

MORTIMER RESIDENCE

Limited Hazardous Materials Building Inspection Report

Storm Sandy Residential Rehabilitation Project

41 James Street

Milford, Connecticut

Connecticut Department of Housing Application No. 5088

Lothrop Associates Project No. 1524-39

Lothrop Associates, LLP

White Plains, New York

December 2014



Fuss & O'Neill EnviroScience, LLC

56 Quarry Road

Trumbull, CT 06611

Table of Contents

Limited Hazardous Materials Building Inspection Report Lothrop Associates, LLP 41 James Street, Milford, Connecticut

1	Introduction	1
2	Asbestos Inspection.....	1
2.1	Methodology	2
2.2	Results	3
2.3	Discussion	4
2.4	Conclusions and Recommendations.....	4
3	Lead-Based Paint Testing	4
3.1	Methodology	4
3.2	XRF Testing Results	5
3.3	TCLP Results	5
3.4	Conclusions and Recommendations.....	5
4	Assessment of PCB-Containing Fluorescent Ballasts	6
4.1	Results	7
4.2	Conclusions and Recommendations.....	7
5	Assessment of Mercury-Containing Devices.....	7
5.1	Conclusions and Recommendations.....	7
6	Mold Visual Assessment	7
6.1	Observations.....	8
7	Airborne Radon Gas Information, Sampling and Procedure .	8
7.1	Airborne Radon Gas Facts and Health Effects.....	8
7.2	Airborne Radon Gas Sampling Methodology	9
7.3	Airborne Radon Gas Quality Assurance Procedure.....	9
7.4	Airborne Radon Gas Analytical Results	9
7.5	Conclusions and Recommendations.....	11

Table of Contents

Limited Hazardous Materials Building Inspection Report Lothrop Associates, LLP 41 James Street, Milford, Connecticut

Appendices

APPENDIX A	FUSS & O'NEILL ENVIROSCIENCE STATE INSPECTOR LICENSES AND ACCREDITATIONS
APPENDIX B	ASBESTOS SAMPLE RESULTS AND CHAIN-OF-CUSTODY FORMS
APPENDIX C	LEAD PAINT TESTING PROCEDURES AND EQUIPMENT
APPENDIX D	LEAD TESTING FIELD DATA SHEETS
APPENDIX E	TCLP SAMPLE RESULT AND CHAIN-OF-CUSTODY FORM
APPENDIX F	AIRBORNE RADON GAS SAMPLING RESULTS AND CHAIN-OF-CUSTODY FORM

1 Introduction

On December 2, 2014, and December 4, 2014, Fuss & O'Neill EnviroScience, LLC (EnviroScience) Environmental Technicians, Mr. Robert Hobbins and Mr. James Blum, performed a limited hazardous materials building inspection of the residential structure located at 41 James Street in Milford, Connecticut (the "Site"). Mr. Hobbins and Mr. Blum are State of Connecticut-licensed Asbestos Consultant - Inspectors and Licensed Lead Inspectors. The residential structure was not occupied at the time and date of the inspection and is scheduled for demolition. Refer to *Appendix A* for EnviroScience inspectors' state licenses and accreditations.

This inspection was performed in response to the planned demolition to the Site building due to damage caused by Superstorm Sandy, as identified in the *Initial Property Inspection Report* dated July 1, 2014, provided by Lothrop Associates. The limited inspection consisted of the following:

- A inspection for asbestos-containing materials (ACM) associated with the scheduled demolition of the existing residence;
- Testing of painted surfaces coated with suspect lead-based paint (LBP);
- An evaluation of fluorescent light fixtures for polychlorinated biphenyls (PCB)-containing light ballasts;
- An inventory of light tubes/lamps and devices for mercury;
- Airborne radon gas assessment; and
- A mold assessment.

2 Asbestos Inspection

A property owner must ensure that performance of a thorough inspection for ACM, prior to possible disturbance of suspect ACM during demolition, is conducted. This is a requirement of the United States (US) Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation located at Title 40 CFR, Part 61, Subpart M.

This includes Friable, Non-Friable Category I, and Non-Friable Category II ACM.

- A Friable Material is defined as material that contains greater than one percent ($>1\%$) asbestos, that when dry **can** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category I Non-Friable Material refers to material that contains greater than one percent ($>1\%$) asbestos (e.g. packings, gaskets, resilient floor coverings, asphalt roofing products, etc.) that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category II Non-Friable Material refers to any non-friable material (excluding Category I materials) that contains greater than one percent ($>1\%$) asbestos that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.

During this inspection, suspect ACM were separated into three EPA categories. These categories are: thermal system insulation (TSI), surfacing ACM, and miscellaneous ACM. TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded pipe fitting insulations. Surfacing ACM includes

all ACM that is applied by spray or trowel, or otherwise applied to an existing surface. Surfacing ACM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tiles. Samples are recommended to be collected in a manner sufficient to determine asbestos content and include homogenous building materials. The EPA NESHAP regulation does not specifically identify a minimum number of samples to be collected and analyzed, but recommends the use of sampling protocols included in EPA Title 40 CFR, Part 763, Subpart E - Asbestos Containing Materials in Schools regulation.

2.1 Methodology

Samples of suspect ACM were collected in accordance with EPA recommendations and Asbestos Hazard Emergency Response Act (AHERA) protocols. The protocols included the following:

1. Surfacing Materials (SURF) (e.g., plaster, spray-applied fireproofing, etc.) were collected in a randomly distributed manner representing each homogenous area based on the overall quantity represented by the sampling as follows:
 - a. Three samples collected from each homogenous area that is less than or equal to ($\leq$) 1,000 square feet.
 - b. Five samples collected from each homogenous area that is greater than ($>$) 1,000 square feet, but less than or equal to 5,000 square feet.
 - c. Seven samples collected from each homogenous area that is greater than ($>$) 5,000 square feet.
2. Thermal System Insulation (TSI) (e.g., pipe insulation, tank insulation, etc.) was collected in a randomly distributed manner representing each homogenous area. Three bulk samples were collected as representative of each homogeneous material type, and sent to laboratory for asbestos analysis. Also, a minimum of one sample of any patching material (less than 6 linear of square feet) applied to TSI was collected.
3. Miscellaneous Materials (MISC) (e.g. floor tile, gaskets, construction mastics, etc.) had a minimum of two samples collected as representative of each homogenous material type. Sampling was conducted in a manner sufficient to determine asbestos content of the homogenous material as determined by the Asbestos Inspector. If materials identified were of (significant) minimal quantity, only a single sample was collected.

The Asbestos Consultants – Inspectors collected samples and prepared proper chain-of-custody forms for transmission of samples to a Connecticut-licensed analytical laboratory for analysis by Polarized Light Microscopy (PLM). The sampling locations, material type, asbestos content, quantity, and sample identification are identified by bulk sample analysis in *Table 1* of the “Results” section. Suspect materials observed on the Site building that are not listed in the following table should be considered suspect ACM until sample collection and analytical results indicate otherwise. Refer to *Appendix B* for PLM analytical results for asbestos bulk samples and chain-of-custody forms.

2.2 Results

Utilizing the EPA protocol and criteria, the following materials were identified as ACM:

Table 1
Asbestos-Containing Materials

Location	Material Type	Asbestos Content	Estimated Quantity	Sample No.
Exterior Main Pitched Roof	Black Roof Patch Tar	6% Chrysotile	10 SF	1202JB26A

Note: SF = Square Feet

Utilizing the EPA protocol and criteria, the following materials were identified as **non-ACM**:

Table 2
Non-Asbestos-Containing Materials

Location	Material Type	Sample No.
Room 1	White Textured Ceiling Paint	1202JB-01A-C
Room 4	Tan 1' x 1' Ceiling Tile with Brown Glue Daub	1202JB-02A-B, 04A-B
Rear Entryway	Gray Suspended 2' x 4' Ceiling Tile	1202JB-03A-B
Rooms 1-5, Bathroom, & Rear Entryway	Sheetrock and Joint/Taping Compound	1202JB-05A-B, 06A-B, 07
	White Interior Siding Caulking Compound	1202JB-08A-B
Rear Entryway	Brown Particle Board	1202JB-09A-B
Bathroom	Brown Wall Panel with Tan Glue	1202JB-10A-B, 11A-B
	White Ceramic Wall Tile with Gray Thinset & Grout	1202JB-12A-B, 13A-B, 14A-B
Rooms 1-5, Bathroom, & Rear Entryway	Black/Tan Paper Backing on Fiberglass Insulation	1202JB-15A-B
Rear Entryway	Silver Paper Backing on Fiberglass Pipe Insulation	1202JB-16A-B
Bathroom	Gray 4" Cove Base with Yellow Glue	1202JB-17A-B, 18A-B
	Gray Sheet Flooring with Yellow Glue	1202JB-19A-B, 20A-B
Rooms 1-5, Bathroom, & Rear Entryway	Brown & Black Speckled Padded Paper on Plywood Floor	1202JB-21A-B
Exterior Main Pitched Roof	Black Roof Base Sheet	1202JB22-A-B
	Top & Bottom Layer Asphalt Shingles	1202JB23A-B, 24A-B

Location	Material Type	Sample No.
Exterior Rear Entryway	Black Corrugated Roof	1202JB25A-B
Building Exterior	Black Paper Behind Exterior Siding	1202JB27A-B
	Gray Exterior Window Glazing Compound	1202JB28A-B
	Gray Skim Concrete Over Concrete Block	1202JB29A-B
	Gray Foundation Concrete Block with Grout	1202JB30A-B, 31A-B

2.3 Discussion

The EPA defines any material that contains greater than one percent (> 1%) asbestos, utilizing PLM as ACM. Materials that are identified as “none detected” are specified as not containing asbestos.

