

ENVIRONMENTAL REVIEW REPORT

**Community Development Block Grant – Disaster Recovery
Owner Occupied Rehabilitation and Rebuilding Program**

Applicant # 1036

**21 Tremont Street
Milford, Connecticut**

August 17, 2015

Prepared by:

**DTC
2321 Whitney Avenue
Hamden, Connecticut 06518**



Department of Economic and
Community Development

Connecticut
still revolutionary

May 13, 2013

Hermia M. Delaire
Program Manager
CDBG - Sandy Disaster Recovery Program
Department of Housing
505 Hudson Street
Hartford, CT 06106

received
5-21-14 DOH

Subject: CDBG-DR Review
Proposed Rehabilitation of
21 Tremont Street, Milford, CT

Dear Ms. Delaire:

The State Historic Preservation Office has reviewed the information submitted for the above-named pursuant to the provisions of Section 106 of the National Historic Preservation Act of 1966.

Based on the information provided, we would need additional plans and specifications in order to make a determination of effect for the project. We have determined, however, that the property is located within and contributing to the proposed East Broadway National Register District.

For further information please contact me, at (860) 256-2766 or stacey.vairo@ct.gov.

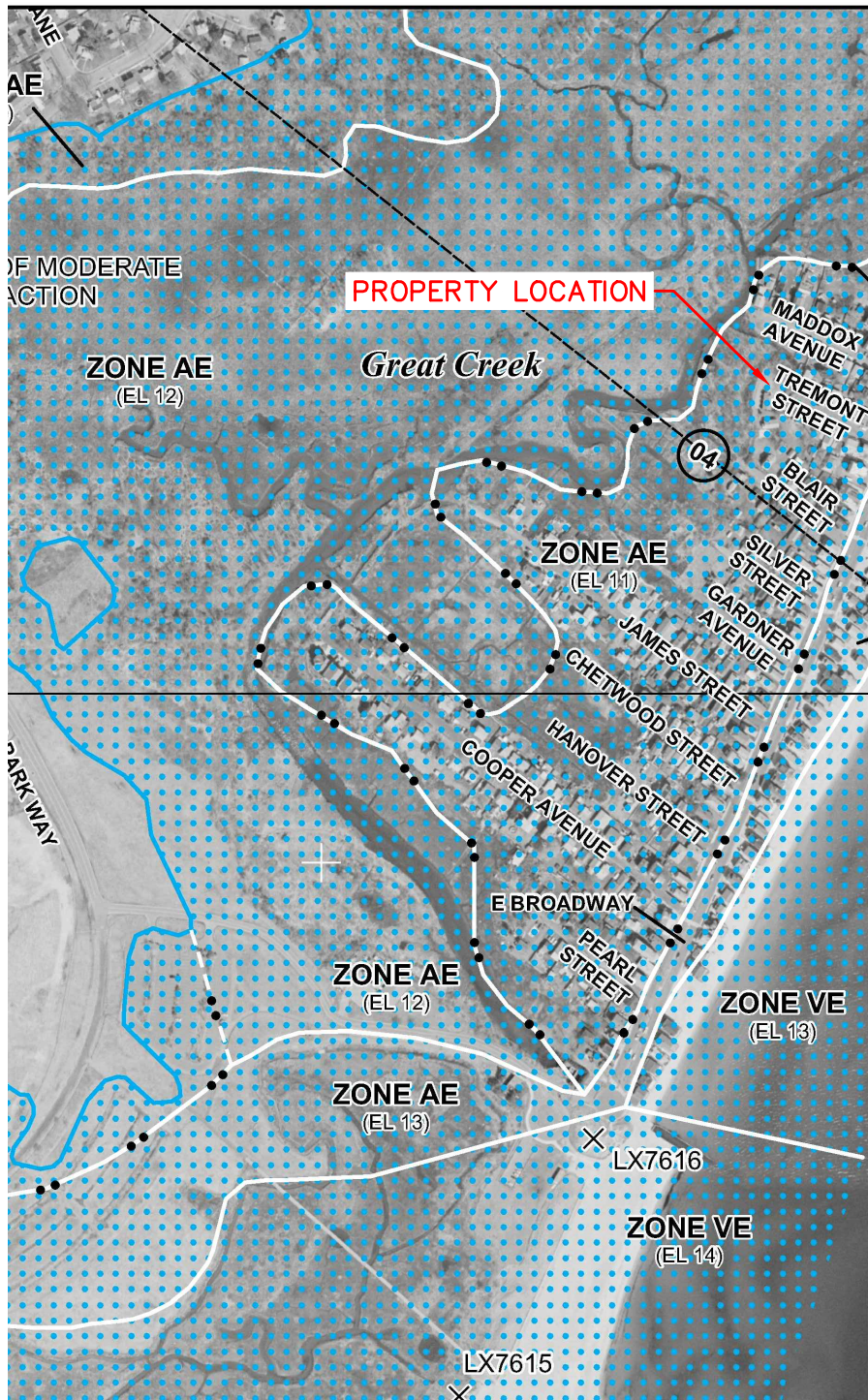
Sincerely,

Stacey Vairo
Deputy State Historic Preservation Officer

State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | P: 860.256.2800 | Cultureandtourism.org

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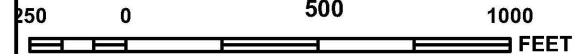
LIMIT OF MODERATE
WAVE ACTION

ZONE AE
(EL 13)

45° 63' 000m N

JOINS PANEL 0533

MAP SCALE 1" = 500'



SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO
INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

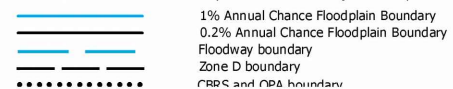


COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS



OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.



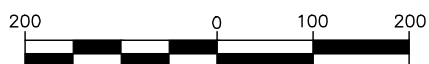
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

GRAPHIC SCALE



(IN FEET)

MAP SOURCE: FWS NATIONAL WETLANDS INVENTORY



DIVERSIFIED TECHNOLOGY CONSULTANTS
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376

DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

21 TREMONT STREET
MILFORD, CT

ATTACHMENT 3
FWS WETLANDS MAP

SCALE: 1"=200'

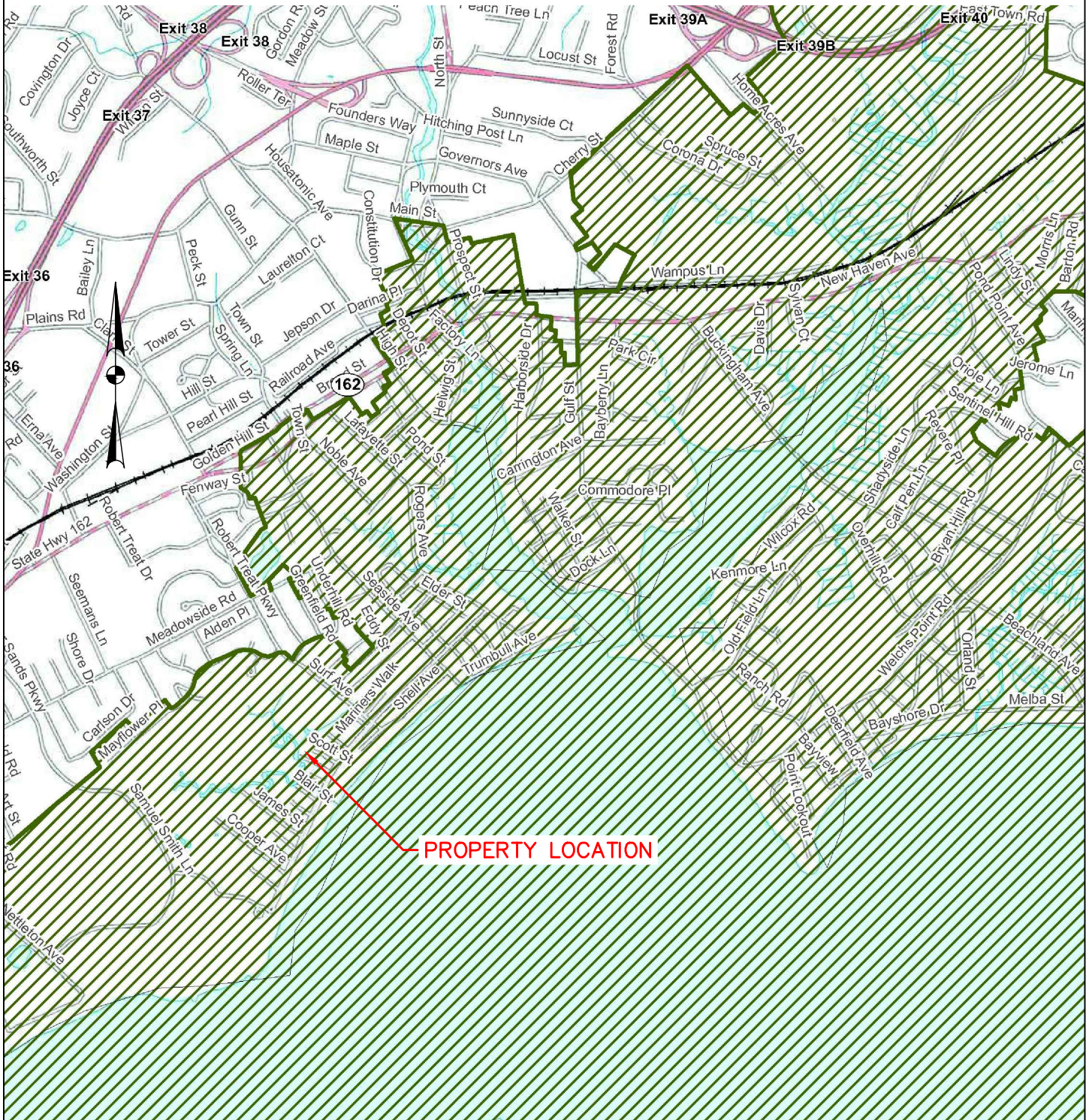
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DATE: 08/17/2015

CHECKED BY: JAB

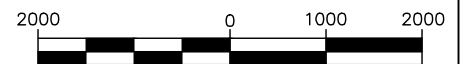
PROJECT NUMBER: 13-449-022

APPLICANT NO: 1036

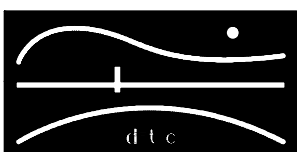


Coastal Boundary

GRAPHIC SCALE



(IN FEET)



DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

21 TREMONT STREET
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ATTACHMENT 4
CAM AREA MAP

SCALE: 1"=2000'

