F P		
Cabinet Door	A B C D	I F P		
Cabinet Frame	A B C D	I F P		
Entry Door	A B C (D)	(1) F P		
Entry Door Casing	A B C (D)	(1) F P		
Entry Door Jamb	A B C (D)	(1) F P		
Entry Door Stop	A B C (D)	(1) F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		



EAGLE Environmental, Inc.

INTERIOR VISUAL ASSESSMENT FORM

Address: 28 Island Circle North, Groton

Room No: Attic - Crawl Space

COMPONENT	SIDE	RATING	NOTES	INTERIM CONTROL
Floor	A B C D	I F P		
Wall	A B C D	I F P		
Ceiling	A B C D	I F P	NO Painted Components ↓	
Door	A B C D	I F P		
Door Casing	A B C D	I F P		
Door Jamb	A B C D	I F P		
Baseboard	A B C D	I F P		
Window Casing	A B C D	I F P		
Window Stop	A B C D	I F P		
Window Jamb	A B C D	I F P		
Window Sash	A B C D	I F P		
Window Well	A B C D	I F P		
Window Sill	A B C D	I F P		
Window Apron	A B C D	I F P		
Closet Door	A B C D	I F P		
Closet Door Casing	A B C D	I F P		
Closet Door Jamb	A B C D	I F P		
Closet Shelf	A B C D	I F P		
Shelf Support	A B C D	I F P		
Radiator	A B C D	I F P		
Crown Molding	A B C D	I F P		
Cabinet	A B C D	I F P		
Cabinet Door	A B C D	I F P		
Cabinet Frame	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P	Attic has two (2)	
	A B C D	I F P	windows - one on	
	A B C D	I F P	"B" and one on	
	A B C D	I F P	"D" side. They	
	A B C D	I F P	are unpainted	
	A B C D	I F P	on interior, but	
	A B C D	I F P	pointed on exterior	
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		
	A B C D	I F P		

APPENDIX 4

XRF LEAD-BASED PAINT INSPECTION REPORTS

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#01509 - 02/06/15 11:25

INSPECTION FOR: Mr. David Holmes
Capital Studio Architects
1379 Main Street
East Hartford, CT 06108

PERFORMED AT: 28 Island Circle North
Groton, CT

INSPECTION DATE: 02/06/15

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 01509

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: 002206

A Lead-Based Paint Hazard Screen was performed for the interiors and exteriors of the building.

SIGNED: Kristen DeFrance
Kristen DeFrance
Lead Inspector / Risk Assessor
Eagle Environmental, Inc.
8 South Main Street, Suite # 3
Terryville, CT 06786

Date: 2/6/15

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Mr. David Holmes

Inspection Date: 02/06/15 28 Island Circle North
 Report Date: 2/6/2015 Groton, CT
 Abatement Level: 1.0
 Report No. S#01509 - 02/06/15 11:25
 Total Readings: 77 Actionable: 12
 Job Started: 02/06/15 11:25
 Job Finished: 02/06/15 14:22

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 001 Living Rm									
066	A	Door	Ctr	Jamb	P	Wood	White	1.5	QM
067	A	Door	Ctr	Stop	P	Wood	blue	4.1	QM
Interior Room 003 Bedroom 2									
030	B	Window	Ctr	Jamb	P	Wood	White	2.8	QM
031	B	Window	Ctr	Blindstop	P	Wood	White	2.7	QM
032	B	Window	Ctr	Ext Sash	P	Wood	White	4.8	QM
028	B	Window	Ctr	Well	P	Wood	White	1.5	QM
Interior Room 006 Bath									
036	C	Window	Ctr	Ext Sash	P	Wood	Gray	1.5	QM
Interior Room 007 Bedroom 3									
060	C	Window	Ctr	Jamb	P	Wood	White	1.5	QM
061	C	Window	Ctr	Blindstop	P	Wood	White	2.9	QM
062	C	Window	Ctr	Ext Sash	P	Wood	White	4.1	QM
058	C	Window	Ctr	Well	P	Wood	White	1.5	QM
059	C	Window	Ctr	Part. bead	P	Wood	White	1.0	QM