2.4 Conclusions and Recommendations

The non-friable black roof patch tar material identified in *Section 2.2 - Table 1* has been de-regulated by CTDPH. The identified non-friable roofing material can be removed either by a CTDPH-licensed Asbestos Abatement Contractor, or by a professional roofing contractor provided that they adhere to all Occupational Safety and Health Administration (OSHA) training requirements and EPA NESHAP regulations. Asbestos waste must be properly sealed (leak/airtight containers) and disposed in a landfill approved to accept asbestos waste. A CTDPH-licensed Asbestos Abatement Contractor is only required should the ACM be made friable and become a regulated asbestos-containing material (RACM) by work activities. All applicable CTDPH regulations shall apply if the material becomes RACM.

3 Lead-Based Paint Testing

EnviroScience conducted a limited testing-screen testing for surfaces coated with LBP within the Site structure scheduled for demolition. On December 2, 2014, Mr. Hobbins and Mr. Blum performed the testing. The purpose of this testing was to identify patterns and trends in the painting history of the buildings to determine if the EPA Toxicity Characteristic Leaching Procedure (TCLP) analysis is required for demolition debris prior to off-site disposal. The EPA has determined that if the result of the sample analysis is greater than 5.0 milligrams per liter (mg/L), the waste is characterized as toxic waste.

3.1 Methodology

A direct reading X-ray fluorescence (XRF) analyzer was used to perform the testing. The testing was conducted in accordance with the protocol outlined in the attached document: “Testing Procedures and Equipment” (refer to *Appendix C*).

For the purpose of this testing, various interior and exterior building components representing the initial painting history of the building, and any building-wide repainting by the owners/managers of these building components were tested. Individual repainting efforts are not discoverable in such a limited testing program.

The main structure was constructed of wood siding with wood window and metal door systems. The interior is composed of sheetrock, wood walls and ceilings, with wood subfloors. There were no children under the age of six present within the residence at time of the inspection.

3.2 XRF Testing Results

The testing indicated consistent painting trends throughout the building interior and exterior. The following painted building components were determined to contain toxic levels of lead (greater than 1.0 milligrams of lead per square centimeter [mg/cm²] of paint):

Table 3
Lead-Painted Building Components

Building Component	Location	Reading (mg/cm²)	Defective?
White Wood Ceiling	Room 1	1.1	No
White Metal Exterior Door	Building Exterior	1.1	No

The lead testing field data sheets and diagrams are provided as *Appendix D* of this report.

3.3 TCLP Results

On December 2, 2014, Mr. Blum collected a representative sample of the anticipated demolition debris for TCLP analysis to determine waste management options. EPA has determined that if the result of the analysis is more than 5.0 milligrams per liter (mg/L), the waste is characterized as hazardous and must be disposed as such.

The analytical result of the anticipated waste debris sample using the TCLP method indicated the waste would leach lead at less than 0.10 mg/L, which is below the EPA Resource Conservation and Recovery Act (RCRA) disposal standard of 5.0 mg/L. Refer to *Appendix E* for TCLP sample analytical result and chain-of-custody form.

3.4 Conclusions and Recommendations

The following building components were determined to be coated with toxic levels of lead in paint:

- White Wood Ceiling; and
- White Metal Exterior Door

The building components coated with LBP should not be subject to dust-generating activities such as sanding, grinding, sawing, etc. Also, materials should not be cut with a torch.

The laboratory results of the TCLP sample indicate lead leaches at a concentration below the EPA hazardous waste characterization standard of 5.0 mg/L. Therefore, the waste may be disposed as general construction and demolition debris. Metal building components coated with LBP can be segregated from the general demolition waste stream and recycled along with other metal components of the Site building.

OSHA has not established a level of lead in a material below which Title 29 CFR, Part 1926.62 ("Lead in Construction") does not apply. The Contractor shall comply with exposure assessment criteria, interim worker protection, and other requirements of the regulation as necessary to protect workers and building occupants.

An unoccupied property slated for demolition is exempt under the Department of Housing and Urban Development (HUD) Lead-Safe Housing Rule Title 40 CFR, Part 3511. Therefore, a comprehensive lead paint test was not performed within the Site structure.

4 Assessment of PCB-Containing Fluorescent Ballasts

Fluorescent light ballasts manufactured prior to 1979 may contain capacitors that contain PCBs. Light ballasts installed as late as 1985 may contain PCB capacitors. Fluorescent light ballasts that are not labeled as "No-PCBs" must be assumed to contain PCBs unless proven otherwise by quantitative analytical testing. Capacitors in fluorescent light ballasts labeled as non-PCB-containing may contain diethylhexyl phthalate (DEHP). DEHP was the primary substitute to replace PCBs for small capacitors in fluorescent lighting ballasts in use until 1991. DEHP is a toxic substance, a suspected carcinogen and is listed under the EPA Resource Conservation and Recovery Act (RCRA) and the Superfund law as a hazardous waste. Therefore, Superfund liability exists for land filling both PCB and DEHP-containing light ballasts. These listed materials are considered hazardous waste under RCRA, and require special handling and disposal requirements.

On December 2, 2014, EnviroScience representative Mr. Hobbins performed a visual inspection of representative fluorescent light fixtures to identify possible PCB-containing ballasts. The inspection involved visually inspecting labels on representative light ballasts to identify dates of manufacture and labels indicating "No PCB's". Ballasts manufactured after 1991 were not listed as a PCB or DEHP-containing ballast, and not quantified for disposal. Ballasts without a label indicating "No PCB's" are presumed to be PCB waste, and must be segregated for proper removal, packaging, transport and disposal as PCB waste. Ballasts with date labels indicating manufacture prior to 1991 that indicate "No PCB's" are presumed to contain DEHP and must be segregated for proper removal, packaging, transport, and disposal as non-PCB hazardous waste. The disposal requirements are slightly varied, and costs are slightly less for DEHP than for PCB-containing light ballasts.

4.1 Results

Several of the light fixtures that were examined were labeled with neither the manufacturer's information, nor a "No PCB's" label. However during the inspection, some types of light ballasts were labeled with a "No PCB's" label. Therefore there is a mixture of assumed PCB-containing and non-PCB-containing light ballasts within the building areas inspected. .

The light ballasts observed in the building were labeled with either the manufacturer's information, or a "No PCBs" label. The light ballasts labeled with the manufacturer's information are assumed to contain PCBs and the light ballasts labeled "No PCBs" are assumed to contain DEHP.

4.2 Conclusions and Recommendations

Prior to demolition activities at the Site, the ballasts not labeled "No PCBs" should properly recycled as PCB waste, and the remaining ballast labeled "No PCBs" ballasts should be properly recycled as assumed DEHP.

5 Assessment of Mercury-Containing Devices

Fluorescent lamps/tubes are presumed to contain mercury vapor, which is a hazardous substance to both human health and the environment. Thermostatic controls and electrical switch gear may contain a vial or bulb of mercury associated with the control. Mercury-containing equipment is regulated for proper disposal by the EPA RCRA hazardous waste regulations. Mercury lamps according to the EPA are considered a universal waste requiring all fluorescent lamps/tubes to be recycled or disposed as hazardous waste.

On December 2, 2014, EnviroScience's representative Mr. Hobbins performed a visual in-place inventory of mercury amps/tubes, thermostats, and mercury switches.