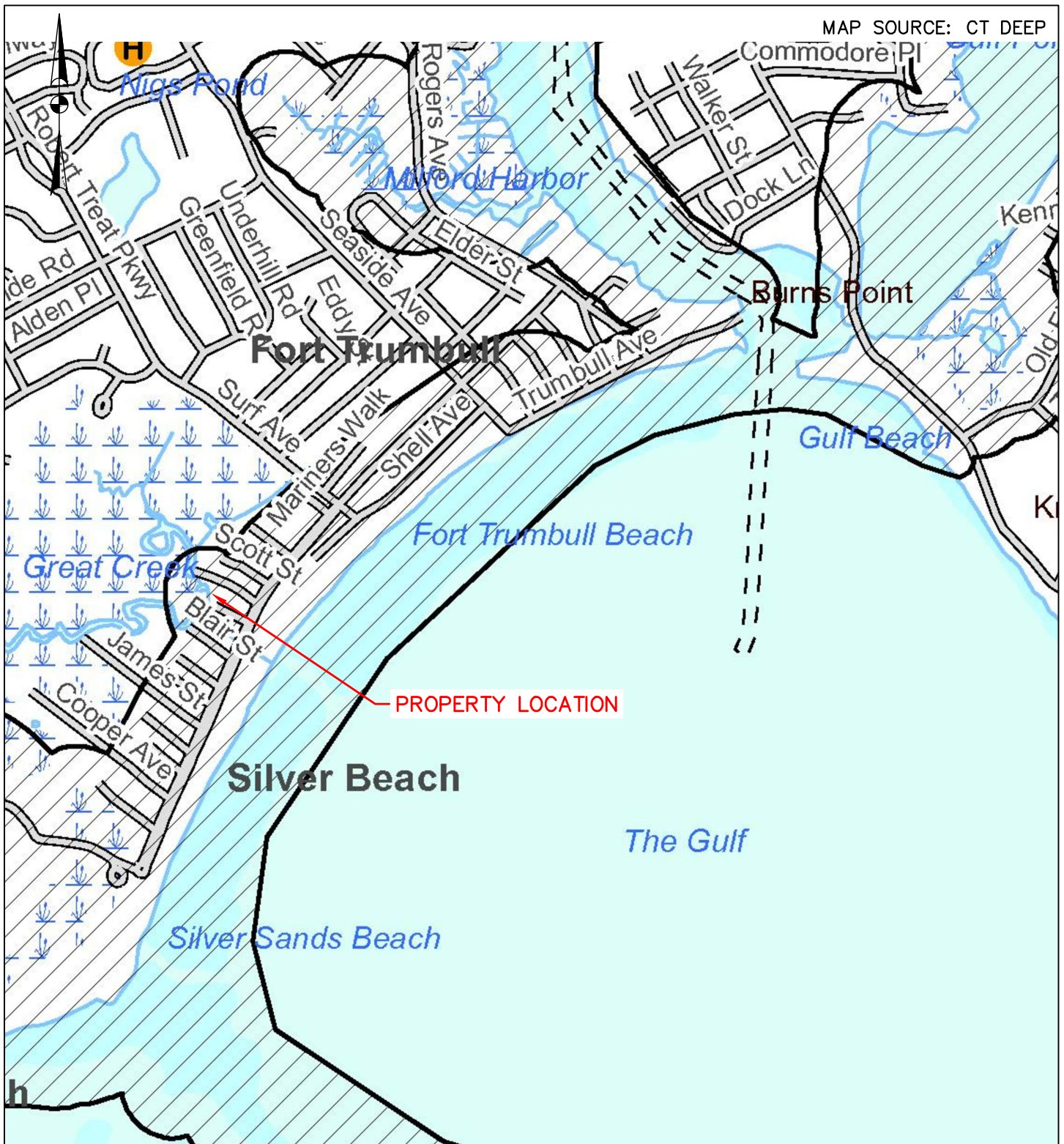
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DATE: 08/17/2015

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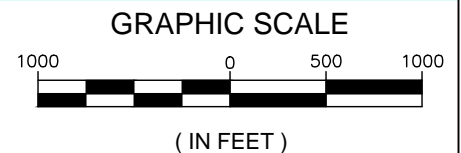
PROJECT NUMBER: 13-449-022

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MAP SOURCE: CT DEEP

 State and Federal Listed Species and Significant Natural Communities*



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DISASTER RECOVERY

21 TREMONT STREET
MILFORD, CT

ATTACHMENT 5
NDDDB AREAS

PROJECT NUMBER: 13-449-022 APPLICANT NO: 1036

SCALE: 1"=1000'	DRAWN BY: EPZ
DATE: 08/17/2015	CHECKED BY: JAB



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland

Consultation Code: 05E1NE00-2015-SLI-1625

August 17, 2015

Event Code: 05E1NE00-2015-E-02087

Project Name: 1036 Vogler

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: 1036 Vogler

Official Species List

Provided by:

New England Ecological Services Field Office

70 COMMERCIAL STREET, SUITE 300

CONCORD, NH 03301

(603) 223-2541

<http://www.fws.gov/newengland>

Consultation Code: 05E1NE00-2015-SLI-1625

Event Code: 05E1NE00-2015-E-02087

Project Type: ** OTHER **

Project Name: 1036 Vogler

Project Description: The project consists of the demolition of a single family residential home and the construction of a new single family home, of the same size, above the 500 year flood elevation.

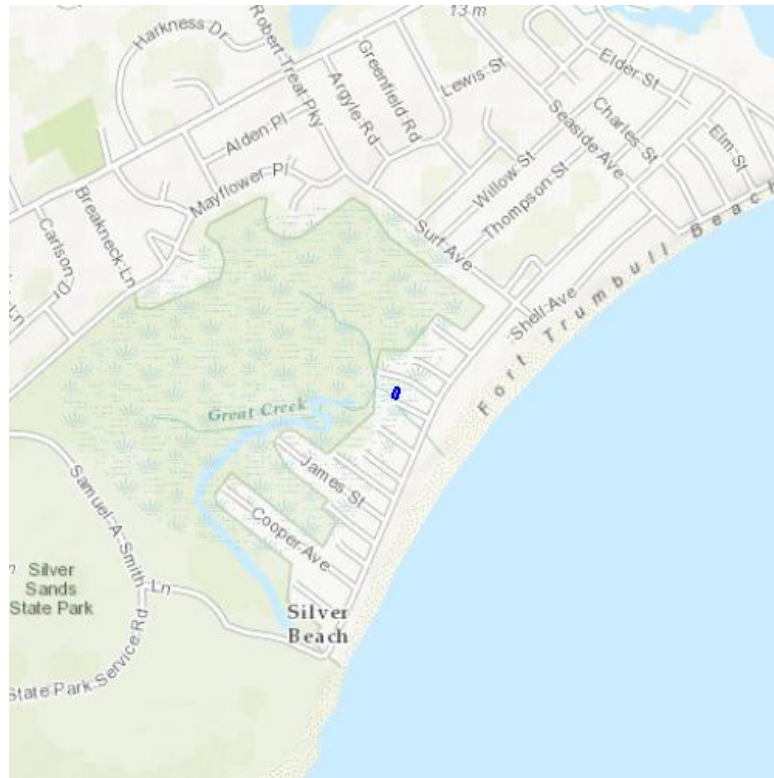
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: 1036 Vogler

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.0633145570755 41.20567598462335, -73.06320995092392 41.2058636545431, -73.06310266256332 41.205803115918116, -73.06319385766983 41.20561948174639, -73.0633145570755 41.20567598462335)))

Project Counties: New Haven, CT



United States Department of Interior
Fish and Wildlife Service

Project name: 1036 Vogler

Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red Knot (<i>Calidris canutus rufa</i>)	Threatened		
Mammals			
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		

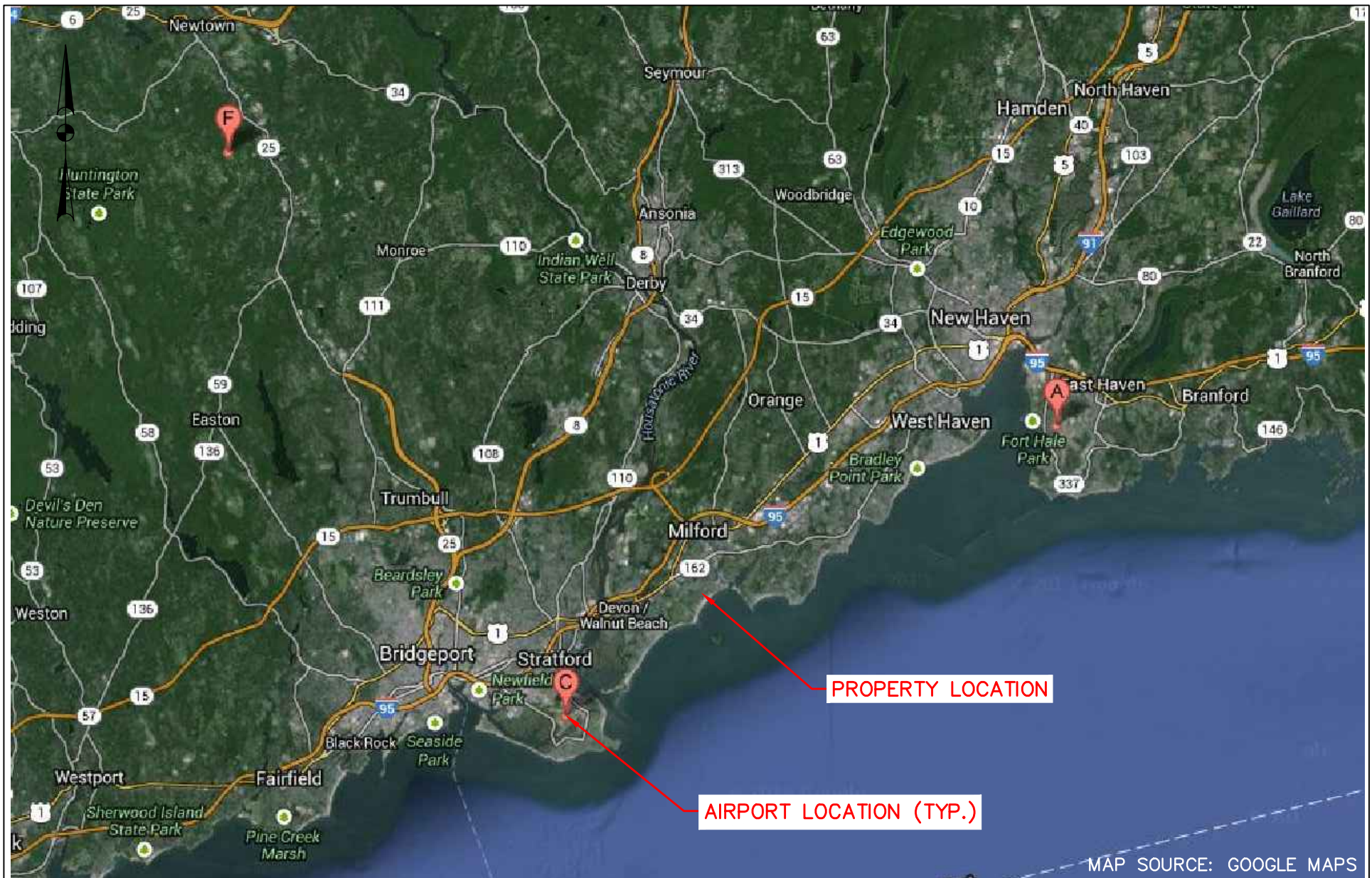


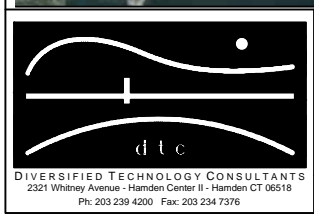
United States Department of Interior
Fish and Wildlife Service