Calibration Readings

---- End of Readings ----

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. David Holmes

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
031	B	Window	Ctr	Blindstop	P	Wood	White	2.7	QM
032	B	Window	Ctr	Ext Sash	P	Wood	White	4.8	QM
027	B	Window	Ctr	Sash	P	Wood	White	0.1	QM
028	B	Window	Ctr	Well	P	Wood	White	1.5	QM
026	B	Window	Ctr	Apron	P	Wood	White	0.1	QM
025	B	Window	Ctr	Sill	P	Wood	White	0.0	QM
029	B	Window	Ctr	Part. bead	P	Wood	White	0.4	QM
034	D	Closet	Ctr	Door	P	Wood	White	-0.1	QM
033	D	Closet	Ctr	Door Casing	P	Wood	White	-0.1	QM
035	D	Closet	Ctr	Wall	P	Dry wall	White	0.0	QM

Interior Room 005 Kitchen

048	-	Ceiling	Ctr		P	Dry wall	White	-0.1	QM
044	A	Door	Ctr		P	Wood	White	0.1	QM
045	A	Door	Ctr	Casing	P	Wood	White	-0.3	QM
046	A	Door	Ctr	Jamb	P	Wood	White	0.1	QM
047	A	Door	Ctr	Stop	P	Wood	White	0.1	QM
037	C	Wall	Ctr		P	Dry wall	White	0.0	QM
038	C	Window	Ctr	Casing	P	Wood	White	0.2	QM
041	C	Window	Ctr	Stop	P	Wood	White	0.1	QM
042	C	Window	Ctr	Sash	P	Wood	White	0.1	QM
040	C	Window	Ctr	Apron	P	Wood	White	0.1	QM
039	C	Window	Ctr	Sill	P	Wood	White	0.0	QM
043	C	Column	Lft		P	Wood	White	0.0	QM

Interior Room 006 Bath

036	C	Window	Ctr	Ext Sash	P	Wood	Gray	1.5	QM
-----	---	--------	-----	----------	---	------	------	-----	----

Interior Room 007 Bedroom 3

063	-	Floor	Ctr		P	Wood	White	-0.1	QM
049	A	Wall	Ctr		P	Dry wall	Yellow	0.1	QM
051	C	Wall	Ctr		P	Dry wall	Yellow	0.1	QM
052	C	Baseboard	Ctr		P	Wood	White	0.0	QM
053	C	Window	Ctr	Casing	P	Wood	White	0.4	QM
056	C	Window	Ctr	Stop	P	Wood	White	0.0	QM
060	C	Window	Ctr	Jamb	P	Wood	White	1.5	QM
061	C	Window	Ctr	Blindstop	P	Wood	White	2.9	QM
062	C	Window	Ctr	Ext Sash	P	Wood	White	4.1	QM
057	C	Window	Ctr	Sash	P	Wood	White	0.2	QM
058	C	Window	Ctr	Well	P	Wood	White	1.5	QM
055	C	Window	Ctr	Apron	P	Wood	White	0.1	QM
054	C	Window	Ctr	Sill	P	Wood	White	-0.1	QM
059	C	Window	Ctr	Part. bead	P	Wood	White	1.0	QM
050	D	Wall	Ctr		P	Dry wall	Yellow	0.0	QM

Calibration Readings

001								1.1	TC
002								1.1	TC
003								1.1	TC

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. David Holmes

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
075								1.0	TC
076								1.0	TC
077								1.1	TC
----- End of Readings -----									

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#01509 - 08/28/15 10:40

INSPECTION FOR: David Holmes
Capitol Studio Architects
1379 Main Street
East Hartford, CT 06108

PERFORMED AT: 28 Island Circle North
Groton, Long Point CT, 06340

INSPECTION DATE: 08/28/15

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 01509

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: 002219

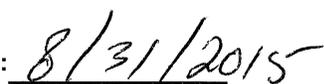
Conduct Lead-Based Paint Screening.