5.1 Conclusions and Recommendations

No fluorescent light bulbs/tubes, thermostats, switches, or gauges were observed within accessible and visible areas of the Site structure

6 Mold Visual Assessment

On December 2, 2014, EnviroScience representatives Mr. Hobbins and Mr. Blum performed a visual assessment for the presence of suspect mold and water intrusion.

6.1 Observations

No suspected mold growth was identified on accessible/visible building materials observed within the residence at the time and date of the inspection.

7 Airborne Radon Gas Information, Sampling and Procedure

7.1 Airborne Radon Gas Facts and Health Effects

Radon is a naturally-occurring radioactive gas produced by the natural breakdown (decay) of uranium which is found in soil and rock throughout the US. Radon gas travels through soil and enters buildings through cracks and other penetrations in building foundations. Eventually the gas itself decays into radioactive particles (decay products) that can become trapped in the lungs during human respiration. As these particles in turn decay they release small bursts of radiation which can damage lung tissue and lead to lung cancer over the course of a person's lifespan.

EPA studies have determined that radon gas concentrations in outdoor air average approximately 0.4 picoCuries per liter of air (pCi/L). However, radon and its decay products can accumulate to a much higher concentration inside a building. The EPA has adopted a recommended action level of 4.0 pCi/L; equal to or above which the EPA recommends that building owners take action to reduce the level of airborne radon with the building.

Radon is a colorless, odorless and tasteless gas, and thus, the only way to know whether or not an elevated level of radon gas is present in a building is to test the air for radon gas. Each frequently occupied room that is in contact with the lowest living level of the building should be measured, as even adjacent rooms can have significantly different levels of radon.

Again, radon is a known human carcinogen. Prolonged exposure to elevated radon concentrations causes an increased risk of lung cancer. Like other environmental pollutants, there is some uncertainty about the magnitude of radon health risks. However, scientists are more certain about radon risks than risks from most other cancer-causing environmental pollutants as estimates of radon risk are based on studies of cancer in humans (underground miners). Additional studies on more typical, non-occupationally exposed, populations are underway.

EPA estimates that radon may cause about 14,000 lung cancer deaths in the US each year, with a range of 7,000 to 30,000. The US Surgeon General has warned that radon gas is the second-leading cause of lung cancer deaths after smoking, and is the leading cause among non-smokers.

7.2 Airborne Radon Gas Sampling Methodology

From November 7, 2014, to November 10, 2014, EnviroScience representative Mr. Hobbins and Mr. Blum deployed passive radon gas detection canisters in limited areas within the Site structure. The canisters were retrieved by Mr. Blum at least 48-hours, but not later than 96-hours later. The canisters were supplied by Radon Testing Corporation of America (RTCA).

It is recommended that such canisters be placed at least 20-inches from the floor and 12-inches away from exterior walls. Also, it is recommended that the canisters not be placed near drafts resulting from Heating, Ventilating, and Air Conditioning (HVAC) intakes and returns, doors, and at least 36-inches from windows. Also, canisters should not be exposed to direct sunlight, be covered up, or otherwise disturbed during the testing period. A closed building condition is also utilized for 12-hours prior to testing being conducted.

Airborne radon gas sampling results and chain-of-custody form are included in *Appendix F*.

7.3 Airborne Radon Gas Quality Assurance Procedure

EPA strongly recommends that quality assurance measurements are included in radon measurement studies. Quality assurance measurements include side-by-side canisters (duplicates), and unexposed control canisters (blanks).

Duplicates are pairs of canisters deployed in the same location, side-by-side, for the same measurement period. Duplicates are placed in at least ten percent of all sampling locations. These duplicate canisters are stored, deployed, removed, and shipped to the laboratory for analysis in the same manner as the other canisters. If either or both of the analyses in a duplicate pairing is above the EPA standard of 4.0 pCi/L the relative percent difference (RPD) between the two tests must be determined. If the allowable difference is exceeded, the test is determined to be invalid and a new duplicate test must be run. If both canister results are below the EPA standard then the RPD is not calculated since, despite any disparity, both results are below the EPA standard.

Blanks are utilized to determine whether the manufacturing, shipping, storage, and processing of the canisters has affected the accuracy of airborne radon gas sampling procedures. Blanks are unopened, unexposed canisters that are deployed with and shipped with the exposed canisters, so the processing laboratory treats them without bias. The number of blanks is at least five percent of the total number of canisters deployed, up to a maximum of 25 canisters.

7.4 Airborne Radon Gas Analytical Results

Four canisters, including one duplicate and one blank, were placed in target locations within the structure during sampling that was performed December 2, 2014, to December 4, 2014. The radon gas

concentrations in the samples collected during the assessment were determined to contain 0.1 pCi/L. The EPA threshold for radon gas is 4.0 pCi/L.

In *Table 4* below, the locations and results of quality control duplicate tests are listed for the sampling conducted from December 2, 2014, to December 4, 2014:

Table 4
Duplicate Samples Results – December 2, 2014 – December 4, 2014

Location	Canister Numbers	Radon Concentration (pCi/Liter)			Relative Percent Difference (RPD, %)
		Sample	Sample Duplicate	Sample Average	
Bathroom	2346463 & 2346476	0.1	0.1	0.1	Percent Difference Not Needed (No Concentrations Above 4.0 pCi/Liter)

Note Duplicate testing results were satisfactory.

In *Table 5* below, the locations and results of quality control blank tests are listed for sampling conducted from December 2, 2014, to December 4, 2014:

Table 5
Blank Samples Results – December 2, 2014 – December 4, 2014

Location	Canister Numbers	Radon Concentration (pCi/Liter)
Living Room	2357364	0.1

Note Blank testing results were satisfactory

In *Table 6* below, the locations, canister numbers, and radon concentrations are listed for the airborne radon assessment conducted from December 2, 2014, to December 4, 2014:

Table 6
Radon Sampling Results – December 2, 2014 – December 4, 2014

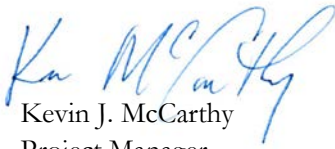
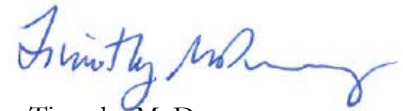
Location	Canister Numbers	Radon Concentration (pCi/Liter)
Bathroom	2346463	0.1
Living Room	2346479	0.1

7.5 Conclusions and Recommendations

During the course of the initial airborne radon gas sampling, four sampling canisters, including one duplicate and one blank, were placed in targeted locations within the Site structure. The analytical results of the samples were below EPA recommended action level of 4.0 pCi/L. No further action regarding radon gas is required.

Report prepared by Environmental Technician James Blum.

Reviewed by:


Kevin J. McCarthy
Project Manager
Timothy M. Downey
Senior Project Manager

Appendix A

Fuss & O'Neill EnviroScience State Inspector Licenses and Accreditations

0001088 FP **PRSR T5 0 0564 06040

JOHN R. HOBBS
C/O FUSS & O'NEILL ENVIROSCIENCE, LLC
146 HARTFORD ROAD
MANCHESTER CT 06040

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification
for the coming year. Should you have any questions about
your license/certificate renewal, please do not hesitate to
write or call:

Department of Public Health (860) 509-7603
P.O. Box 340308
M.S.#12MQA <http://www.dph.state.ct.us>
Hartford, CT 06134-0308

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.

4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

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

ASBESTOS CONSULTANT-INSPECTOR

JOHN R. HOBBS

LICENSE NO.
000700
CURRENT THROUGH
01/31/15
VALIDATION NO.
03-708142

COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBS

VALIDATION NO.
03-708142

LICENSE NO.
000700

CURRENT THROUGH
01/31/15

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE
COMMISSIONER

WALLET CARD

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBS

VALIDATION NO.
03-708142

LICENSE NO.
000700

CURRENT THROUGH
01/31/15

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE
COMMISSIONER

Fuss & O'Neill EnviroScience, LLC

146 Hartford Road, Manchester, CT 06040 – (860) 646-2469

This is to certify that

John Robert Hobbins

XXX-XX-6853

has successfully completed the
4 Hr. Asbestos Inspector Refresher
Asbestos Accreditation under TSCA Title II
40 CFR Part 763



John Rowinski, Principal Instructor



Robert L. May, Jr., Training Manager

September 3, 2014

Date of Course

AI-R-09/14-6

Certificate Number

September 3, 2015

Examination Date

September 3, 2015

Expiration Date

John R. Hobbins
C/O FUSS & O'NEILL ENVIROSCIENCE, LLC
146 HARTFORD ROAD
MANCHESTER, CT 06040

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification
for the coming year. Should you have any questions about
your license/certificate renewal, please do not hesitate to
write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603

<http://www.dph.state.ct.us>

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.