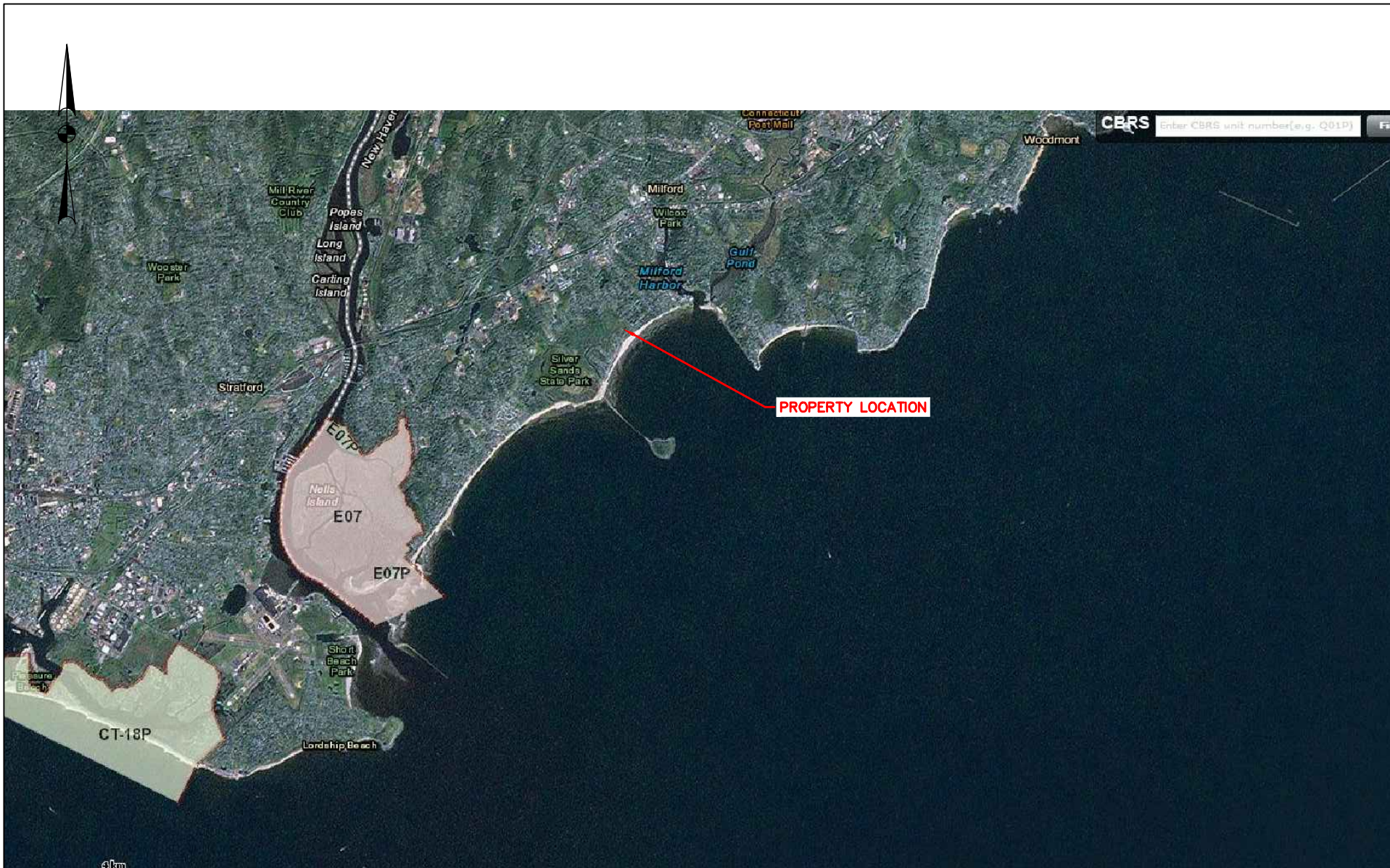
Project name: 1036 Vogler

Critical habitats that lie within your project area

There are no critical habitats within your project area.



 <p>DIVERSIFIED TECHNOLOGY CONSULTANTS 2321 Whitney Avenue - Hamden Center II - Hamden CT 06518 Ph: 203 239 4200 Fax: 203 234 7376</p>	<p>DEPARTMENT OF HOUSING COMMUNITY DEVELOPMENT BLOCK GRANT DISASTER RECOVERY</p> <p>21 TREMONT STREET MILFORD, CT</p>		<p>ATTACHMENT 7 AIRPORT VICINITY MAP</p>	
	PROJECT NUMBER:	13-449-022	SCALE: NTS	DRAWN BY: EPZ
	APPLICANT NO:	1036	DATE: 08/17/15	CHECKED BY: JAB



MAP SOURCE: U.S. FISH AND WILDLIFE SERVICE



DIVERSIFIED TECHNOLOGY CONSULTANTS
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376

DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

21 TREMONT STREET
MILFORD, CT

ATTACHMENT 8
COASTAL BARRIER MAP

SCALE: NTS

DRAWN BY: EPZ

DATE: 08/17/15

CHECKED BY: JAB

PROJECT NUMBER: 13-449-022

APPLICANT NO: 1036

ChemScope INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610

Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

8/8/2014

SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014

PROJECT SUMMARY

Demolition or Renovation	Renovate and Raise
Scope of Inspection	Raise the dwelling above the base flood elevation; Replace the first floor windows and doors; Restore the interior walls, floors, and trim. Replace the kitchen cabinets and appliances. Replace the 1 st floor bathroom, MEP systems and wood stairs. Construct a new 2 nd Floor bathroom within existing bedroom space.
CS#	CS#183-480
Date(s) of Inspection	7/3/2014
Reports Dated	7/30/2014 and 8/8/2014
Occupied	No
Child <6 yrs residing	No
Heat on	No
Water on	No
Electricity on	No
Asbestos Inspected /Detected	Yes / No
Lead Inspected /Detected	Yes / Yes
Lead Risk Assessment Done	Yes
Mold Inspected /Detected	Yes / Yes
Radon Tested /Detected ≥ 4.0 pCi/L	No/-

Please call me if there are any questions about this report or if you need further assistance.

Thank you for calling on us.



Dan Sullivan
Vice President, Operations

Report Distribution:

Scott Feulner, DTC Scott.Feulner@teamdtc.com
Curtis Graham, DTC graham.curtis@teamdtc.com
Michael Casey, DTC michael.casey@teamdtc.com

File Location:

D(dan):\\myfilesds\\mydocuments\\DTC_2014.doc

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Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

8/8/2014

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 1 of 13**

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Appendix A: XRF Lead-Based Paint Testing Results with quality evaluation sheet, 7 pages
Appendix B: Dust Wipe and Soil Sample Analytical Data and Chain of Custody Document, 6 pages
Appendix C: Sample Location Drawings, 3 pages
Appendix D: Lead Hazardous Waste Evaluation Worksheet, 1 page(s)
Appendix E: Copy of Risk Assessor's License/Certification, 2 pages
Appendix F: Copy of Firm's Lead Activity License/Certification, 3 pages
Appendix G: Copy of XRF Training Certificate and LPA-1 Performance Characteristics Sheet, 5 pages
Appendix H: "LEAD SPEAK" – A Brief Glossary, 2 pages
Appendix I: Additional Lead and Lead Safety Resource Data, 1 page

Report Distribution:

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Curtis Graham, DTC graham.curtis@teamdtc.com
Michael Casey, DTC michael.casey@teamdtc.com

File Location:

NAS AAUM-Reports\LeadInsp\DS-RiskAssess_June2014.doc

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 2 of 13**

INTRODUCTION

EXECUTIVE SUMMARY: As a result of the Lead Hazard Risk Assessment and the limited Lead-Based Paint Testing (Assessment) conducted on 4/30/2014 and 6/20/2014, it was found that lead-based surface coatings (paint) and lead hazards were present on the subject property as of the date of the Assessment. Lead (as defined by OSHA regulations 29 CFR 1926.62) and Lead Based Paint (as defined by USC Title 15 – Chapter 53- Toxic Substance Control) was detected on surfaces and/or components within the scope of the inspection. This will require workers disturbing Lead to be properly protected and trained including personal air sampling on the workers. The concentrations determined by the personal samples will determine the level of protection required by OSHA. (Contact us for assistance with the personal samples and further interpretation. General information is contained in the recommendations to follow.) Because toxic levels of lead based paint were detected, a Hazardous Waste Evaluation was done per CT DEEP regulations to determine if the waste products from the renovation are potentially a hazardous waste. A modified “Knowledge of Process” technique used indicates that the waste from this renovation will likely **not** be considered hazardous waste. See report details for additional information. None lead soil hazards were identified. A lead dust hazard was identified on the front porch floor only.

BUILDING DESCRIPTION: The subject building is a single-family, two-story, conventional-style house totaling approximately 1100 sq ft, which was built in 1920 of wood-frame construction. Heat was supplied from a boiler in the mechanical room. The boiler, which is disconnected (and currently in the Kitchen), appears to have been less than 15 yrs old. There is a crawlspace under the first floor space. At the time of our inspection the heat, electricity and water were not in service and the house was unoccupied. At the time of our screening, there were no children under the age of six residing at this subject house and the house was not being used as a daycare facility.

BACKGROUND: We understand the subject house suffered damage as a result of hurricane Sandy on October 29-30, 2012. The house is scheduled to be renovated and raised. We understand the water from the storm reached just above the floor level. We understand the scope of the renovations to be as follows: raising the dwelling above the base flood elevation; replacing the first floor windows and doors; restoring the interior walls, floors, and trim. Replacing the kitchen cabinets and appliances. Replacing the first floor bathroom, MEP systems and wood stairs. On the second floor, construct a new bathroom within existing bedroom space.

SCOPE OF OUR WORK: Our work would include the following:

- A Lead Hazard Risk Assessment and a hazardous waste evaluation.
- XRF Screening of Lead Based Paint of representative painted surfaces on the 1st floor as directed by our client.
- A report of the findings with site drawings.

Lead paint chip and TCLP sampling are not in our scope of work.

This investigation and information provided in this report depends partly on background information provided by the client. This report is intended for the use of the client. The scope of services performed may not be appropriate for other users and any use of this report by third parties is at their sole risk. This report is intended to be used in its entirety. No excerpts may be taken to be representative of this report.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 3 of 13**

INTRODUCTION (cont)

QUALIFICATIONS: The Inspection was conducted by Daniel P. Sullivan, CT DPH Certified DPH Lead Inspector/Risk Assessor #002131, Radiation Safety Training, RMD 12/2/94. Dan was assisted by Leigh Honorof. Chem Scope's DPH lead license # is CC000164.

METHOD OF TESTING: Spectrum Analyzer XRF (x-ray fluorescence). Instrument used: RMD LPA-1, Serial # 1647 in Quick Mode. The unit source (Cobalt 57) for unit 1647 was replaced November 2nd, 2012. The XRF detects paint in all layers down to the painted substrate. In other words if lead paint is painted over with new paint, the lead paint is still detected by this procedure. When paint is covered with metal or plastic trim such as siding or by carpet, the lead paint is usually not detectable. This instrument is registered with the State of Connecticut Dept of Energy and Environmental Protection and is Generally Licensed under the NRC. This is one of the two methods, which are approved under the CT Dept of Public Health (DPH) regulations. This is a non-destructive test.

The dust and soil samples were sent for analysis to Eastern Analytical Services (EAS), an AIHA accredited Laboratory and a CT DPH approved Environmental Laboratory in regards to this test, using Atomic Absorption analysis.

TEST PARAMETERS FOR XRF TESTING USING THIS INSTRUMENT: OSHA 1926.62
Definition: Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds. XRF readings of 1.0 mg/cm² or higher are lead based paint as defined by USC Title 15 – Chapter 53- Toxic Substance Control and XRF reading with any detectable amount of lead detected are defined as Lead by OSHA standard 1926.62.

XRF CALIBRATION CHECK: Standard Reference Material (SRM) paint film nearest to 1.0 mg/cm² within the National Institute of Standards and Technology (NIST) SRM is used to Calibrate the XRF. Calibration Readings are taken at the beginning and end of a job and every four (4) hours during the job with three (3) readings per set. The expiration date of the standard used is 7/1/20.

QUALITY CONTROL PROCEDURES: The XRF is used in accordance with Manufacturer's Performance Characteristics Sheet and instructions. See test data attached for details. Ten (or if <10, then the total number of tests conducted) testing combinations for re-testing from each unit are selected and checked in either 15 second or 60 second readings.