SIGNED: _____



Thomas R. Neville
Lead Inspector
Eagle Environmental, Inc
8 South Main Street, Suite 3
Terryville, CT 06786

Date: _____



SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: David Holmes

Inspection Date: 08/28/15 28 Island Circle North
 Report Date: 8/31/2015 Groton, Long Point CT, 06340
 Abatement Level: 1.0
 Report No. S#01509 - 08/28/15 10:40
 Total Readings: 33 Actionable: 5
 Job Started: 08/28/15 10:40
 Job Finished: 08/28/15 11:39

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Exterior Room 001 Facade A									
013	A	Window	Lft	Frame	P	Wood	green	7.5	QM
014	A	Window	Lft	Sill	P	Wood	green	2.9	QM
005	A	Window	Rgt	Frame	P	Wood	White	1.0	QM
006	A	Window	Rgt	Sill	P	Wood	White	3.0	QM

Exterior Room 003 Facade C

021	C	Wall	Lft	Edge	P	Wood	White	1.0	QM
-----	---	------	-----	------	---	------	-------	-----	----

Calibration Readings

----- End of Readings -----

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: David Holmes

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm²)	Mode
------------------------	-------------	------------------	-----------------	---------------	-----------------------	------------------	--------------	-------------------------------------	-------------

---- End of Readings ----

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#01509 - 08/28/15 11:40

INSPECTION FOR: David Holmes
Capitol Studio Achitects
1379 Main Street
East Hartford, CT 06108

PERFORMED AT: 28 Island Circle North
Groton Long Point, CT 06430

INSPECTION DATE: 08/28/15

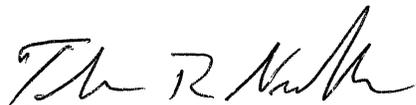
INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 01509

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: 002219

Conduct Lead-Based Paint Screening.

SIGNED: _____



Thomas R. Neville
Lead Inspector
Eagle Environmentla, Inc.
8 South Main Street, Suite 3
Terryville, CT 06786

Date: _____

8/31/2015

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: David Holmes

Inspection Date: 08/28/15 28 Island Circle North
 Report Date: 8/31/2015 Groton Long Point, CT 06430
 Abatement Level: 1.0
 Report No. S#01509 - 08/28/15 11:40
 Total Readings: 1 Actionable: 1
 Job Started: 08/28/15 11:40
 Job Finished: 08/28/15 12:11

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Exterior Room 001 Facade D									
001	D	Rake Board	Lft		P	Wood	White	1.0	QM
----- End of Readings -----									

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: David Holmes

Inspection Date: 08/28/15 28 Island Circle North
Report Date: 8/31/2015 Groton Long Point, CT 06430
Abatement Level: 1.0
Report No. S#01509 - 08/28/15 11:40
Total Readings: 1
Job Started: 08/28/15 11:40
Job Finished: 08/28/15 12:11

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Exterior Room 001 Facade D									
001	D	Rake Board	Lft		P	Wood	White	1.0	QM
----- End of Readings -----									

APPENDIX 5

DUST SAMPLE LABORATORY REPORTS



www.emsl.com

EMSL - MA
7 Constitution Way, Ste 107
Woburn, MA 01801
(781) 933-8411
(781) 933-8412 Fax

EMSL - CT
29 N. Plains Hwy, Unit 4
Wallingford, CT 06492
(203) 284-5948
(203) 284-5978 Fax

EMSL - NY
307 West 38th Street
New York, NY 10018
(866) 448-3675
(212) 290-0058 Fax

EMSL - NJ
107 Haddon Avenue
Westmont, NJ 08108
(800) 220-3675
(856) 858-4960 Fax

Your Name: Brandy LeBlanc *031548451* **Project Manager:** PF
Company: Eagle Environmental, Inc.
Street: 8 South Main Street, Suite 3
City/State/Zip: Terryville, CT 06786
Phone: 860-589-8257 ext. 108 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com; dwynne@eagleenviro.com; rsioch@eagleenviro.com
Project Name: CSA - Environmental Review **Project #:** 15-015.10T1
Project Location: 28 Island Circle North, Groton **Project State (US):** CT