4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

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

John R. Hobbins

CERTIFICATION NO.
2156
CURRENT THROUGH
01/31/2015
VALIDATION NO.
DUPLICATE

COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
John R. Hobbins

VALIDATION NO. CURRENT THROUGH
DUPLICATE CERTIFICATION NO. 01/31/2015
PROFESSION
Lead Inspector

COMMISSIONER

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
John R. Hobbins

VALIDATION NO. CURRENT THROUGH
DUPLICATE CERTIFICATION NO. 01/31/2015
PROFESSION
Lead Inspector

COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

John Robert Hobbins

97 Montowese Street, Branford, CT 06405
000-00-6853

has successfully completed the

INSPECTOR REFRESHER

*Training Course
conducted by
Cardno ATC*

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

Neal B. Freuden
Principal Instructor: Neal Freuden

January 30, 2014
Date of Course

CTLIR-205
Certificate Number

January 30, 2014
Exam Date

January 30, 2015
Expiration Date

Gregory J. Morsch
Training Manager: Gregory Morsch

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

1001311 01 AV 0.378 **AUTO T6 2 1564 06040-599246 -C01-P01314-I



JAMES B BLUM
FUSS & O'NEILL ENVIROSCIENCE LLC
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear JAMES B BLUM,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

EMPLOYER'S COPY		
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH		
NAME		
JAMES B BLUM		
VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-119676	000841	11/30/15
PROFESSION		
ASBESTOS CONSULTANT-INSPECTOR		
 SIGNATURE	 COMMISSIONER	

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

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	
JAMES B BLUM	CERTIFICATE NO. 000841
	CURRENT THROUGH 11/30/15
	VALIDATION NO. 03-119676
 SIGNATURE	 COMMISSIONER

WALLET CARD		
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH		
NAME		
JAMES B BLUM		
VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-119676	000841	11/30/15
PROFESSION		
ASBESTOS CONSULTANT-INSPECTOR		
 SIGNATURE	 COMMISSIONER	

Fuss & O'Neill EnviroScience, LLC

146 Hartford Road, Manchester, CT 06040 – (860) 646-2469

This is to certify that

James Blum

XXX-XX-1625

has successfully completed the
4 Hr. Asbestos Inspector Refresher
Asbestos Accreditation under TSCA Title II
40 CFR Part 763



John Rowinski, Principal Instructor



Robert L. May, Jr., Training Manager

September 3, 2014

Date of Course

AI-R-09/14-2

Certificate Number

September 3, 2015

Examination Date

September 3, 2015

Expiration Date

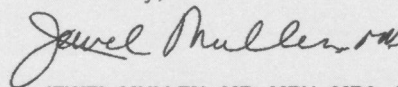
0001574 FP **PRSRT TO 0 1564 06040

JAMES B BLUM
FUSS & O'NEILL ENVIROSCIENCE LLC
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health (860) 509-7603
P.O. Box 340308
M.S.#12MQA <http://www.dph.state.ct.us>
Hartford, CT 06134-0308

Sincerely,



JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.

4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

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

JAMES B BLUM

CERTIFICATION NO.
002207
CURRENT THROUGH
11/30/14
VALIDATION NO.
03-681439


SIGNATURE
COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME

JAMES B BLUM

VALIDATION NO.

03-681439

CERTIFICATION NO.

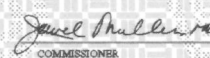
002207

CURRENT THROUGH

11/30/14

PROFESSION

LEAD INSPECTOR


SIGNATURE
COMMISSIONER

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME

JAMES B BLUM

VALIDATION NO.

03-681439

CERTIFICATION NO.

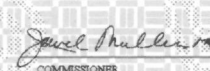
002207

CURRENT THROUGH

11/30/14

PROFESSION

LEAD INSPECTOR


SIGNATURE
COMMISSIONER

Fuss & O'Neill EnviroScience, LLC

146 Hartford Road, Manchester, CT 06040 – (860) 646-2469

This is to certify that

James Blum

XXX-XX-1625

has successfully completed the
8 Hour Lead Inspector Risk Assessor Refresher Course
(Approved per Sec. 20-477, CT General Statutes)

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S.C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State, or local requirements.



Brian Santos, Principal Instructor

February 20 & 25, 2014

Date of Course

February 25, 2014

Examination Date



Robert L. May, Jr., Training Manager

LIRA-R-02/14-3

Certificate Number

February 25, 2015

Expiration Date

Appendix B

Asbestos Sample Results and Chain-of-Custody Forms

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com>cinnasblab@EMSL.com

EMSL Order: 041435615

CustomerID: ENV154

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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
1202JB-01A 041435615-0001	Room 1 - White Textured Ceiling Paint	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-01B 041435615-0002	Room 1 - White Textured Ceiling Paint	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-01C 041435615-0003	Room 1 - White Textured Ceiling Paint	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-02A 041435615-0004	Room 4 - Tan 1'x1' Ceiling Tile	Brown/Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1202JB-02B 041435615-0005	Room 4 - Tan 1'x1' Ceiling Tile	Brown/Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1202JB-03A 041435615-0006	Rear Entryway - Gray 2'x4' Ceiling Tile	Gray Fibrous Homogeneous	50% Cellulose 20% Min. Wool	30% Non-fibrous (other)	None Detected
1202JB-03B 041435615-0007	Rear Entryway - Gray 2'x4' Ceiling Tile	Gray Fibrous Homogeneous	50% Cellulose 20% Min. Wool	30% Non-fibrous (other)	None Detected
1202JB-04A 041435615-0008	Room 4 - Brown Glue Daub on 1'x1' Ceiling Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10672, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com

cinnasblab@EMSL.com

EMSL Order: 041435615

CustomerID: ENVI54

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469

Fax: (888) 838-1160

Received: 12/04/14 9:30 AM

Analysis Date: 12/4/2014

Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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	
1202JB-04B 041435615-0009	Room 4 - Brown Glue Daub on 1'x1' Ceiling Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
1202JB-05A 041435615-0010	Room 1 - Gray Sheetrock Wall	White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)		None Detected
1202JB-05B 041435615-0011	Room 4 - Gray Sheetrock Wall	White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)		None Detected
1202JB-06A 041435615-0012	Room 1 - White Taping/ Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
1202JB-06B 041435615-0013	Room 4 - White Taping/ Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
1202JB-07 041435615-0014	Room 1 - Sheetrock & Taping/ Joint Compound- Composite	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)		None Detected
1202JB-08A 041435615-0015	Room 1 - White Interior Siding Caulking Compounds	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
1202JB-08B 041435615-0016	Room 1 - White Interior Siding Caulking Compounds	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com

cinnaslab@EMSL.com

EMSL Order: 041435615

CustomerID: ENVI54

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
1202JB-09A 041435615-0017	Rear Entryway - Brown Particle Board	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
1202JB-09B 041435615-0018	Rear Entryway - Brown Particle Board	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
1202JB-10A 041435615-0019	Bathroom - Brown Wall Panel	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
1202JB-10B 041435615-0020	Bathroom - Brown Wall Panel	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
1202JB-11A 041435615-0021	Bathroom - Tan Wall Panel Glue	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-11B 041435615-0022	Bathroom - Tan Wall Panel Glue	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-12A 041435615-0023	Bathroom - White Ceramic Wall Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-12B 041435615-0024	Bathroom - White Ceramic Wall Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com>cinnaslab@EMSL.com

EMSL Order: 041435615

CustomerID: ENVI54

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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
1202JB-13A 041435615-0025	Bathroom - Gray Ceramic Tile Thinset	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-13B 041435615-0026	Bathroom - Gray Ceramic Tile Thinset	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-14A 041435615-0027	Bathroom - Gray Ceramic Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-14B 041435615-0028	Bathroom - Gray Ceramic Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-15A 041435615-0029	Room 1 - Black/ Tan Paper Backing on Fiberglass Insulation	Brown/Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1202JB-15B 041435615-0030	Room 4 - Black/ Tan Paper Backing on Fiberglass Insulation	Tan/Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1202JB-16A 041435615-0031	Rear Entryway - Silver Paper Backing on Fiberglass Pipe Insulation	Tan/Silver Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (other)	None Detected