STATEMENT ON ACCURACY: The XRF Calibration checks were acceptable with each of the three (3) readings before, during (if applicable) and after the testing between 0.7 mg/cm² and 1.3 mg/cm². See attached XRF data sheets for documentation of proper calibration check sequence.

REPORT CONVENTIONS: Rooms are sometimes given arbitrary numbers to avoid ambiguity. Please refer to the enclosed schematic drawings of the site. Samples are referenced by the side of the building they are facing, as indicated on the drawings. Side A is the street side (front), Side B is the left side, Side C is the rear and Side D is the right side.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
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SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 4 of 13**

INTRODUCTION (cont)

ONGOING MONITORING: Ongoing monitoring is necessary in all dwellings in which LBP is known or presumed to be present. At these dwellings, the very real potential exists for LBP hazards to develop. Hazards can develop by means such as, but not limited to: the failure of lead hazard control measures; previously intact LBP becoming deteriorated; dangerous levels of lead-in-dust (dust lead) re-accumulating through friction, impact, and deterioration of paint; or, through the introduction of contaminated exterior dust and soil into the interior of the structure. Ongoing monitoring typically includes two different activities: re-evaluation and annual visual assessments. A re-evaluation is a risk assessment that includes limited soil and dust sampling and a visual evaluation of paint films and any existing lead hazard controls. Re-evaluations are supplemented with visual assessments by the Client, which should be conducted at least once a year, when the Client or its management agent (if the housing is rented in the future) receives complaints from residents about deteriorated paint or other potential lead hazards, when the residence (or if, in the future, the house will have more than one dwelling unit, any unit that turns over or becomes vacant), or when significant damage occurs that could affect the integrity of hazard control treatments (e.g., flooding, vandalism, fire). The visual assessment should cover the dwelling unit (if, in the future, the housing will have more than one dwelling unit, each unit and each common area used by residents), exterior painted surfaces, and ground cover (if control of soil-lead hazards is required or recommended). Visual assessments should confirm that all Paint with known or suspected LBP is not deteriorating, that lead hazard control methods have not failed, and that structural problems do not threaten the integrity of any remaining known, presumed or suspected LBP.

The visual assessments do not replace the need for professional re-evaluations by a certified risk assessor. The re-evaluation should include:

1. A review of prior reports to determine where lead-based paint and lead-based paint hazards have been found, what controls were done, and when these findings and controls happened;
2. A visual assessment to identify deteriorated paint, failures of previous hazard controls, visible dust and debris, and bare soil;
3. Environmental testing for lead in dust, newly deteriorated paint, and newly bare soil; and
4. A report describing the findings of the reevaluation, including the location of any lead-based paint hazards, the location of any failures of previous hazard controls, and, as needed, acceptable options for the control of hazards, the repair of previous controls, and modification of monitoring and maintenance practices.

The first reevaluation should be conducted no later than two years after completion of hazard controls, or, if specific controls or treatments are not conducted, two years from the beginning of ongoing lead-based paint monitoring and maintenance activities. Subsequent reevaluations should be conducted at intervals of two years, plus or minus 60 days. If two consecutive reevaluations are conducted two years apart without finding a lead-based paint hazard, reevaluation may be discontinued.

Please refer to your community development agency, housing authority, or other applicable agency for additional local/regional regulations and guidelines governing re-evaluation activities.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 5 of 13**

INTRODUCTION (cont)

DISCLOSURE REGULATIONS: A copy of this complete report must be made available to new lessees (tenants) and/or must be provided to purchasers of this property under Federal law before they become obligated under any future lease or sales contract transactions (Section 1018 of Title X – found in 24 CFR Part 35 and 40 CFR Part 745), until the demolition of this property. Landlords (Lessors) and/or sellers are also required to distribute an educational pamphlet developed by the EPA entitled “*Protect Your Family From Lead in Your Home*” and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from LBP hazards.

FUTURE REMODELING PRECAUTIONS: It should be noted that during this Assessment, a limited number of areas were tested for the presence of LBP. All LBP, dust, and soil hazards that were identified are addressed in this report. However, LBP, dust lead hazards, and/ or soil lead hazards may be present at other locations of the property. Additional paint testing should precede any future remodeling activities that occur at any untested areas. Additional dust and/or soil sample collection and analysis should follow any hazard control activity, repair, remodeling, or renovation effort, and any other work efforts that may in any way disturb LBP and/or any lead containing materials. These Assessment activities will help the Client and owner to ensure the health and safety of the occupants and the neighborhood. Details concerning lead-safe work techniques and approved hazard control methods can be found in the HUD publication entitled: “*Guidelines for the Evaluation and Control of LBP Hazards in Housing*” (www.hud.gov/offices/lead). Remodeling, repair, renovation and painting at the residence beyond the scale of minor repair and maintenance activities must be conducted in accordance with the EPA’s Lead Repair, Renovation, and Painting Rule (within 40 CFR part 745); see the EPA’s website on the RRP Rule at <http://www.epa.gov/lead/pubs/renovation.htm> for the scope and requirements of that Rule. Lead-based paint abatement or lead-based paint hazard abatement at the residence must be conducted in accordance with the EPA’s Lead Abatement Rule (also within 40 CFR 745); see the EPA’s website for Lead Abatement Professionals at <http://www.epa.gov/lead/pubs/traincert.htm>.

CONDITIONS & LIMITATIONS: Staff of ChemScope Inc. has performed the tasks listed above requested by the our client in a thorough and professional manner consistent with commonly accepted standard industry practices, using state of the art practices and best available known technology, as of the date of the assessment. ChemScope cannot guarantee and does not warrant that this Assessment/Limited LBP Testing has identified all adverse environmental factors and/or conditions affecting the subject property on the date of the Assessment. ChemScope cannot and will not warrant that the Assessment/Limited Testing that was requested by the client will satisfy the dictates of, or provide a legal defense in connection with, any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards, including EPA’s Renovation, Repair and Painting regulation.

The results reported and conclusions reached by ChemScope are solely for the benefit of the client. The results and opinions in this report, based solely upon the conditions found on the property as of the date of the Assessment, will be valid only as of the date of the Assessment. ChemScope assumes no obligation to advise the client of any changes in any real or potential lead hazards at this residence that may or may not be later brought to our attention. Further conditions and limitations to this contracted report are included in the general terms and conditions supplied to the client with the contract for services.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 6 of 13**

INSPECTION REPORT SYNOPSIS

LOCATION NAME AND ADDRESS: Site 022 (Vogler) - Application #1036
21 Tremont Street, Milford, CT

INSPECTION DATE(S): 7/3/2014

XRF Testing Results: Limited LBP Testing, conforming with HUD regulation 24 CFR 35.930(c), (d) was accomplished at this residence on surfaces found to have deteriorated paint and/or where it was indicated to the Assessor that planned renovation would occur. No paint chip samples were taken. On 7/3/2014, a total of 135 tests (assays) were taken at a limited number of specified surfaces on the inside and outside of the residence using a x-ray fluorescence analyzer. Deteriorated paint and areas that were specified to be disturbed during the planned renovation project were tested. Lead concentrations that meet or exceed the HUD published levels identified as being potentially dangerous (e. g., greater than or equal to 1.0 milligrams per centimeter square [$> 1.0 \text{ mg/cm}^2$]) were encountered on a few interior surfaces (see list of lead based paint items listed below).

The following surface(s) and/or component(s) contained Lead as defined by OSHA regulations 29 CFR 1926.62, in addition the **items in bold are Lead Based Paint** as defined by USC Title 15 – Chapter 53- Toxic Substance Control:

Component/Description	Location	Defective
Light brown painted wooden stud column	Living Room	Yes
Dark green painted wooden studs	1-2 Dining Rm	Yes
Light brown painted hardwood floor	1-3a Kitchen	Yes
Gray painted hardwood floor	1-3a Kitchen	Yes
Brown painted wooden stud column	CL2 Boiler Rm	Yes
Yellow Painted wood walls	Stairs	Yes
Light yellow painted walls	1-4 Mechanical Rm	Yes
Light green painted wooden studs	1-5 Bathroom	Yes
Old exterior siding wall	1-5 Bathroom	Yes
Light brown painted hardwood floor	1-6 Bedroom	Yes
White painted wooden door casing and frame	Exterior – Side A	No
White and brown painted old window frames (mostly covered with vinyl and aluminum, but can be accessed behind vinyl siding/casings)	Exterior – Windows	Yes

OSHA 1926.62 Definition: Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

XRF readings of 1.0 mg/cm^2 or higher are lead based paint as defined by USC Title 15 – Chapter 53- Toxic Substance Control and XRF reading with any detectable amount of lead detected are defined as Lead by OSHA standard 1926.62.

LIMITATIONS OF SCREENING: Not all painted surfaces were tested. Consequently, if a surface was not tested assume it contains Lead until proven otherwise. See attached data sheets for a list of surfaces tested.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 7 of 13**

INSPECTION REPORT SYNOPSIS (cont)

RESIDENT QUESTIONNAIRE: A resident questionnaire was completed as part of the Assessment, to help identify particular use patterns, which may be associated with potential LBP hazards, such as opening and closing windows painted with LBP. The answers to the questionnaire were obtained during a phone interview with the owner/occupant, Beth Vogler on 8/8/2014. Following is a summary of the information obtained during the interview:

Children in the Household:	None, and none visit regularly
Children's bedroom locations:	N/A
Children's eating locations:	N/A
Primary interior play area(s):	N/A
Primary exterior play area(s):	N/A
Toy Storage:	N/A
Pets:	N/A
Children's blood lead testing history:	N/A
Observed chewed surfaces:	None
Women of child bearing age:	No
Previous lead testing:	None
Most frequently used entrances:	Side A Front Door and Side B Porch door used next frequently
Most frequently opened windows:	All of them seasonally, Side A windows most frequently
Structure cooling method:	Window air conditioning units in Living Room window and Wall A/C unit in 2 nd Floor Bedroom
Gardening – type and location(s):	Flower in front and container gardening mostly
Plans for landscaping:	Yard to be torn up to excavate around house
Cleaning regiment:	Daily
Cleaning methods:	Mopping, sweeping, dusting, vacuuming
Recently completed renovations:	None
Demolition debris on site:	N/A
Resident(s) with work lead exposure:	None
Planned renovations:	Raising the dwelling above the base flood elevation; replacing the first floor windows and doors; restoring the interior walls, floors, and trim. Replacing the kitchen cabinets and appliances. Replacing the first floor bathroom, MEP systems and wood stairs. On the second floor, construct a new bathroom within existing bedroom space.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
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INSPECTION REPORT SYNOPSIS (cont)

Building Conditions Survey

Date of Construction:	1920
Apparent Building Use:	Residential
Setting:	Residential
Front Entry Faces:	Side A, Faces South
Design:	2-Story, Conventional
Construction Type:	Wood framed, wood siding under vinyl siding
Lot Type:	Flat
Roof:	Good, no apparent roof leaks
Foundation:	Cinderblock with crawlspace (soil floor) – Note: House is scheduled to be elevated for future flood protection as part of the planned work
Front Lawn Condition:	Approx. < 10% bare soil
Back Lawn Condition:	No back lawn only gravel between house and property line fence
Drip Line Condition:	Good – no paint chips seen
Site Evaluation:	Very Good on Second Floor, Poor on First Floor due to storm damage
Exterior Structural Condition:	Exterior structural is good for the house
Interior Structural Condition:	Good
Overall Building/Site Condition:	Good except for storm damage

PAINT CONDITION SURVEY

Please Note: EPA and HUD have provided a specific definition for the term “deteriorated paint.” Deteriorated paint is defined as “any interior or exterior paint or other coating that is peeling, chipping, chalking or cracking, or any paint or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate.” This definition is most typically associated with surface conditions only. Usage of this term in describing conditions other than those associated with surface coatings are not known to be defined by EPA or HUD.