TURNAROUND TIME

3 Hours 6 Hours 24 Hours 48 Hours 72 Hours 4 Days 5 Days 6-10 Days

SAMPLE MATRIX

Air Bulk Soil Wipe Micro-Vac Drinking Water Wastewater Chips Other

<p>ASBESTOS ANALYSIS</p> <p>PCM - Air <input type="checkbox"/> NIOSH 7400 (A) Issue 2: August 1994 <input type="checkbox"/> OSHA w/TWA</p> <p>TEM AIR <input type="checkbox"/> AHERA 40 CFR, Part 763 Subpart E <input type="checkbox"/> NIOSH 7402 Issue 2 <input type="checkbox"/> EPA Level II</p> <p>PLM - Bulk <input type="checkbox"/> EPA 600/R-93/116 <input type="checkbox"/> NY Stratified Point Count <input type="checkbox"/> California Air Resource Board (CARB) 435 <input type="checkbox"/> NIOSH 9602 <input type="checkbox"/> PLM NOB (Gravimetric) NYS 198.1 <input type="checkbox"/> EPA Point Count (400 Points) <input type="checkbox"/> EPA Point Count (1,000 Points) <input type="checkbox"/> Standard Addition Point Count</p> <p>SOILS <input type="checkbox"/> EPA Protocol Qualitative <input type="checkbox"/> EPA Protocol Quantitative <input type="checkbox"/> EMSL MSD 9000 Method fibers/gram <input type="checkbox"/> Superfund EPA 540-R097-028 (dust generation)</p> <p>TEM BULK <input type="checkbox"/> Drop Mount (Qualitative) <input type="checkbox"/> Chatfield SOP-1988-02 <input type="checkbox"/> TEM NOB (Gravimetric) NY 198.4</p> <p>TEM MICROVAC <input type="checkbox"/> ASTM D 5755-95 (Quantitative)</p> <p>TEM WIPE <input type="checkbox"/> ASTM D-6480-99 <input type="checkbox"/> Qualitative <input type="checkbox"/></p> <p>TEM WATER <input type="checkbox"/> EPA 100.1 <input type="checkbox"/> EPA 100.2 <input type="checkbox"/> NYS 198.2 <input type="checkbox"/> Other: _____</p>	<p>LEAD ANALYSIS</p> <p>Flame Atomic Absorption <input checked="" type="checkbox"/> Wipe, SW846-7420 <input checked="" type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> Soil, SW846-7420 <input type="checkbox"/> Air, NIOSH 7082 <input type="checkbox"/> Chips, SW846-7420 or AOAC 5.009 (974.02) <input type="checkbox"/> Wastewater, SW 846-7420 <input type="checkbox"/> TCLP LEAD SW846-1311/7420</p> <p>Graphite Furnace Atomic Absorption <input type="checkbox"/> Air, NIOSH 7105 <input type="checkbox"/> Wastewater, SW846-7421 <input type="checkbox"/> Soil, SW846-7421 <input type="checkbox"/> Drinking Water, EPA 239.2</p> <p>ICP - Inductively Coupled Plasma <input type="checkbox"/> Wipe, SW846-6010 <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> Soil, SW846-6010 <input type="checkbox"/> Air, NIOSH 7300</p>	<p>MICROBIAL ANALYSIS</p> <p>Air Samples <input type="checkbox"/> Mold & Fungi by Air O Cell <input type="checkbox"/> Mold & Fungi by Agar Plate count & id <input type="checkbox"/> Bacterial Count and Gram Stain <input type="checkbox"/> Bacterial Count and Identification</p> <p>Water Samples <input type="checkbox"/> Total Coliforms, Fecal Coliforms <input type="checkbox"/> Escherichia Coli, Fecal Streptococcus <input type="checkbox"/> Legionella <input type="checkbox"/> Salmonella <input type="checkbox"/> Giardia and Cryptosporidium</p> <p>Wipe and Bulk Samples <input type="checkbox"/> Mold & Fungi - Direct Examination <input type="checkbox"/> Mold & Fungi - (Culture follow up to direct examination if necessary) <input type="checkbox"/> Mold & Fungi - Culture (Count & ID) <input type="checkbox"/> Mold & Fungi - Culture (Count only) <input type="checkbox"/> Bacterial Count & Gram Stain <input type="checkbox"/> Bacterial Count & Identification (3 most prominent types) <input type="checkbox"/> Other: _____</p>
<p>MATERIALS ANALYSIS</p> <input type="checkbox"/> Full Particle Identification <input type="checkbox"/> Optical Particle Identification <input type="checkbox"/> Dust Mites and Insect Fragments <input type="checkbox"/> Particle Size & Distribution <input type="checkbox"/> Product Comparison <input type="checkbox"/> Paint Characterization <input type="checkbox"/> Failure Analysis <input type="checkbox"/> Corrosion Analysis <input type="checkbox"/> Glove Box Containment Study <input type="checkbox"/> Petrographic Examination of Concrete <input type="checkbox"/> Portland Cement in Workplace Atmospheres (OSHA ID-143) <input type="checkbox"/> Man Made Vitrous Fibers - MMVF's <input type="checkbox"/> Synthetic Fiber Identification <input type="checkbox"/> Other: _____	<p>IAQ ANALYSIS</p> <input type="checkbox"/> Nuisance Dust (NIOSH 0500 & 0600) <input type="checkbox"/> Airborne Dust (PM10, TSP) <input type="checkbox"/> Silica Analysis by XRD - NIOSH 7500 <input type="checkbox"/> HVAC Efficiency <input type="checkbox"/> Carbon Black <input type="checkbox"/> Airborne Oil Mist <input type="checkbox"/> Other: _____	