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com

cinnaslab@EMSL.com

EMSL Order: 041435615
 CustomerID: ENVI54
 CustomerPO: 20140370.B8E
 ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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
1202JB-16B 041435615-0032	Rear Entryway - Silver Paper Backing on Fiberglass Pipe Insulation	Silver Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
1202JB-17A 041435615-0033	Bathroom - Gray 4" Cove Base	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-17B 041435615-0034	Bathroom - Gray 4" Cove Base	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-18A 041435615-0035	Bathroom - Yellow Cove Base Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-18B 041435615-0036	Bathroom - Yellow Cove Base Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-19A 041435615-0037	Bathroom - Gray Sheet Flooring	Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
1202JB-19B 041435615-0038	Bathroom - Gray Sheet Flooring	Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
1202JB-20A 041435615-0039	Bathroom - Yellow Sheet Flooring Glue	Brown/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Brett Poulton (31)
 Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com>cinnasblab@EMSL.com

EMSL Order: 041435615

CustomerID: ENVI54

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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
1202JB-20B 041435615-0040	Bathroom - Yellow Sheet Flooring Glue	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-21A 041435615-0041	Rear Entryway - Brown & Black-Speckled Padded Paper on Plywood Floor	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-21B 041435615-0042	Rear Entryway - Brown & Black-Speckled Padded Paper on Plywood Floor	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-22A 041435615-0043	Exterior- Main Pitched Roof - Black Roof Base Sheet	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (other)	None Detected
1202JB-22B 041435615-0044	Exterior- Main Pitched Roof - Black Roof Base Sheet	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
1202JB-23A 041435615-0045	Exterior- Main Pitched Roof - Black Bottom Layer Asphalt Roof Shingle	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (other)	None Detected

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10672, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com

cinnaslab@EMSL.com

EMSL Order: 041435615

CustomerID: ENVI54

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
1202JB-23B 041435615-0046	Exterior- Main Pitched Roof - Black Bottom Layer Asphalt Roof Shingle	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (other)	None Detected
1202JB-24A 041435615-0047	Exterior- Main Pitched Roof - Black Top Layer Asphalt Roof Shingle	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (other)	None Detected
1202JB-24B 041435615-0048	Exterior- Main Pitched Roof - Black Top Layer Asphalt Roof Shingle	Black Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
1202JB-25A 041435615-0049	Exterior- Rear Entryway - Black Corrugated Roof	Black Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
1202JB-25B 041435615-0050	Exterior- Rear Entryway - Black Corrugated Roof	Black Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
1202JB-26A 041435615-0051	Exterior- Main Pitched Roof - Black Roof Patch Tar	Black Non-Fibrous Homogeneous		94% Non-fibrous (other)	6% Chrysotile
1202JB-26B 041435615-0052	Exterior- Main Pitched Roof - Black Roof Patch Tar				Stop Positive (Not Analyzed)

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com

cinnaslab@EMSL.com

EMSL Order: 041435615

CustomerID: ENVI54

CustomerPO: 20140370.B8E

ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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
1202JB-27A 041435615-0053	Exterior - Black Paper Behind Exterior Siding	Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1202JB-27B 041435615-0054	Exterior - Black Paper Behind Exterior Siding	Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1202JB-28A 041435615-0055	Exterior - Gray Exterior Window Glazing Compounds	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-28B 041435615-0056	Exterior - Gray Exterior Window Glazing Compounds	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-29A 041435615-0057	Exterior - Gray Skim Concrete Over Exterior Concrete Block	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-29B 041435615-0058	Exterior - Gray Skim Concrete Over Exterior Concrete Block	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-30A 041435615-0059	Exterior - Gray Foundation Concrete Block	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1202JB-30B 041435615-0060	Exterior - Gray Foundation Concrete Block	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com>cinnaslab@EMSL.com

EMSL Order: 041435615
 CustomerID: ENVI54
 CustomerPO: 20140370.B8E
 ProjectID:

Attn: **Kevin McCarthy**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 12/04/14 9:30 AM
 Analysis Date: 12/4/2014
 Collected: 12/3/2014

Project: Lothrop- Storm Sandy- 41 James Street, Milford, CT / 20140370.B8E

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
1202JB-31A	Exterior - Gray Foundation	Gray Non-Fibrous		100% Non-fibrous (other)	None Detected
041435615-0061	Concrete Block Grout	Homogeneous			
1202JB-31B	Exterior - Gray Foundation	Gray Non-Fibrous		100% Non-fibrous (other)	None Detected
041435615-0062	Concrete Block Grout	Homogeneous			

Analyst(s)

Brett Poulton (31)

Nancy Stalter (30)

Stephen Siegel, CIH, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 12/05/2014 08:55:22

OrderID: 041435615


FUSS & O'NEILL
EnviroScience, LLC

0414 35615

www.fando.com

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 1 of 5
 Project Name: Lothrop - Storm Sandy - 41 James Street Project No. 20140370.B8E Date: December 3, 2014

 Site Address: 41 James Street, Milford CT Project Manager: Kevin McCarthy

Sample ID	Sample Location	Type of Material
1202JB-01A	Room 1	White Textured Ceiling Paint
1202JB-01B	Room 1	White Textured Ceiling Paint
1202JB-01C	Room 1	White Textured Ceiling Paint
1202JB-02A	Room 4	Tan 1'x1' Ceiling Tile
1202JB-02B	Room 4	Tan 1'x1' Ceiling Tile
1202JB-03A	Rear Entryway	Gray 2'x4' Ceiling Tile
1202JB-03B	Rear Entryway	Gray 2'x4' Ceiling Tile
1202JB-04A	Room 4	Brown Glue Daub on 1'x1' Ceiling Tile
1202JB-04B	Room 4	Brown Glue Daub on 1'x1' Ceiling Tile
1202JB-05A	Room 1	Gray Sheetrock Wall
1202JB-05B	Room 4	Gray Sheetrock Wall
1202JB-06A	Room 1	White Taping/Joint Compound
1202JB-06B	Room 4	White Taping/Joint Compound
1202JB-07	Room 1	Sheetrock & Taping/Joint Compound Composite
1202JB-08A	Room 1	White Interior Siding Caulking Compound

 Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 48 Hours

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

 Email Results to: KmcCarthy@fando.com
 FAX Results to: 888-838-1160

 Do Not Mail Hard Copy Report Total # of Samples: 62 FD

 Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated.

 Samples collected by: J Blum Date: 12-2-14 Time: afternoon

 Samples Sent by: _____ Date: 12-3-14 Time: 1400

 Samples Received by: AKL ENSL FX Date: 12-4-14 Time: 0930

 Shipped To: ☒ EMSL State NJ ☐ Other _____

 Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____ CN WOSHAWING

OrderID: 041435615


FUSS & O'NEILL
EnviroScience, LLC

041435615

www.fando.com

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 2 of 5

 Project Name: Lothrop - Storm Sandy - 41 James Street Project No. 20140370.B8E Date: December 3, 2014

 Site Address: 41 James Street, Milford CT Project Manager: Kevin McCarthy

Sample ID	Sample Location	Type of Material
1202JB-08B	Room 1	White Interior Siding Caulking Compound
1202JB-09A	Rear Entryway	Brown Particle Board
1202JB-09B	Rear Entryway	Brown Particle Board
1202JB-10A	Bathroom	Brown Wall Panel
1202JB-10B	Bathroom	Brown Wall Panel
1202JB-11A	Bathroom	Tan Wall Panel Glue
1202JB-11B	Bathroom	Tan Wall Panel Glue
1202JB-12A	Bathroom	White Ceramic Wall Tile
1202JB-12B	Bathroom	White Ceramic Wall Tile
1202JB-13A	Bathroom	Gray Ceramic Tile Thinset
1202JB-13B	Bathroom	Gray Ceramic Tile Thinset
1202JB-14A	Bathroom	Gray Ceramic Tile Grout
1202JB-14B	Bathroom	Gray Ceramic Tile Grout
1202JB-15A	Room 1	Black/Tan Paper Backing on Fiberglass Insulation
1202JB-15B	Room 4	Black/Tan Paper Backing on Fiberglass Insulation

 Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 48 Hours

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

 Email Results to: KmcCarthy@fando.com
 FAX Results to: 888-838-1160
Do Not Mail Hard Copy Report Total # of Samples: 62

 Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated.