Continued

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 0.02 -- 21 TREMONT STREET, MILFORD, CT
APPLICATION # 1036, CS#183-480, 7/3/2014, Page 9 of 13**

INSPECTION REPORT SYNOPSIS (cont)

Identified Deteriorated Paint, Paint Conditions, Lead Content, & Most Apparent Cause of Deterioration:

Component/Description	Location	Most Apparent Cause of Deterioration
Light brown painted wooden stud column	1-1 Living Room	Age/ Storm Damage
Light brown painted hardwood floor	1-3a Kitchen	Age/ Storm Damage
Gray painted hardwood floor	1-3a Kitchen	Age/ Storm Damage
Yellow Painted wood walls	Stairs	Age/ Storm Damage
Light yellow painted walls	1-4 Mechanical Rm	Age/ Storm Damage
Light brown painted hardwood floor	1-6 Bedroom	Age/ Storm Damage
White and brown painted old window frames (mostly covered with vinyl and aluminum, but can be accessed behind vinyl siding/casings)	Exterior – Windows	Age/ Storm Damage

The remaining paint exhibited no apparent signs of deterioration, as of the date of the Assessment.

INTERIOR DUST SAMPLING:

A total of 7 single surface dust wipe samples were collected (and 2 blanks) in an effort to help to determine the levels of lead-containing dust on the interior window sills and floors. These samples were collected from areas most likely to be lead-contaminated if lead-in-dust is present. These samples were collected in accordance with the requirements of ASTM Standard E-1728, Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques. EPA, HUD and State of Connecticut regulations define the following as hazardous levels for lead dust in residences: floors – ≥ 40 mg/ft² (micrograms per square foot); interior window sills – ≥ 250 mg/ft². There is no EPA dust-lead hazard standard for window troughs. Please refer to *Appendix B – Dust Wipe Analytical Results* for the laboratory reports and to *Appendix I – Lead and Lead Safety Information and Resources* for a list of publications and resources addressing lead hazards and their health effects; both are located at the end of this report.

Five of the nine dust samples collected were within acceptable levels. A summary list is given below, see attached analysis reports and drawings for details. **Samples noted in bold on the following page exceeded HUD and CT-DPH standards and represent dust-lead hazards. These samples constitute dust-lead hazards in those rooms.**

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
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INSPECTION REPORT SYNOPSIS (cont)

INTERIOR DUST SAMPLING:

Sample #	Date	Location	Surface	Dust Wipe Result (ug/sq ft)	CT-DPH Standard (ug/sq ft)
183-480-1D	7/3/2014	1-1 Living Rm by Front Door, on plywood	Floor	178.1	40
183-480-2D	7/3/2014	1-2 Dining Rm by Side Door, on hardwood	Floor	67.0	40
183-480-3D	7/3/2014	1-6 Bedroom , on painted wood floor	Floor	1722.2	40
183-480-4D	7/3/2014	1-3 Kitchen , on painted wood floor	Floor	166.4	40
183-480-5D	7/3/2014	1-3 Kitchen on white painted wood window sill	Window Sill	53.8	250
183-480-6D	7/3/2014	2-1 Bedroom on white painted wood window sill	Window Sill	18.1	250
183-480-7D	7/3/2014	2-1 Bedroom on carpeted floor by window	Floor	BDL <14.3	40
183-480-8D	7/3/2014	-	Blank	BDL <14.3	-
183-480-9D	7/3/2014	-	Blank	BDL <14.3	-

SOIL SAMPLING AND LABORATORY INFORMATION: One (1) soil sample was collected at this residence in accordance with the requirements of ASTM Standard E-1727, Standard Practice for Field Collection of Soil Samples for Lead Determination by Atomic Spectrometry Techniques. The soil sample identified lead concentrations below the levels that EPA, HUD or CT-DPH identifies as hazardous. See the following table for a summary of the soil sampling results. Please refer to *Appendix C – Soil Sample Analytical Data* for the detailed analytical reports.

Sample #	Date	Location	Surface	Soil Concentration (mg/kg)	CT-DPH Standard (mg/kg)
183-480-1S	7/3/2014	Side A Garden next to Porch by Side D	Soil 2" deep	67.5	400

HAZARDOUS WASTE EVALUATION

Because toxic levels of lead were detected, a Hazardous Waste Evaluation was done to determine if the waste products from the renovation are potentially a hazardous waste.

An initial hazardous evaluation was done using a modified (for XRF data as opposed to paint chip data) "knowledge of process" technique intended to approximate the method described by the CT Department of Energy and Environmental Protection (DEEP). That method is one of six methods outlined in the CT DEEP "Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries" (11/4/94) for hazardous waste evaluation. For our modified method, data gathered during the XRF inspection is used to calculate for hazardous waste vs. other methods that require TCLP (Toxicity Characteristic Leaching Procedure) testing.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
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INSPECTION REPORT SYNOPSIS (cont)

HAZARDOUS WASTE EVALUATION (cont):

This modified method resulted in the waste being **50 mg/kg of lead**, which is considered **not** likely to be a lead hazardous waste since it is < 100 mg/kg (the threshold for this modified method).

This method is the least expensive method of hazardous waste evaluation but has limited applicability. The other methods include the following:

- Demolish and Test (TCLP test and needs to be done during the renovation or demolition)

Composite-Sample and Demolish (TCLP test done before the renovation and destructive testing required and challenging to do for renovations if we don't know what the waist stream is actually going to be in the dumpster)

RECOMMENDATIONS

Lead Hazard Control Options Lead-safe work practices and worker/occupant protection practices complying with current EPA, HUD and OSHA standards will be necessary to safely complete all work involving the disturbance of LBP coated surfaces and components. In addition, any work considered lead hazard control will enlist the use of interim control (temporary) methods and/or abatement (permanent) methods. It should be noted that all lead hazard control activities have the potential of creating additional hazards or hazards that were not present before.

Details for the listed lead hazard control options and issues surrounding occupant/worker protection practices can be found in the publication entitled: *Guidelines for the Evaluation and Control of LBP Hazards in Housing* published by HUD, the Environmental Protection Agency (EPA) lead-based paint regulations, and the Occupational Safety and Health Administration (OSHA) regulations found in its Lead in Construction Industry Standard. The associated cost estimates, unless otherwise noted, include the labor and materials to accomplish the stated activity and most additional funds typically found to be necessary to complete worker protection, site containment, and cleanup procedures. These are approximate estimates only and due to a variety of potential factors, may not accurately reflect all local cost factors. A precise estimate must be obtained from a certified LBP abatement contractor or a contractor trained in lead-safe work practices. Properly trained and/ or licensed persons, as well as properly licensed firms (as mandated) should accomplish all abatement/interim control activities conducted at this residence.

Interim controls, as defined by HUD, means a set of measures designed to temporarily reduce human exposure to LBP hazards and/or lead containing materials. These activities include, but are not limited to: component and/or substrate repairs; paint and varnish repairs; the removal of dust-lead hazards; renovation; remodeling; maintenance; temporary containment; placement of seed, sod or other forms of vegetation over bare soil areas; the placement of at least 6 inches of an appropriate mulch material over an impervious material, laid on top of bare soil areas; the tilling of bare soil areas; extensive and specialized cleaning; and, ongoing LBP maintenance activities.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
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RECOMMENDATIONS (cont)

Abatement, as defined by HUD, means any set of measures designed to permanently eliminate LBP and/ or LBP hazards. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of twenty (20) years, or these methods must have a design life of at least twenty (20) years. These activities include, but are not necessarily limited to: the removal of LBP from substrates and components; the replacement of components or fixtures with lead containing materials and/or lead containing paint; the permanent enclosure of LBP with construction materials; the encapsulation of LBP with approved products; the removal or permanent covering (concrete or asphalt) of soil-lead hazards; and, extensive and specialized cleaning activities. (EPA's definition is substantively the same.)

CT DEEP Hazardous Waste evaluation: Contractor generated waste from lead paint chips or component removal must be evaluated to determine if it is hazardous using one of the many techniques as described in the CT Department of Energy and Environmental Protection (DEEP) Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries" (11/4/94). This guidance document allows for homeowners to take up to 10 cubic yards to be disposed of as part of normal house hold waste (even if it contains lead). Under the household waste exclusion, in order for the waste to be exempt, the homeowner must have the means to dispose of it in a manner typical for routine household wastes: that is, either via curbside pickup, or by taking it themselves to their local transfer station.

EPA's RRP rule sets up requirements for firms and individuals performing renovations in pre-1978 housing and child-occupied facilities, such as schools and day cares. The RRP Rule requires that renovators be trained in the use of lead safe work practices, that renovators and firms be certified, that providers of renovation training be accredited, and that renovators follow specific work practice standards.

Because this is a pre-1978 house, contractors (including renovation, repair and painting workers, plumbers, electricians, HVAC professionals, etc.) working on this project must be EPA certified and trained in lead-safe work practices when conducting renovation, repair and painting activities that will disturb more than six (6) square feet of painted surfaces on the interior of a building or more than twenty (20) square feet on the exterior and all window replacements jobs. Additional information on this rule can be found at <http://www.epa.gov/lead/pubs/renovation.htm>.

OSHA 1926.62 (worker protection): Work that disturbs surfaces that contain Lead Based Paint (or any detectable amount of Lead) such as is the case for this work must be done according to OSHA regulation 1926.62 OSHA requires employers to conduct air sampling on workers disturbing lead to establish exposure levels to lead for those workers. The recorded levels are then compared to two different airborne concentrations in the OSHA standard: the action limit (AL) and the permissible exposure limit (PEL). Currently, the AL is set at 30 micrograms of lead per cubic meter of air (µg/m³) and the PEL is 50 µg/m³. At a minimum the following is required even for air sample results below the action level (this is known as Category 1):

- 1 Train employees
- 2 Conduct Exposure Monitoring (air sampling, as mentioned above)
- 3 Maintain Records

PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 022 – 21 TREMONT STREET, MILFORD, CT
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RECOMMENDATIONS (cont)

OSHA 1926.62 (*worker protection*)(cont):

See details below if your sampling exceeds the standards. Chem Scope, Inc could help with compliance assistance as needed.

OSHA 1926.62 – Additional Details:

Category 2: OSHA regulations require; Same as category I, plus: Provide respirator at employee request, Conduct exposure monitoring every 3 months, and Conduct blood lead monitoring when the exposure monitoring results are 30–50 ug/m³ (above the action level, but below the PEL).

Category 3: OSHA Regulations require; Same as category II, plus, enforce respirator use, enforce use of protective clothing, develop monitoring every 6 months, enforce housekeeping, provide hygiene facilities and enforce washing when the exposure monitoring results are 50 ug/m³ and over (above the PEL).

See separate Asbestos Pre-renovation Inspection report and Mold Assessment report for additional details.

If you have any questions or need more information please call me. Thank you for calling on us.