EMSL MANHATTAN LAB
 RECEIVED
 15 FEB 2015 11:02 AM

Additional Information/Comments/Instructions: ****PLEASE STOP ON 1ST POSITIVE WITHIN SETS**

Client Sample # (S)	<i>2/6 KD 01</i>	<i>2/6 KD 10</i>	TOTAL SAMPLE #	<i>10</i>
Relinquished:	<i>[Signature]</i>	Date:	<i>2/6/15</i>	Time:
Received:	<i>[Signature]</i>	Date:	<i>2/6/15</i>	Time:
Relinquished:	<i>[Signature]</i>	Date:	<i>2/8/15</i>	Time:
Received:	<i>[Signature]</i>	Date:	<i>2/8/15</i>	Time: <i>11:02 AM</i>

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018
 Phone/Fax: (212) 290-0051 / (212) 290-0058
<http://www.EMSL.com> manhattanlab@emsl.com

EMSL Order: 031503451
 CustomerID: EEVM50
 CustomerPO: 15-015.10T1
 ProjectID:

Attn: **Brandy LeBlanc**
Eagle Environmental, Inc. - CT
8 South Main Street
Suite 3
Terryville, CT 06786

Phone: (860) 589-8257
 Fax: (860) 585-7034
 Received: 02/07/15 11:02 AM
 Collected: 2/6/2015

Project: 15-015.10T1/ CSA - ENVIRONMENTAL REVIEW/ 28 ISLAND CIRCLE NORTH/ GROTON, CT

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area Sampled</i>	<i>Lead Concentration</i>
2/6 KD 01 Site: LIVING ROOM/ FLOOR AT ENTRY	031503451-0001	2/6/2015	2/8/2015	144 in ²	<10 µg/ft ²
2/6 KD 02 Site: LIVING ROOM/ WINDOW SILL	031503451-0002	2/6/2015	2/8/2015	66.42 in ²	<22 µg/ft ²
2/6 KD 03 Site: BEDROOM 2/ FLOOR	031503451-0003	2/6/2015	2/8/2015	144 in ²	<10 µg/ft ²
2/6 KD 04 Site: BEDROOM 2/ WINDOW SILL	031503451-0004	2/6/2015	2/8/2015	129 in ²	120 µg/ft ²
2/6 KD 05 Site: KITCHEN/ FLOOR AT ENTRY	031503451-0005	2/6/2015	2/8/2015	144 in ²	<10 µg/ft ²
2/6 KD 06 Site: KITCHEN/ WINDOW SILL	031503451-0006	2/6/2015	2/8/2015	45 in ²	<32 µg/ft ²
2/6 KD 07 Site: BEDROOM 3/ FLOOR	031503451-0007	2/6/2015	2/8/2015	144 in ²	<10 µg/ft ²
2/6 KD 08 Site: BEDROOM 3/ WINDOW SILL	031503451-0008	2/6/2015	2/8/2015	129 in ²	190 µg/ft ²
2/6 KD 09 Site: FIELD BLANK	031503451-0009	2/6/2015	2/8/2015	n/a	<10 µg/wipe
2/6 KD 10 Site: FIELD BLANK	031503451-0010	2/6/2015	2/8/2015	n/a	<10 µg/wipe