 Samples collected by: SP/L Date: 12-2-14 Time: afternoon

 Samples Sent by: _____ Date: 12-3-14 Time: 1400

 Samples Received by: _____ Date: 02:01 PM 4-1-2011

 Shipped To: ☒ EMSL State NJ ☐ Other _____

 Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

 CNVNOENVIRNO
 7512

OrderID: 041435615


FUSS & O'NEILL
EnviroScience, LLC

041435215

www.fando.com

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 3 of 5
 Project Name: Lothrop - Storm Sandy - 41 James Street Project No. 20140370.B8E Date: December 3, 2014

 Site Address: 41 James Street, Milford CT Project Manager: Kevin McCarthy

Sample ID	Sample Location	Type of Material
1202JB-16A	Rear Entryway	Silver Paper Backing on Fiberglass Pipe Insulation
1202JB-16B	Rear Entryway	Silver Paper Backing on Fiberglass Pipe Insulation
1202JB-17A	Bathroom	Gray 4" Cove Base
1202JB-17B	Bathroom	Gray 4" Cove Base
1202JB-18A	Bathroom	Yellow Cove Base Glue
1202JB-18B	Bathroom	Yellow Cove Base Glue
1202JB-19A	Bathroom	Gray Sheet Flooring
1202JB-19B	Bathroom	Gray Sheet Flooring
1202JB-20A	Bathroom	Yellow Sheet Flooring Glue
1202JB-20B	Bathroom	Yellow Sheet Flooring Glue
1202JB-21A	Rear Entryway	Brown & Black-Speckled Padded Paper on Plywood Floor
1202JB-21B	Rear Entryway	Brown & Black-Speckled Padded Paper on Plywood Floor
1202JB-22A	Exterior - <i>main pitched roof</i>	Black Roof Base Sheet
1202JB-22B	Exterior	Black Roof Base Sheet
1202JB-23A	Exterior	Black Bottom Layer Asphalt Roof Shingle

 Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 48 Hours

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

 Email Results to: KmcCarthy@fando.com
 FAX Results to: 888-838-1160.

Do Not Mail Hard Copy Report Total # of Samples: 62

 Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated.

 Samples collected by: J B/L Date: 12-2-14 Time: Afternoon

 Samples Sent by: L Date: 12-3-14 Time: 02:01 PM

Samples Received by: _____ Date: _____ Time: _____

 Shipped To: ☒ EMSL State NJ ☐ Other _____

 Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

F:\P2014\0370\B8E\Lab Data\Bulk_COC_JB_2014-1203.docx

OrderID: 041435615


FUSS & O'NEILL
EnviroScience, LLC

041435215

www.fando.com

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 4 of 5
 Project Name: Lothrop - Storm Sandy - 41 James Street Project No. 20140370.B8E Date: December 3, 2014

 Site Address: 41 James Street, Milford CT Project Manager: Kevin McCarthy

Sample ID	Sample Location	Type of Material
1202JB-23B	Exterior - <i>main pitched</i>	Black Bottom Layer Asphalt Roof Shingle
1202JB-24A	Exterior <i>roof</i>	Black Top Layer Asphalt Roof Shingle
1202JB-24B	Exterior	Black Top Layer Asphalt Roof Shingle
1202JB-25A	Exterior - Rear Entryway	Black Corrugated Roof
1202JB-25B	Exterior - Rear Entryway	Black Corrugated Roof
1202JB-26A	Exterior - <i>main pitched roof</i>	Black Roof Patch Tar
1202JB-26B	Exterior	Black Roof Patch Tar
1202JB-27A	Exterior	Black Paper Behind Exterior Siding
1202JB-27B	Exterior	Black Paper Behind Exterior Siding
1202JB-28A	Exterior	Gray Exterior Window Glazing Compounds
1202JB-28B	Exterior	Gray Exterior Window Glazing Compounds
1202JB-29A	Exterior	Gray Skim Concrete Over Exterior Concrete Block
1202JB-29B	Exterior	Gray Skim Concrete Over Exterior Concrete Block
1202JB-30A	Exterior	Gray Foundation Concrete Block
1202JB-30B	Exterior	Gray Foundation Concrete Block

 Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 48 Hours

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

 Email Results to: KmcCarthy@fando.com
 FAX Results to: 888-838-1160.

 Do Not Mail Hard Copy Report Total # of Samples: 62

 Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated.

 Samples collected by: JB/Lm Date: 12-2-14 Time: Afternoon

 Samples Sent by: I Date: 12-3-14 Time: 1400

Samples Received by: _____ Date: _____ Time: _____

 Shipped To: ☒ EMSL State NJ ☐ Other _____

 Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

 17 DEC 2014 10:02 AM
 CN WASHINGTON
 TSND



FUSS & O'NEILL
EnviroScience, LLC

041435215

www.fando.com

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 5 of 5

Project Name: Lothrop - Storm Sandy - 41 James Street Project No. 20140370.B8E Date: December 3, 2014

Site Address: 41 James Street, Milford CT Project Manager: Kevin McCarthy

[illegible]

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 48 Hours

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____. Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

Email Results to: KmcCarthy@fando.com
FAX Results to: 888-838-1160.

Do Not Mail Hard Copy Report Total # of Samples: **62**

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated.

unless indicated.

Samples collected by: J. Blum Date: 12-2-14 Time: Afternoon

Samples Sent by: L Date: 12-3-14 Time: 1400

Samples Received by: _____ Date: 07-01-11 Time: 5:10 PM

Shipped To: ☒ EMSL State NJ ☐ Other _____

Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

CH'NOSHING NY

Appendix C

Lead Paint Testing Procedures and Equipment

STANDARD OPERATING PROCEDURES LEAD-BASED PAINT LIMITED SCREENINGS

TESTING PROCEDURES AND EQUIPMENT

The U. S. Department of Housing and Urban Development (HUD) "Guidelines for the Evaluation and Control of Lead Hazards in Housing, September 1997," were consulted for this lead paint screening. HUD has been the agency at the federal level with responsibility for the establishment of national lead-based paint standards for testing and abatement. The HUD document will be referenced as the Guidelines in this document. The HUD Guidelines are specific to child occupied dwelling units or target housing and are not wholly applicable to limited screenings. Additionally, most New England States have regulations and standards with regard to lead paint testing and abatement in child occupied facilities. EnviroScience shall consult these regulations and standards prior to beginning testing. Some states have reporting requirements if certain threshold values for lead paint are found and certain conditions exist. EnviroScience reports any specific testing results required by State laws as licensed inspectors and consultants in these circumstances.

This lead evaluation was a Lead Based Paint Limited Screening. Both the proposed scope of work and the final report will note this type of evaluation was done. A Lead Paint Limited Screening is performed in order to determine through representative testing the lead paint history of a property. However, conclusions about untested areas cannot be reliably determined based on the limited testing that was done. Comprehensive inspections involve testing of representative components in each and every room of a building. A Lead Based Paint Limited Screening is conducted in representative locations and not necessarily every room. The intent is to collect a sufficient number of readings using field instrumentation to characterize a given component or surface. Representative components are classified as testing combinations. The age and use of the functional space, component type, and substrate type are used to characterize a testing combination for purposes of a Lead Based Paint Limited Screening. Considering age of the structure inspectors determine original dates of construction and any major renovations to the original building. Interior spaces where major renovation has occurred are also treated as separate spaces. A functional space is a room or group of rooms used for similar purposes where painting is presumed to be uniform.

Inspectors perform Lead Based Paint Limited Screening on representative components ensuring randomization in the selection of components. EnviroScience utilizes a protocol of a minimum of three (3) rooms with similar building components and surfaces are comprehensively tested similar to inspections for HUD compliance or state regulated inspections. (For example, living room, kitchen, and a bedroom may be comprehensively tested in a 6-room apartment). In this protocol specific unique components are tested in any other locations in the dwelling. Inspectors shall record readings utilizing portable field instrumentation.

Conclusions in a Lead Based Paint Limited Screening are made based on consistent findings in the limited number of readings collected for a given testing combination. Inspectors conduct more readings if trends or similar findings are not found during such a limited screening process. In reporting findings and use in cost estimating, EnviroScience shall use limited screening information to extrapolate (or presume) that the untested areas have similar paint history as to those areas where limited screenings were conducted. (For example if in the three locations tested, all window sashes contained threshold values of lead paint above HUD or other State regulatory levels, then

EnviroScience would detail in the report that all such components in the dwelling should be presumed to contain lead paint or recommend them to be tested further).

Lead-based paint surfaces and components were identified by utilizing on-site x-ray fluorescence (XRF) instruments. Fuss & O'Neill EnviroScience, LLC owns and maintains XRFs for testing for lead-based paint. These instruments are four Radiation Monitoring Devices LPA-1 (RMD). Each of these instruments is operated in accordance with state and federal and manufacturer standards on the use of the instruments. State and federal protocols provide, with the exception of wall surfaces, one reading with the instrument on a representative component in each room, i.e., baseboard, chair rail, etc., as sufficient to establish the lead paint classification of all the representatives of that component type in a room. In the case of walls, because of the large spacial areas involved and the variability in lead content in paint over such large areas, the federal and state governments want a reading on each wall surface in a room. Therefore, representative testing is not permitted for walls.