Sincerely,



Dan Sullivan
Vice President, Operations

Appendix A XRF Lead-Based Paint Testing Results

Site Name: Site 022 (Vogler) - Application #1036Date of Inspection: 7/3 /2014Site Address: 21 Tremont Street, Milford, CTCS# 183-480Customer Name: Diversified Technology Consultants (DTC)Customer Address: 2321 Whitney Avenue, Suite 301 / Hamden, CT 06518Work Area: Throughout Page 1 of 6Site Description: Single-Family Residential Year of Construction: 1920Name of Individual Doing Testing: Dan Sullivan CT DPH Lic# 2131CO-57 Date Source Installed: 11/2/2012 Software version # N/A Serial # 1647

Test #	Clock Time	NIST Calibration Standard	Results QM (mg/CM2)
1	8 ¹⁰ am	NIST SRM 2573 Red	1.0
2	8 ¹¹ am	NIST SRM 2573 Red	1.0
3	8 ¹² am	NIST SRM 2573 Red	1.0
140	10 ³⁵ am	NIST SRM 2573 Red	1.0
141	10 ³⁶ am	NIST SRM 2573 Red	1.0
142	10 ³⁷ am	NIST SRM 2573 Red	1.0
		NIST SRM 2573 Red	
		NIST SRM 2573 Red	
4	8 ¹³ am	NIST SRM 2570 White (Blank)	-0.5
143	10 ³⁸ am	NIST SRM 2570 White (Blank)	-0.4

Note: each entry represents a single test on the surface indicated.

- Acceptance limits for calibration are 0.7-1.3.
- 1.0 mg/cm² or higher = lead based paint (LBP)
- All values run under Quick Mode (QM), unless noted otherwise under comments above.
- Calibration std SRM 2573 has 1.0 mg/cm² of lead, expiration of std is 7/1/20.
- DEF under comments means the surface has defective lead based paint

INSPECTOR SIGNATURE/Date/REVIEWED BY/Date: Dan Sullivan / 7/3/14 / Pa / 8/11

Site Name: Site 022 (Vogler) - Application #1036Date of Inspection: 7/3/2014Site Address: 21 Tremont Street, Milford, CTCS# 183-480Work Area: Interiv - First Floor 1-1 Living RmPage 2 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
5 A	Int	1-Hugy Rm	Upper Wall	Y	off white	Sheetrock	-0.0	N
6 "	"	"	"	"	"	"	-0.2	N
7 B	"	"	"	Y	"	"	-0.2	N
8 "	"	"	"	"	"	"	-0.3	N
9 C	"	"	"	Y	"	"	-0.2	N
10 "	"	"	"	"	"	"	-0.3	N
11 D	"	"	"	Y	"	"	-0.2	N
12 "	"	"	"	"	"	"	-0.2	N
13 A	"	"	Window casing	Y	white	wood	-0.4	N
14 B	"	"	"	"	"	"	-0.2	N
15 "	"	"	Window sash	Y	white	wood	-0.2	N
16 "	"	"	"	"	"	"	-0.1	N
17 "	"	"	Window frame	Y	"	"	-0.2	N
18 "	"	"	"	"	"	"	-0.2	N
19 "	"	"	Window well	Y	"	"	-0.2	N
20 "	"	"	"	"	"	"	-0.3	N
21 "	"	"	door	Y	white	metal	-0.1	N
22 "	"	"	"	"	"	"	-0.2	N
23 "	"	"	door frame	Y	white	wood	-0.1	N
24 "	"	"	"	"	"	"	-0.1	N
25 "	"	"	door casing	Y	"	"	-0.0	N
26 "	"	"	Screen door	N	"	metal	-0.4	N
27 "	"	"	door threshold	Y	bram	wood	-0.2	N
28 "	"	"	Floor	N/A	unpainted	plywood	-0.1	N
29 "	"	"	ceiling	N	white	Sheetrock	-0.3	N
30 "	"	"	crack moldy	N	white	wood	-0.2	N
31 B	"	"	Stud Column	Y	lt. bram	wood	2.3	Y

Signature: L. J. SullivanDate: 7/3/14

Site Name: Site 022 (Vogler) - Application #1036Date of Inspection: 7/3/2014Site Address: 21 Tremont Street, Milford, CTCS# 183-480Work Area: Interior - 1st floorPage 3 of 6

Test #/ Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
32	B	INT	1-2 Dining Rm	Y	Lt. green	wood	-0.2	N
33	"	"	" "	Y	d/k green	"	0.3	N
34	"	"	back of siding	Y	Lt. green	"	-0.2	N
35	"	"	Upper wall	Y	offwhite	Sheetrock	-0.4	N
36	D	"	" "	Y	"	homosite	-0.0	N
37	"	"	Wall studs	Y	"	wood	-0.1	N
38	"	"	floor	Y	wood stain	hardwood	-0.2	N
39	B	"	door 2 "new"	Y	white	wood	-0.2	N
40	"	"	door 2 casing	"	"	"	-0.2	N
41	"	"	door 2 frame	"	"	"	-0.2	N
42	B	"	1-3 Kitchen	Y	Lt. brown	wood	-0.1	N
43	"	"	"	Y	Lt. yellow	"	-0.0	N
44	"	"	"	Y	Lt. green	"	-0.1	N
45	A	"	floor	Y	Lt. blue	hardwood	-0.2	N
46	B	"	"	Y	Lt. brown	"	1.0	Y
47	C	"	"	Y	gray	"	2.5	Y
48	B	"	Wall upper	Y	offwhite	Sheetrock	-0.5	N
49	D	"	"	"	"	homosite	-0.3	N
50	B	"	Window sill	Y	white	wood	-0.2	N
51	"	"	" casing	Y	"	"	-0.2	N
52	"	"	" frame	Y	"	"	-0.1	N
53	"	"	" Sash	N	"	vinyl	-0.3	N
54	"	"	" well	N	"	"	-0.4	N
55	C	"	1-3b Kitchen	N	"	"	-0.4	N
56	"	"	well	N	"	"	-0.2	N
57	"	"	frame	Y	"	wood	-0.3	N
58	"	"	Upper wall	Y	offwhite	Sheetrock	-0.2	N

Signature: [Signature]Date: 7/3/14

Site Name: Site 022 (Vogler) - Application #1036Date of Inspection: 7/3/2014Site Address: 21 Tremont Street, Milford, CTCS# 183-480Work Area: Interior 1st FloorPage 4 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
59 C	Int	C12 Boiler Rm	Upper wall	Y	white	Sheetrock	~0.1	N
60 D	"	"	"	Y	"	"	~0.2	N
61 A	"	"	"	Y	"	"	0.0	N
62 B	"	"	door frame	Y	white	wood	~0.1	N
63 "	"	"	door	N	gray	vinyl	~0.3	N
64 C	"	"	column stud	Y	brown	wood	0.4	N
65 C	"	Stairs	stair tread	N	unpainted	plywood	~0.3	N
66 "	"	"	" riser	N	"	"	0.0	N
67 "	"	"	" stringer	Y	white	wood	~0.2	N
68 "	"	"	wall	Y	yellow	wood	3.9	Y
69 "	"	"	upper wall	Y	offwhite	SR	~0.4	N
70 "	"	"	wood stud	Y	brown	wood	~0.2	N
71 C	"	C5 1-4 mechn	wall	Y	H. yellow	"	2.2	Y
72 D	"	"	"	Y	H. brown	"	~0.1	N
73 "	"	"	Floor	N	unpainted	plywood	~0.1	N
74 D	"	C5 1-5 boiler Rm	Upper wall	Y	lt. blue	Sheetrock	~0.5	N
75 A	"	"	"	Y	"	"	~0.3	N
76 B	"	"	"	Y	"	"	~0.5	N
77 "	"	"	" shower	Y	white	ceramic tile	~0.4	N
78 "	"	"	Wall stud	Y	lt. green	wood	~0.1	N
79 A	"	"	" "	Y	"	"	0.4	N
80 D	"	"	old exterior wall	Y	"	"	0.1	N
81 "	"	"	window sash	N	white	vinyl	0.0	N
82 "	"	"	" frame	Y	"	wood	0.0	N
83 "	"	"	" casing	Y	"	"	~0.2	N
84 B	"	"	door frame	Y	"	"	~0.2	N
85 "	"	"	" casing	Y	"	"	~0.0	N

Signature: L9 on delinDate: 7/3/14

Site Name: Site 022 (Vogler) - Application #1036Date of Inspection: 7/3/2014Site Address: 21 Tremont Street, Milford, CTCS# 183-480Work Area: Interior / ExteriorPage 5 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
86 A	INT	1-6 BedRm	Upper wall	Y	offwhite	Sheetrock	-0.2	N
87 B	"	"	"	"	"	"	-0.2	N
88 C	"	"	"	"	"	Handnote	-0.3	N
89 D	"	"	"	"	"	Sheetrock	-0.3	N
90 "	"	"	old wood siding wall	Y	Lt. green	wood	-0.2	N
91 B	"	"	wood stool	Y	"	"	-0.1	N
92 "	"	"	floor	Y	Lt. brown	hardwood	1.0	Y
93 D	"	"	wood soffit	N	white	vinyl	-0.6	N
94 "	"	"	" Frame	Y	"	wood	-0.3	N
95 A	"	2-1 BedRm	wall	N	offwhite	SR	-0.4	N
96 B	"	"	"	"	"	"	-0.1	N
97 C	"	"	"	"	"	"	-0.3	N
98 D	"	"	"	"	"	"	-0.2	N
99 "	"	"	baseboard	N	white	wood	-0.0	N
100 "	"	"	ceiling	"	"	SR	-0.5	N
101 "	"	"	floor	"	Lt. brown	carpet	-0.1	N
102 B	"	"	Window 2 sill	N	white	wood	0.0	N
103 "	"	"	" casing	"	"	"	-0.2	N
104 "	"	"	" Sash	"	"	vinyl	-0.5	N
105 "	"	"	" frame	N	"	wood	-0.2	N
106 C	"	"	door 2	N	white	wood	-0.6	N
107 "	"	"	door 2 casing	N	"	"	-0.3	N
108 "	"	"	door 2 frame	N	"	"	-0.0	N
109 A	EXT	1-WingRm	Screen door	N	"	metal	-0.4	N
110 "	"	"	door	N	"	"	0.2	N
111 "	"	"	door casing	N	"	Aluminum	-0.2	N
112 "	"	"	" frame	N	"	"	0.2	N

Signature: Wen AllenDate: 7/3/14

Site Name: Site 022 (Vogler) - Application #1036Date of Inspection: 7/3/2014Site Address: 21 Tremont Street, Milford, CTCS# 183-480Work Area: ExteriorPage 6 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
10 ¹⁰ 113 A	EXT	1-1 Living Rm	Window sash 3	Y	brn	wood	-0.3	N
114 "	"	"	" sill 3	N	white	Alum	-0.1	N
115 "	"	"	" casy 3	"	"	"	-0.0	N
116 B	"	"	Window sash 3	N	white	vinyl	-0.4	N
117 "	"	"	" sill 3	N	"	Alum	-0.1	N
118 "	"	"	" casy 3	N	"	"	-0.1	N
119 "	"	"	" old frame 3	Y	"	wood	-0.3	N
120 "	"	"	" " 2	Y	"	"	0.0	N
121 "	"	1-2 Dining Rm	door 2	N	"	vinyl	-0.4	N
122 "	"	"	door frame	"	"	"	-0.2	N
123 "	"	"	" casy 7	"	"	"	-0.4	N
124 "	"	1-3 Kitchen A	Window sash 1	N	"	"	-0.4	N
125 "	"	"	" sill 1	Y	"	Alum	-0.3	N
126 "	"	"	" frame 1	"	"	"	0.1	N
127 "	"	"	siding	"	gray	vinyl	-0.2	N
128 "	"	"	Window old frame	Y	white	wood	0.1	N
129 "	"	-	deck floor	Y	wood stain	wood	-0.3	N
130 "	"	-	deck handrail	Y	"	"	-0.7	N
131 C	"	1-3 Kitchen B	Window sash 2	N	white	vinyl	-0.4	N
132 "	"	"	" sill 2	"	"	Alum	-0.0	N
133 "	"	"	" casy 2	"	"	"	-0.2	N
134 "	"	"	siding	"	gray	vinyl	0.0	N
135 D	"	1-5 Bath	Window 3 old frame	Y	brn	wood	5.3	Y
136 "	"	1-6 Bed	Window 2 "	Y	white/brn	"	1.0	Y
137 "	"	1-1 Living Rm	" 1 "	Y	"	"	0.1	Y
138 "	"	"	siding	N	gray	vinyl	-0.3	N
139 A	"	"	siding	N	"	"	-0.3	N