M. Apfeldorfer

Miron Apfeldorfer, Laboratory Manager
 or other approved signatory

Reporting limit is 10 ug/wipe. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

* slight modifications to methods applied Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted
 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-ELLAP Accredited #102581, NYS ELAP 11506

Initial report from 02/08/2015 05:00:01

APPENDIX 6

RADON TESTING REPORTS

Radon testing was not performed at the time of inspection as the property is scheduled to be elevated and the lowest level of the building will not be in contact with the ground.

APPENDIX 7
MOLD INSPECTION FORMS



MOLD MOISTURE READING FORM

Eagle Project No: 15-015.10T_ Date: February 6, 2015 Inspector: Andrew Carnevale

Facility Address: 28 Island Circle North, Groton, CT

MOISTURE MODE						
ROOM	COMPONENT	SUBSTRATE	REL. SURFACE MOISTURE	DRY	AT RISK	WET
Attic	Rafter	Wood	8.0	YES		
Attic	Floor	Wood	8.5	YES		
Crawl Space	Joist	Wood	15.5	YES		
Living Room	Ceiling	Drywall	5.5	YES		
Bedroom 2	Ceiling	Drywall	5.8	YES		

HYGROMETER MODE				
TIME	ROOM	% RELATIVE HUMIDITY	AIR TEMP.	DEW POINT TEMP.
11:00 AM	Attic	50.2	58.0	17.0
11:20 AM	Crawl Space	48.7	55.0	17.5

APPENDIX 8

ABATEMENT AND CONSULTING COST ESTIMATE

HAZARDOUS MATERIALS ABATEMENT COST ESTIMATES

APPLICATION NO. 2106
28 ISLAND CIRCLE NORTH
GROTON, CONNECTICUT

ASBESTOS ABATEMENT COST ESTIMATE

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
CONTRACTOR MOBILIZATION	1	\$ 750.00	\$ 750.00
CAULK	120	\$ 18.00 LF	\$ 2,160.00
SUBTOTAL			\$ 2,910.00
ASBESTOS ABATEMENT CONTINGENCY			\$ 291.00
ASBESTOS TOTAL			\$ 3,201.00

LEAD BASED PAINT COST ESTIMATE

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
LEAD-BASED PAINT CONTINGENCY	1	\$ 5,200.00 EACH	\$ 5,200.00
SUBTOTAL			\$ 5,200.00
LEAD RENOVATION CONTINGENCY			\$ 1,040.00
LEAD RENOVATION TOTAL			\$ 6,240.00

HAZARDOUS MATERIALS ABATEMENT SUBTOTAL \$ 9,441.00

HAZARDOUS MATERIALS CONSULTING COST ESTIMATE

CONSULTING COST	QUANTITY	UNIT COST	TOTAL COST
HAZARDOUS MATERIALS CONSULTING CONTINGENCY	1	\$2,500.00 EACH	\$ 2,500.00
SUBTOTAL			\$ 2,500.00
CONSULTING CONTINGENCY			\$ 250.00
CONSULTING TOTAL			\$ 2,750.00

GRAND TOTAL \$ 12,191.00

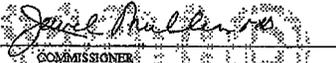
APPENDIX 9
EAGLE ENVIRONMENTAL, INC. LICENSES
AND LABORATORY CERTIFICATES

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A
LEAD CONSULTANT CONTRACTOR

EAGLE ENVIRONMENTAL INC.