The federal government has developed Performance Characteristic Sheets (PCS) for each of the types of instruments cited above. Each instrument must be calibrated in accordance with these PCSs on a 1.0-milligram lead standard. Each of EnviroScience's instruments has one of these standards assigned to it. Some of the standards were purchased directly from the government and the others from the manufacturers of the instruments.

Each of the instruments has federal government-determined positive and negative ranges for the definition of lead-based paint. XRF results are classified using either the threshold or the inconclusive range. For the threshold, results are classified as positive if they are greater than or equal to the threshold and negative if they are less than the threshold. There is no inconclusive classification when using the threshold. For the inconclusive range, results are classified as positive if they are greater than the upper limit of the inconclusive range and negative if they are less than the lower limit of the inconclusive range. The ranges for each of the types of instruments and their various operating modes are as follows:

Radiation Monitoring Device LPA Analyzer 1

30-Second Standard Mode Reading Description	Substrate	Threshold (mg/cm²)
Results corrected for substrate bias on metal substrate only.	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

Quick Mode Reading Description	Substrate	Threshold (mg/cm²)	Inconclusive Range (mg/cm²)
Readings not corrected for substrate bias on any substrate.	Brick	1.0	None
	Concrete	1.0	None
	Drywall	1.0	None
	Metal	1.0	None
	Plaster	1.0	None
	Wood	1.0	None



If a reading falls in the inconclusive range, either the lead inspector should be authorized by the client to take a paint chip sample to determine whether the final result is either positive or negative after laboratory analysis, or the result can be categorized as suspect positive and treated accordingly. If it is not confirmed with laboratory analysis, it cannot be assumed to be negative for toxic levels of lead. If it is assumed to be positive, it can either be abated as a positive if the condition of the surface and/or location of the component requires this treatment under Connecticut and/or HUD regulations, or it can be managed in place as a positive component in accordance with the requirements of Connecticut and HUD regulations.

Prior to the start of any testing, a sketch of the building is drawn, and side designations are given to help identify exactly where readings were taken. Drawings depicting the room-numbering scheme are located on the cover page(s) for the building(s) inspected. Each side of the building was labeled A, B, C, or D. The wall "A" side of the unit is generally the side of primary entrance into a dwelling, and this room is always Room 1. Areas in the units include rooms, hallways, and closets. Areas are numbered in a clockwise fashion as building construction allows. This allows the inspector to indicate which substrate surface was tested. The condition of the surface is described by a check mark in the appropriate column, under the heading "condition of surface" on the testing form.

When more than one surface type was present on a side, the component tested was indicated with a number. If two windows were present on a building side, they were numbered left to right. Closet shelves and shelf supports were numbered top to bottom.

It is understood that the room layouts presented in the report are in conformance with the conditions that exist at the time the testing is performed. EnviroScience avoids labeling a room solely by its current functional use (i.e., living room, bedroom, etc.) since this use can change over time. Similarly, room layouts can change dramatically as dwellings are renovated and additions are built, incorporating existing rooms, or existing interior walls are moved or eliminated altogether.

Appendix D

Lead Testing Field Data Sheets



LEAD INSPECTION COVER SHEET

Inspector's Information

Inspector's Name: James Blum

License Number: 2256

XRF Model: LPA-1B

Serial Number: 1377

Date of Inspection: December 2, 2014

Project Number: 20140370.B8E

Property Information

Building Address: 41 James Street

Milford

(City)

CT

(State)

(Street)

Age of Property: Built 1940

Describe Structure: The main structure was constructed of wood siding with wood window and metal door systems. The interior is composed of sheetrock and wood walls and ceiling with wood subfloors.

Are there lead hazards present? ☐ Yes ☒ No
Were lead dust wipes taken? ☐ Yes ☒ No
Were soil samples collected? ☐ Yes ☒ No
Were drinking water samples collected? ☐ Yes ☒ No

Single Family Dwelling ☒

Is there an EBL child present?
☐ Yes ☒ No ☐ Unknown

Is there a child under six years of age in the dwelling?
☐ Yes ☒ No ☐ Unknown

Multiple Family Dwelling ☐

Number of units in building: _____

Number of units tested: _____

Is there an EBL child present in the building?

☐ Yes ☐ No ☐ Unknown

If EBL child, which unit(s)? _____

Is there a child under six years of age in the building?

☐ Yes ☐ No ☐ Unknown

If child under six, which unit(s)? _____

XRF Calibration Check

Calibration Paint Film Used: ☐ NIST 1.02 mg/cm² ☒ Manufacturer's Standard 1.0 mg/cm²

Calibration Check Limits Used: ☒ RMD (0.7 to 1.3 mg/cm² inclusive)
☐ Scitec MAP4 (0.6 to 1.2 mg/cm² inclusive)

	Hour	First Reading	Second Reading	Third Reading	Average
First Check	1430	1.0	1.0	1.1	1.03
Second Check	1630	1.1	1.0	1.1	1.06
Third Check					
Fourth Check					



FUSS & O'NEILL

Prepared By

Date

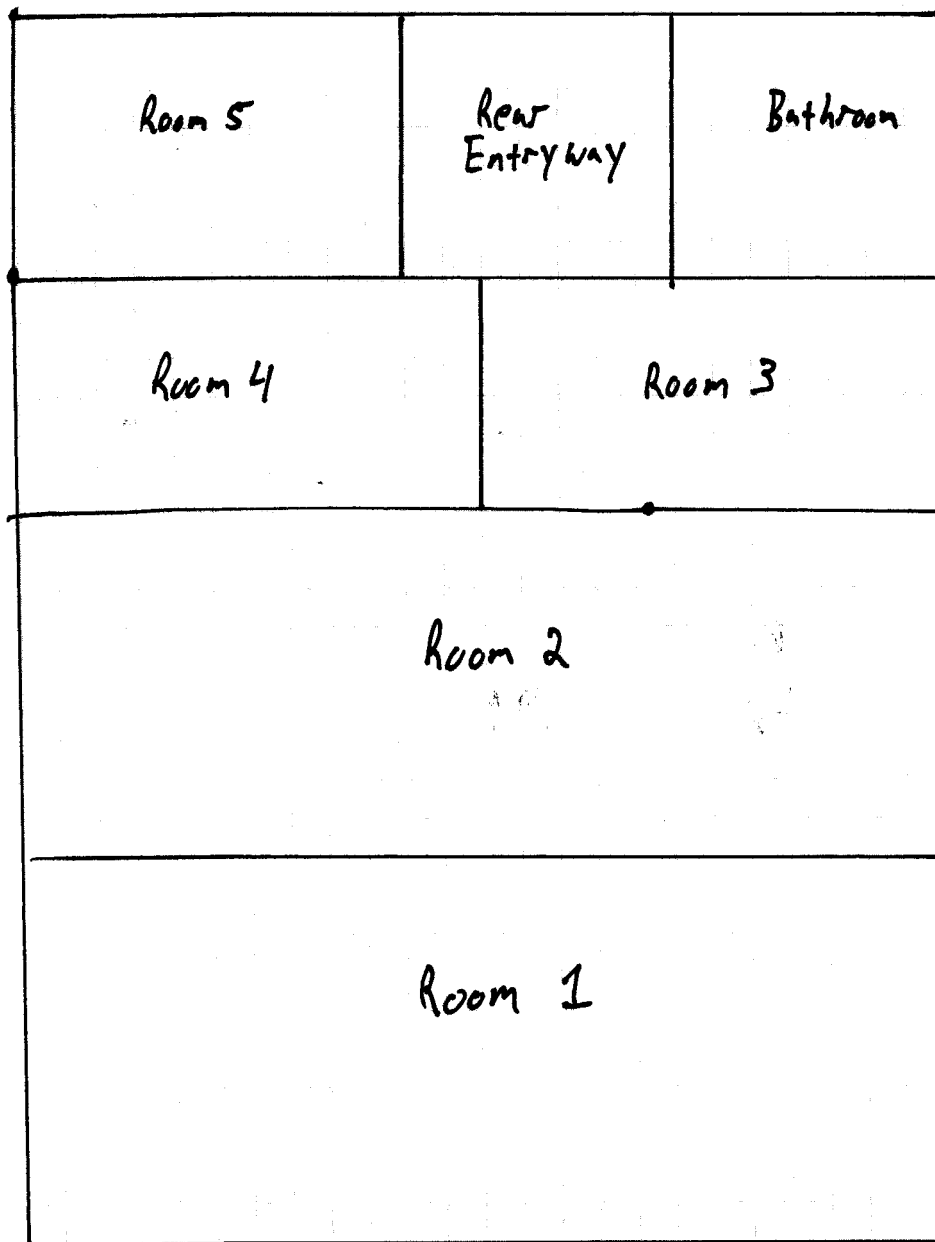
Checked By

Date

Project No

Sheet No
of

Side - C



Side - B

Side - D

Side - A

James Street



XRF FIELD DATA SHEET

Address: 41 James Street, Milford, CT

Apt. #: _____

Floor: _____ Room: _____

Page 1 of 1

Project Name: Lothrop-Storm Sandy Rehab

Project Number: 20140370.B8E

Project Manager: K. McCarthy (If Positive - Check All That Apply)