Signature: Don AshDate: 7/3/14

EVALUATING THE QUALITY OF XRF:

Site Name: Site 022 (Vogler)
Site Address: 21 Tremont Street, Milford, CT

CS# 183-480
Date: 7/3/2014

Location	Original Reading	Retest Reading	Square of	
			Original Reading	Square of Retest Reading
1. Interior - 1-1 Living Room - Upper Wall - Side A	0.0	-0.2	0.00	0.04
2. Interior - 1-1 Living Room - Upper Wall - Side B	-0.2	-0.3	0.04	0.09
3. Interior - 1-1 Living Room - Upper Wall - Side C	-0.2	-0.3	0.04	0.09
4. Interior - 1-1 Living Room - Upper Wall - Side D	-0.2	-0.2	0.04	0.04
5. Interior - 1-1 Living Room - Window 2 Casing - Side A	-0.4	-0.2	0.16	0.04
6. Interior - 1-1 Living Room - Window 2 Sash - Side A	-0.2	-0.1	0.04	0.01
7. Interior - 1-1 Living Room - Window 2 Frame - Side A	-0.2	-0.2	0.04	0.04
8. Interior - 1-1 Living Room - Window 2 Well - Side A	-0.2	-0.3	0.04	0.09
9. Interior - 1-1 Living Room - Door - Side A	-0.1	-0.2	0.01	0.04
10. Interior - 1-1 Living Room - Door Frame - Side A	-0.1	-0.1	0.01	0.01
Sum of ten squared averages ("C"):			0.42	0.49
		"C" times 0.0072 ("D"):	0.003024	0.00353
		"D" plus 0.032 ("E"):	0.035024	0.035528
		Square root of "E" ("F"):	0.18715	0.188488726
		"F" times 1.645 (Retest Tolerance Limit):	0.3079	0.3101
Average of the ten XRF Readings:			-0.18	-0.21
		Absolute difference of the two averages:	0.0300	

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest.

Appendix B Lead in Dust and Soil Sample Analysis Reports

ChemScope INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610

Diversified Technology Consultants
2321 Whitney Avenue, Suite 301
Hamden CT 06518

Application #1036
7/16/2014
CS# 183-480

LEAD ANALYSIS BY ATOMIC ABSORPTION


Lead dust wipe and soil samples from Site 022 (Vogler), 21 Tremont Street, Milford CT, collected by ChemScope, Inc., on 7/3/2014:

See attached chain of custody and EAS Analytical Services, Inc., reports for sample descriptions and analytical data; and applicable standards on reverse side of this page.

*NOTE: The EAS Analytical Services, Inc. report provides the lead soil concentration in mg/kg which is equivalent to ppm (parts per million).

Suzanne Cristante or
Laboratory Director
SC

Izabela Kremens or
Quality Manager
IK



Ronald D. Arena
President
RDA

LEAD STANDARDS AND GUIDELINES

(Revised 4/2013)

The following are some existing known standards and guidelines as they relate to lab analysis for lead by AAS. ChemScope assumes no liability for the use of these data. All values are expressed as pure lead, Pb.

1. Lead in Dust Standards: Connecticut DPH, EPA & HUD:

Dust-Wipe Re-Occupancy Testing:

Floors: 40 micrograms/sq ft

Sills: 250 micrograms/sq ft

Window Wells: 400 micrograms/sq ft

Toxic Level of lead in dry paint: 0.5%

*NOTE: City of Stamford has a stricter standard of .06%

2. For Air Samples: OSHA PEL (Permissible Exposure Limit) is 50 micrograms/cubic meter and the AL (Action Level) is 30 micrograms/cubic meter.

3. For Soil: 400 PPM is considered contaminated.

State regulations (CT DEEP RCSA 22a-133K) require lead-contaminated soil to be cleaned up to a concentration of 500 ppm in residential areas and 1,000 ppm in industrial and commercial areas. But in practice the Department of [Energy and] Environmental Protection (DEEP) and state and local health departments apply a 400 ppm standard in residential areas. DEEP has begun the process of adopting the 400 ppm standard in regulation.

OLR Research Report, October 11, 2006, 2006-R-0596

4. For any material to be disposed of: the DEP and EPA Standard for TCLP lead is 5 milligrams/liter. In addition, other substances besides lead may need to be tested which are not in the scope of this test report.

5. Consumer Product Safety Commission: Lead in paint for sale 0.06%.

6. For Drinking Water Samples (First Draw and Fully Flushed samples):

State of Connecticut Action Level: 0.015 mg/l

EPA Action Level: 15 ppb

NOTE: .015 mg/l = 15 ppb

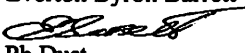


Eastern Analytical Services, Inc.

Page 1 of 1

Wipe Sample Report

RE: CPN 183-480 - Diversified Technology Consultants (DTC) - Site 022 (Vogler) -
Application #1036 - 21 Tremont Street - Milford, CT

Date Collected: 07/03/2014
Collected By: Dan Silverman
Date Received: 07/07/2014
Date Analyzed: 07/07/2014
Analyzed By: Everton Byron Barrett
Signature: 
Analyte: Pb Dust
Analytical Method: EPA 3050B/7000B
NYS Lab Number: 10851

Client: Chem Scope, Inc.
15 Moulthrop Street
North Haven, CT 06473

Sample ID# / Lab ID#	Sample Location	Sample Notes	Concentration
183-480-1D 2297637	1-1 Living Room - Floor	Dust Wipe - 12" x 12" Area	178.1 µg/ft ²
183-480-2D 2297638	1-2 Dining Room - Floor	Dust Wipe - 12" x 12" Area	67.0 µg/ft ²
183-480-3D 2297639	1-6 Bedroom - Floor	Dust Wipe - 12" x 12" Area	1722.2 µg/ft ²
183-480-4D 2297640	1-3 Kitchen - Floor	Dust Wipe - 12" x 12" Area	166.4 µg/ft ²
183-480-5D 2297641	1-3 Kitchen - Window Sill	Dust Wipe - 2.5" x 31" Area	53.8 µg/ft ²
183-480-6D 2297642	2-1 Bedroom - Window Sill	Dust Wipe - 5.25" x 35" Area	18.1 µg/ft ²
183-480-7D 2297643	2-1 Bedroom - Floor	Dust Wipe - 12" x 12" Area	BDL < 14.3 µg/ft ²
183-480-8D 2297644	Not Applicable	Field Blank	BDL < 14.3 µg
183-480-9D 2297645	Not Applicable	Field Blank	BDL < 14.3 µg

BDL = Below Detectable Limits
Liability Limited to Cost of Analysis

Reporting Limit = 0.3 ppm

Results Applicable to Those Items Tested Results are Not Blank Corrected All QC within Control Limits Unless Otherwise Indicated

AIHA Accreditation No. 100263 Rhode Island DOH No. AAL-072T3 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AAS-2095




Eastern Analytical Services, Inc.

Page 1 of 1

Bulk Sample Report

RE: CPN 183-480 - Diversified Technology Consultants (DTC) - Site 022 (Vogler) -
Application #1036 - 21 Tremont Street - Milford, CT

Date Collected: 07/03/2014
Collected By: Dan Silverman
Date Received: 07/07/2014
Date Analyzed: 07/08/2014
Analyzed By: Everton Byron Barrett
Signature: 
Analyte: Pb Bulk
Analytical Method: EPA 3050B/7000B
NYS Lab Number: 10851

Client: Chem Scope, Inc.
15 Moulthrop Street
North Haven, CT 06473

Sample ID# / Lab ID#	Sample Location	Sample Notes	Concentration
183-480-1S 2297646	Side A - Garden Next to Porch by Side D - 2" Deep	Soil	67.5 mg/kg 0.01 %

BDL = Below Detectable Limits

Reporting Limit = 0.3 ppm

Liability Limited to Cost of Analysis

Results Applicable to Those Items Tested Results are Not Blank Corrected All QC within Control Limits Unless Otherwise Indicated Soil Samples Reported on Dry Weight Basis - Paint Samples Reported as Received
AIHA Accreditation No. 100263 Rhode Island DOH No. AAL-072T3 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AAS-2095

Chem Scope, Inc.
15 Moulthrop Street, North Haven CT 06473
203-865-5605

Form FL-4A Rev 11/12/13
(Issued By SC)

PO # 1277

CHAIN OF CUSTODY

Emailed _____
Faxed _____
Called _____
Logged ☒

Site 022 (Vogler) - Application #1036

Sample Source: 21 Tremont Street, Milford, CT

CS Job CS# 183-480

Sampled by: Don An Date Sampled: 7/3/14 Customer Name: Diversified Technology Consultants (DTC) -

CS Sample#	Client Sample#	Sample Description	Comments
183-480-1D	1-1 Living Room	Floor 12"x12" on plywood	1.0 sg ft
-2D	1-2 Dining Room	Floor 12"x12" on hardwood	1.0 sg ft
-3D	1-6 Bedroom	Floor 12"x12" on painted hardwood	1.0 sg ft
-4D	1-3 Kitchen	Floor 12"x12" on painted hardwood	1.0 sg ft
-5D	1-3 Kitchen	Sill 2.5"x31" on white painted sill	0.54 sg ft
-6D	2-1 Bedroom	Sill 5.25"x35" on white painted sill	1.3 sg ft
-7D	2-1 Bedroom	Floor 12"x12" on carpet	1.0 sg ft
-8D	-	Blank	-
-9D	-	Blank	-
183-480-1S	Side A	Garden next to porch by side D	2" deep

Sample Turnaround: 5 day

Analysis Requested (if variable, use comment column) (As/At²) (ppm)
Lead in Dust / Lead in Soil

Check if you want sample returned _____ (sampled will be disposed of after 30 days).

Relinquished by Don An Date 7/3/14 Time 500 pm Received by Fed Ex
Relinquished by _____ Date _____ Time _____ Received by _____

Other Special Instructions: Please email to sullivan.chemscope.com

Result Transmittal Instructions (for Chem Scope to transmit): Tell DS for my pt

FOR CHEM SCOPE, INC. TO FILL OUT IF SAMPLES ARE GOING TO OUTSIDE LAB:

Name of Laboratory: EAS Method of Transportation to Laboratory: Fed Ex

Result Transmittal Instructions (for outside Lab to Chem Scope, Inc): PLEASE FAX RESULTS

The person submitting samples is responsible for obtaining true and representative samples, for complying with applicable regulations and for the use of the data obtained from the analysis. For example, many states have licensing and laboratory approval requirements. Please contact the individual states if you have any questions regarding specific sampling or approval requirements. For Connecticut sites, we have licensed inspectors available to collect client samples and to perform building inspections.

Dear Laboratory Customer or Potential Customer,

New laboratory accreditation standards require us to provide our clients information about our services to make sure that your requirements for testing are adequately defined, documented and understood. The following is for your information. Please call us if you have any questions or comments.

Type of Samples:

- / / PCM cassettes are routinely run by NIOSH Method 7400.
- / / Bulk materials are run by EPA Method: #600/R-93/116.

Air Samples: NIOSH 7400 Method counts all fibers. This method may be used for personal air samples and for finals. Two field blanks must be submitted for each set of samples. In the unlikely event that there is to be any deviation from the standard test, you will be consulted by phone before the work begins. Those clients who have not had NIOSH 582 or AHERA asbestos training courses (either supervisor or project monitor) should consult with the lab director for more information. The test parameters are further explained in the analytical report.