LICENSE NO.
001728
CURRENT THROUGH
04/30/15
VALIDATION NO.
03-794089


SIGNATURE


COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A
LEAD CONSULTANT CONTRACTOR

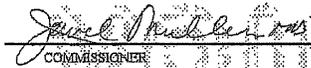
EAGLE ENVIRONMENTAL INC.

LICENSE NO.
001723

CURRENT THROUGH
04/30/16

VALIDATION NO.
03-206774


SIGNATURE


COMMISSIONER

Certificate of Training

Awarded to

ANDREW CARNEVALE

For successful completion of a 4 Hour, 1/2 Day
**Asbestos Building Inspector
Annual Refresher Training**
January 5, 2015

This training was approved and given in accordance with the
Regulations for Connecticut State Agencies
RCSA 20-440-19 and RCSA 20-441 and meets the
requirements of the EPA Revised MAP under TSCA Title II of 4/4/94.

Presented by

Mystic Air Quality Consultants, Inc.

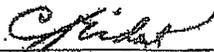
1204 North Road, Groton, CT, 06340 (800) 247-7746

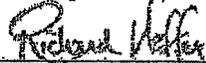
Certificate Number: ABIRF23635

Exam Grade: 80

Expiration Date: 01/05/2016

Exam Date: 01/05/2015


Christopher J. Eident, CH, CSP, RS


George Williamson, Training Director
Richard Haffey, Training Director

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT INSPECTOR

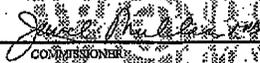
ANDREW C. CARNEVALE

CERTIFICATE NO:
000850

CURRENT THROUGH:
10/31/15

VALIDATION NO:
03-134046


SIGNATURE


COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

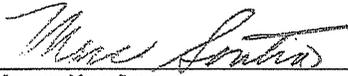
This certifies that

Thomas R. Neville

has successfully completed the
Asbestos Site Inspector Initial Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

conducted by

Cardno ATC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070



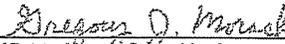
Principal Instructor: Marcus Souza

January 12-14, 2015

Date of Course

January 14, 2016

Expiration Date



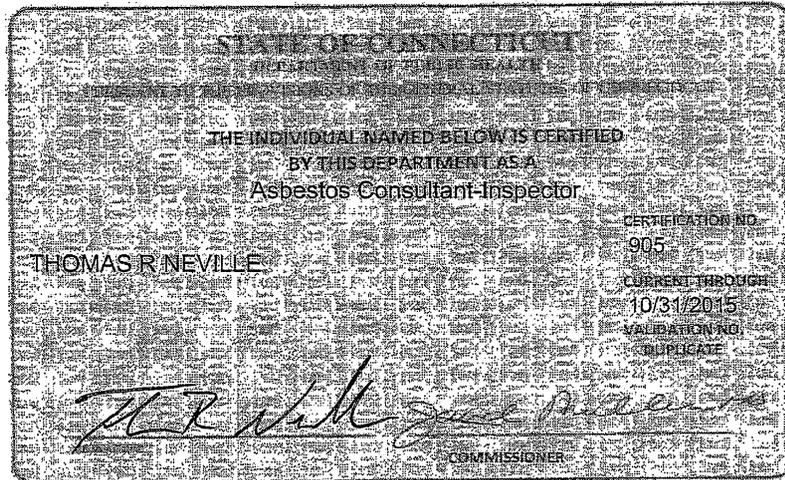
Regional Training Manager: Gregory Morsch

SI-1780

Certificate Number

January 14, 2015

Examination Date



ENVIRONMENTAL TRAINING AND ASSESSMENT

Certificate of Completion *Lead Inspector/Risk Assessor — Refresher*

Awarded To

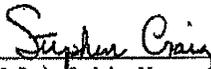
Kristen DeFrance
1233 Millbrook Road
Middletown, CT 06457

Has successfully completed, and passed an examination covering the contents of a EPA Model Eight (8) Hour Refresher Training Course for Lead Inspector/Risk Assessor and in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes. Approved under the New Standard and 40 CFR 745.225(c)(8)(i).