Side	Surface	XRF Readings	POS	Substrate	Color	Defective	Chewable	Friction	Impact	Comments
A	Wall	0.1		SR	Blue					
	ceiling	1.1	ENC	W	WHT.	no				VR
	Supp. column	-0.1		W	WHT					
C	Wall	-0.0		W	Blue					
	ceiling	0.1		CT	WHT.					VR CT
C	Wall	0.1		SR	Blue					
A	Wall	0.1		W	Pink/Yellow					Old wood
	Window trim	0.0		W	WHT.					
	WT	0.1		W	WHT.					Front entry
	Sill	-0.1		W	I					
	Sash	-0.1		W	I					
	WCM	0.1		W						
	Door	0.7		M	WHT.					
	DJ	0.2		I	I					
	PT	0.1		I	I					
	DT	0.1		W	WHT.					EXTERIOR
	DJ	0.1		I	I					
	Door	1.1	ENC	M	WHT.	no				
	KB	0.1	VR	W	WHT.					
	WT	-0.0		W	WHT.					
	Sill	0.0		W						
	Sash	0.2		W	I					
	WCM	0.2		W	I					
	Grading	-0.0		W	TSilver					

* Substrate Type: Metal = M, Wood = W, Plaster = P, Sheetrock = S, Concrete = C, Brick = B

N/A: Not Accessible; N/C: Not Coated; COV: Covered; VR - Vinyl Replacement

Notes: _____

Appendix E

TCLP Sample Result and Chain-Of-Custody Form



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 08, 2014

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill EnviroScience LLC
145 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: SOLID
Location Code: F&OENVIR
Rush Request: 48 Hour
P.O.#: 20140370.B8E

Custody Information

Collected by: JB
Received by: LB
Analyzed by: see "By" below

Date Time

12/02/14 14:00
12/04/14 13:01

Laboratory Data

SDG ID: GBH48969
Phoenix ID: BH48969

Project ID: LOTHROP STORM SANDY
Client ID: 20141202SB-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	12/05/14	EK	SW6010
TCLP Metals Digestion	Completed			12/05/14	I/I	SW3005
TCLP Extraction for Metals	Completed			12/04/14	I	EPA 1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
December 08, 2014

Sample Criteria Exceedences Report

GBH48969 - FOENVIR

Monday, December 08, 2014

Criteria: None

State: CT

Phoenix Analyte

SampNo Acode

Criteria

Result

RL

Criteria

RL

Analysis

Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Appendix F

Airborne Radon Gas Sampling Results and Chain-Of-Custody Form

**RADON TESTING
CORPORATION
OF AMERICA**

PC1412050073

Site Radon Inspection Report

Date : 12/05/2014

Ms. Karron Redfield
Fuss & O'Neill Enviroscience, LLC
146 Hartford Road
Manchester, CT 06040-

Client: 20140370.B8E

Test Location 41 James Street
Milford, CT 06460-

Individual Canister Results

Canister ID# : 2346463
Canister Type : Charcoal Canister 3 inch
Location : Bath
Radon Level : **0.1 pCi/L**
Error for Measurement is: $\pm$ 0.3 pCi/L

Test Start : 12/02/2014 @ 14:03
Test Stop : 12/04/2014 @ 14:05
Received: 12/05/2014 @ 13:22
Analyzed: 12/05/2014 @ 15:42

Canister ID# : 2346476
Canister Type : Charcoal Canister 3 inch
Location : Bath-D
Radon Level : **0.1 pCi/L**
Error for Measurement is: $\pm$ 0.2 pCi/L

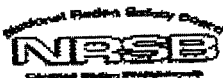
Test Start : 12/02/2014 @ 14:03
Test Stop : 12/04/2014 @ 14:05
Received: 12/05/2014 @ 13:22
Analyzed: 12/05/2014 @ 15:42

Canister ID# : 2357364
Canister Type : Charcoal Canister 3 inch
Location : Liv Rm -B
Radon Level : **0.1 pCi/L**
Error for Measurement is: $\pm$ 0.3 pCi/L

Test Start : 12/02/2014 @ 14:05
Test Stop : 12/04/2014 @ 14:08
Received: 12/05/2014 @ 13:22
Analyzed: 12/05/2014 @ 15:42

Canister ID# : 2346479
Canister Type : Charcoal Canister 3 inch
Location : Liv Rm
Radon Level : **0.1 pCi/L**
Error for Measurement is: $\pm$ 0.2 pCi/L

Test Start : 12/02/2014 @ 14:05
Test Stop : 12/04/2014 @ 14:08
Received: 12/05/2014 @ 13:22
Analyzed: 12/05/2014 @ 15:42



Andreas C. George
Andreas C. George
Radon Measurement Specialist
NJ MES 11089

Dante Galan
Dante Galan
Laboratory Director

NRSB ARL0001
NYS ELAP ID: 10806
PADEP ID: 0346
NJDEP ID: NY933
NJ MEB 90036
FL DOH RB1609
IL RNL2000201



FUSS & O'NEILL
EnviroScience, LLC

RTCA

Fax 19143458546

Dec 5 2014 03:50pm PQ01/002

Received
12-5-2014
(e)

Radon Testing Summary Sheet

Contact/Phone #: Bob Hobbins/203-374-3748 x 3526 Placed by: B. Hobbins
Project #: 20140370.B8E Retrieved by: J Blum
Building: 41 James Street Start Date: 12-2-14
Address: 41 James Street Stop Date: 12-4-14
Milford CT 06460 Weather at Placement: cloudy - 40° F

email results to jhobbins@fando.com

Instructions: Tear off center bar coded label from canister and affix to sheet in spaces provided. Please make sure top bar coded label is left on detector. Identify test location for each detector in space

REMOVE THIS PORTION AND AFFIX
TO TEST INFORMATION FORM
2348463



REMOVE THIS PORTION AND KEEP
FOR YOUR RECORDS
2348463

Client

RADON TESTING CORP. OF AMERICA
REMOVE THIS PORTION AND AFFIX
TO TEST INFORMATION FORM
2348479



REMOVE THIS PORTION AND KEEP
FOR YOUR RECORDS
2348479

Client

RADON TESTING CORP. OF AMERICA

ector (room #, location in room)
detector is missing or damaged

Start Time: 1405
Stop Time: 1405
Identifier: _____

BATH

Start Time: 1405
Stop Time: 1408
Identifier: _____

Living Room

Start Time: _____
Stop Time: _____
Identifier: _____

Start Time: _____
Stop Time: _____
Identifier: _____

Start Time: _____
Stop Time: _____
Identifier: _____

RADON TESTING CORP. OF AMERICA
Client

REMOVE THIS PORTION AND KEEP
FOR YOUR RECORDS
2348478



REMOVE THIS PORTION AND AFFIX
TO TEST INFORMATION FORM
2348478

REMOVE THIS PORTION AND AFFIX
TO TEST INFORMATION FORM
2357364



REMOVE THIS PORTION AND KEEP
FOR YOUR RECORDS
2357364

Client

RADON TESTING CORP. OF AMERICA

is necessary. Please

Start Time: 1403
Stop Time: 1405
Identifier: _____

BATH - D

Start Time: _____
Stop Time: _____
Identifier: _____

Living Room B

Start Time: _____
Stop Time: _____
Identifier: _____

Start Time: _____
Stop Time: _____
Identifier: _____

Start Time: _____
Stop Time: _____
Identifier: _____

56 Quarry Road, Trumbull, CT 06611
t (203) 374-3748
f (203) 374-4391
www.FandO.com

Connecticut
Massachusetts
New York
Rhode Island
South Carolina