Course Date: 1/5/2015
Examination Date: 1/5/2015

Examination Grade: 96%
Certificate Number: LI/RAR-00372

Expiration Date: 1/5/2016


Stephen J. Craig, Training Manager

Boston Lead Company, LLC
dba
Environmental Training and Assessment
62 Washington Street
Middletown, CT 06457
860-347-7277

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR/RISK ASSESSOR

KRISTEN P DEFRANCE

CERTIFICATE NO.
002206

CURRENT THROUGH
12/31/15

VALIDATION NO.
03-148105


SIGNATURE


COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

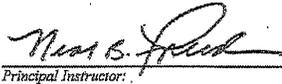
Thomas R. Neville

31 Graham Road, Broad Brook, CT 06016
000-00-9560

has successfully completed the

LEAD INSPECTOR INITIAL TRAINING

Training Course
conducted by
Cardno ATC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070



Principal Instructor

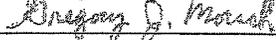
March 23-25, 2015
Date of Course

March 25, 2015
Exam Date

ELI-997
Certificate Number

March 25, 2016
Expiration Date

Training received complies with the requirements of the
Connecticut Department of Public Health pursuant to
Section 20-477 of the Connecticut General Statutes.


Regional Training Director

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR

THOMAS R NEVILLE

CERTIFICATE NO.

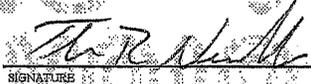
002219

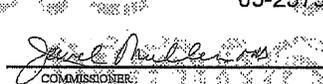
CURRENT THROUGH

10/31/15

VALIDATION NO.

03-237318


SIGNATURE


COMMISSIONER

ENVIRONMENTAL TRAINING AND
ASSESSMENT

Certificate of Completion

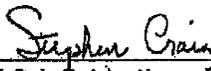
Lead Planner-Project Designer — Refresher

Awarded To

Kristen DeFrance
8 South Main Street
Terryville, CT 06786

Has successfully completed, and passed an examination covering the contents of the Eight (8) Hour Refresher Training Course for Lead Planner-Project Designer in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes. Approved under the New Standard.

Course Date: 1/6/2015 Examination Grade: 86%
Examination Date: 1/6/2015 Certificate Number: LPPDR-00184
Expiration Date: 1/6/2016


Stephen J. Craig, Training Manager

Boston Lead Company, LLC
dba
Environmental Training and Assessment
62 Washington Street
Middletown, CT 06426
860-347-7277

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD PLANNER/PROJECT DESIGNER

KRISTEN P DEFRANCE

CERTIFICATE NO.
002153

CURRENT THROUGH
12/31/15

VALIDATION NO.
03-148106


SIGNATURE


COMMISSIONER

State of Connecticut, Department of Public Health
Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

EMSL ANALYTICAL, INC. - MANHATTAN, NY

LOCATED AT 307 West 38th Street IN New York, NY 10018
AND REGISTERED IN THE NAME OF Peter Frasca, Ph.D.

THIS CERTIFICATE IS ISSUED IN THE NAME OF James Hall WHO HAS BEEN DESIGNATED
BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF
APPROVAL AS FOLLOWS:

ASBESTOS

Environmental Health & Housing

Examination For:

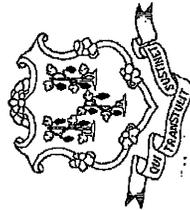
Bulk - Identification (PLM, TEM)
Air - Fiber Counting (PCM, TEM)
Water - TEM

Examination For:

Lead in Paint
Lead Paint in Soil
Lead in Dust Wipes

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES September 30, 2016 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH
DATED AT HARTFORD, CONNECTICUT, THIS 3rd DAY OF September 2014



Registration No.

PH-0170

SUZANNE BLANCAFLOR, MS
CHIEF, ENVIRONMENTAL HEALTH SECTION