Bulk materials: sampled are analyzed by the latest EPA Method: (#600/R-93/116) which uses polarized light microscopy (PLM). When asbestos is detected and the amount is estimated to be <10%, we automatically point count the samples. When there are interfering substances present, we may use ashing, acid washing or other procedures described in the method to handle the interference. Those clients who have not had AHERA asbestos training courses (either inspector, supervisor or project designer) should consult with the lab director for more information. The test parameters are further explained in the analytical report.

All Samples must be clearly labeled with source name and identification number or sufficient information from the client to make this sample uniquely identified. (We will then add our notebook #, page # (batch) and unique number within the batch.) Samples must be in a clean, air tight package such as a zip loc bag. Appropriate completed paperwork must accompany the sample. Bulk and air samples may not be submitted in the same package.

As soon as available bench top results will be faxed to you and reports will then be mailed. We will retain air samples for at least three months and bulk samples for 6 months unless you advise us otherwise.

You are welcome to visit the laboratory at any time to discuss the work, monitor the work or verify our testing services. We appreciate your business and encourage any feedback regarding improving our services or our quality system. Please take a minute to complete the following survey and mail/fax it to ChemScope, Inc.

Customer Service Survey

To help us improve our services give your opinions to the following:

- 1- The printed laboratory report was complete and easy to understand. ☐ YES ☐ NO
If no, please explain _____.
- 2- The turn around time for results met your expectations/needs. ☐ YES ☐ NO
If no, please explain _____.
- 3- How likely are you to recommend ChemScope Inc. to someone?
☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor
- 4- How likely are you to return to ChemScope in the future if the need arises?
☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor
5. On a scale of 1 to 5 where 1 represents "Satisfied" and 5 represents "Dissatisfied", how would you rate your level of overall satisfaction.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- 6- Please add any additional comments or suggestions that would be helpful when you use our services:

Name _____ Company _____
Address _____ Telephone/e-mail _____

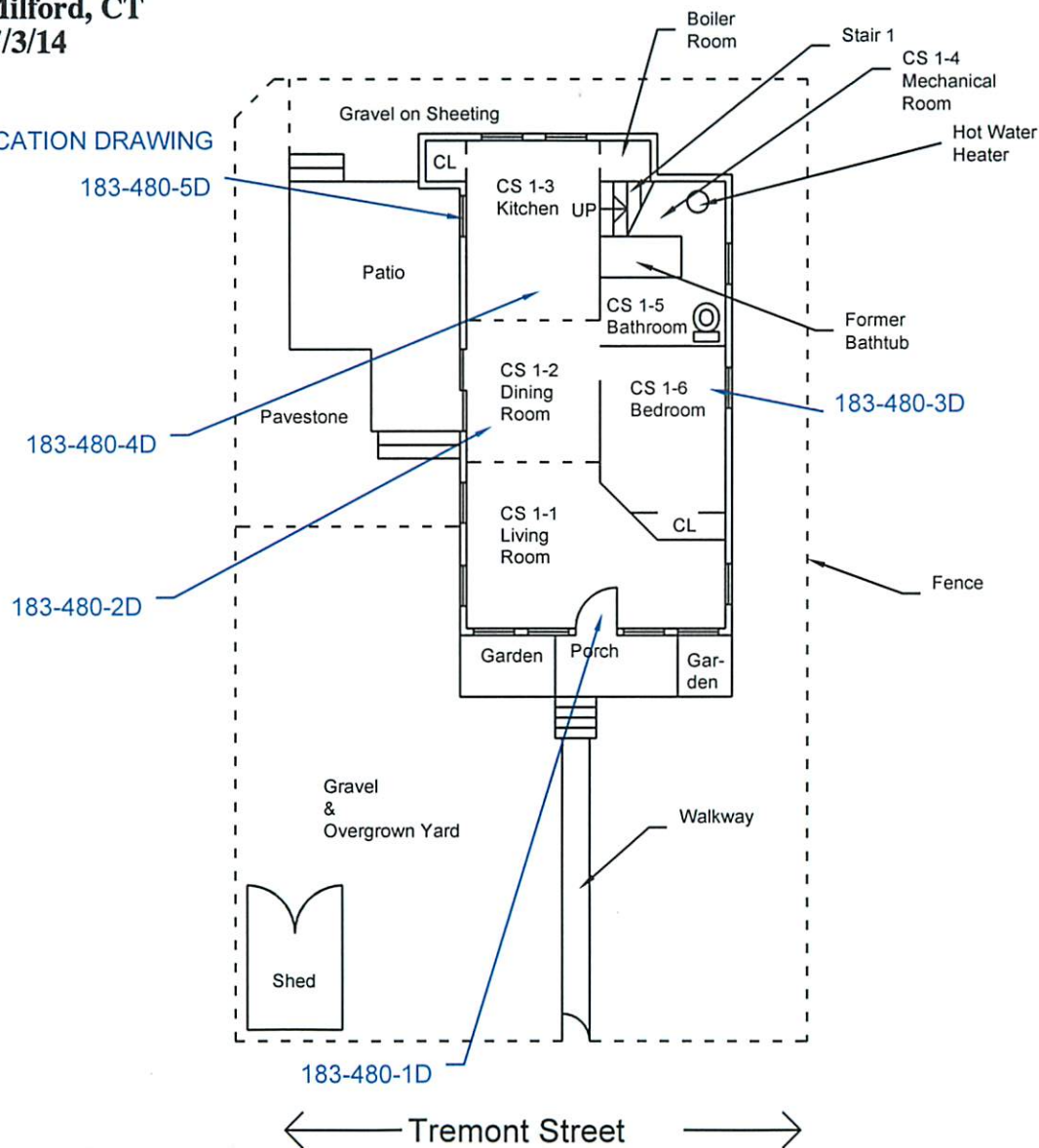
Can we contact you regarding this survey? ☐ YES ☐ NO

Appendix C Sample Location Drawings

ChemScope Inc.

Residence - Main Level & Exterior
21 Tremont Street, Milford, CT
CS# 183-480, 7/3/14

LEAD IN DUST SAMPLE LOCATION DRAWING



LEGEND OF SYMBOLS

1D	LEAD DUST SAMPLE LOCATIONS

NOTATIONS

DRAWN BY
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

ASBESTOS, LEAD &
MOLD INSPECTION

21 TREMONT ST
MILFORD, CT

MAIN LEVEL
& EXTERIOR

CHEMSCOPE NUMBER
CS# 183-480

DRAWING NUMBER

SCALE
NOT TO SCALE

1 D

DATE
7/3/2014

183-480-7D

183-480-6D

CL

Stair 1

DN

CS 2-1
Bedroom

← Tremont Street →



1D	LEAD DUST SAMPLE LOCATION:

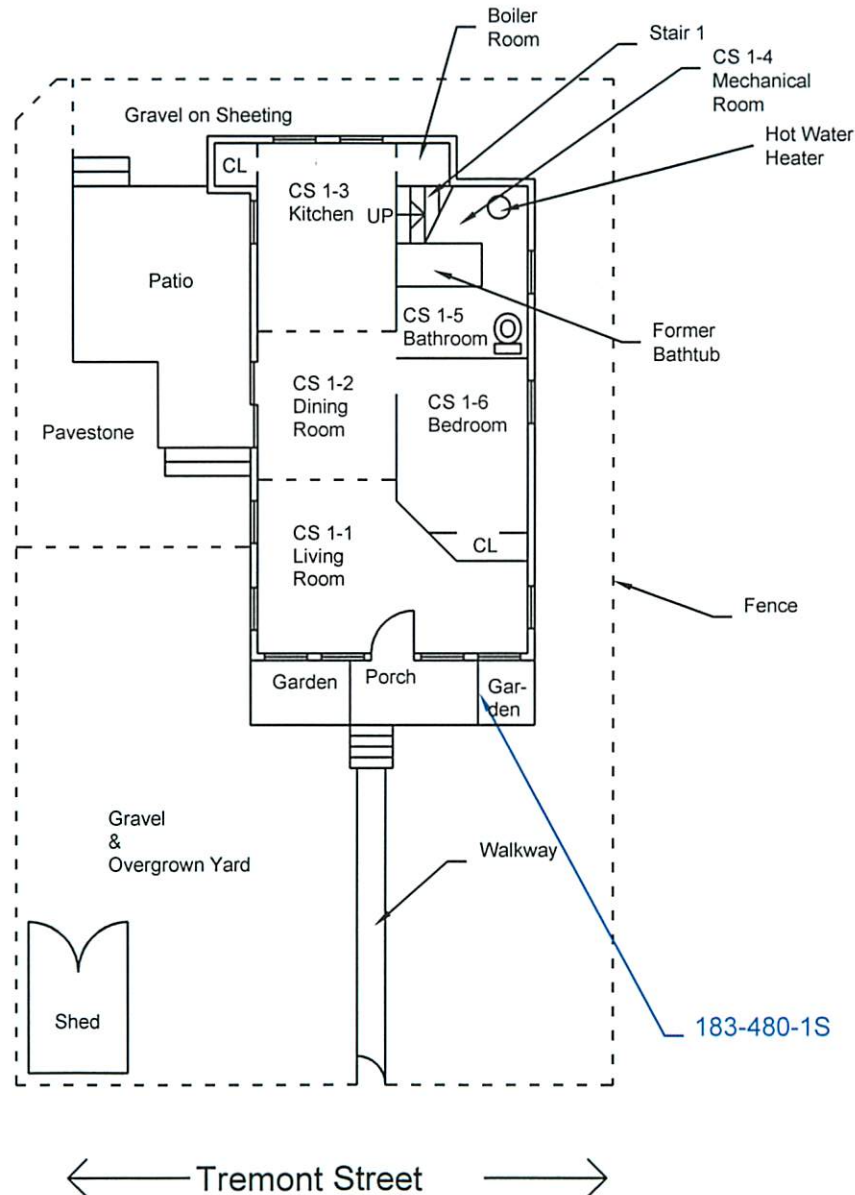
1044

2D

ChemScope Inc.

Residence - Main Level & Exterior
21 Tremont Street, Milford, CT
CS# 183-480, 7/3/14

LEAD IN SOIL SAMPLE LOCATION DRAWING



LEGEND OF SYMBOLS

1S	LEAD SOIL SAMPLE LOCATIONS

NOTATIONS

DRAWN BY
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:

ASBESTOS, LEAD &
MOLD INSPECTION

21 TREMONT ST
MILFORD, CT

MAIN LEVEL
& EXTERIOR

CHEMSCOPE NUMBER
CS# 183-480

DRAWING NUMBER

SCALE
NOT TO SCALE

1LS

DATE
7/3/2014

Appendix D Hazardous Waste Evaluation Worksheet

Site Name: Site 022 (Vogler) - Application #1036
 Site Address: 21 Tremont Street, Milford, CT

CS# 183-480
 Date: 7/3/14

Building Component	Average XRF Readings		Material Mass g/cm ²	mg Lead/kg of Mass		Component Est % of Mass	Weighting Factor	Weighting Factor x mg/kg of lead	
	w/ hot spot	w/o hot spots		w/hot spots	w/o hot spots			w/ hot spots	w/o hot spots
Ceramic Wall Tile	0	0	1.5	0.0	0.0	2	0.02	0.0	0.0
Sheetrock	0	0	0.45	0.0	0.0	15	0.15	0.0	0.0
Vinyl	0	0	0.3	0.0	0.0	8	0.08	0.0	0.0
Unpainted/Stained Wood	0	0	0.6	0.0	0.0	55	0.55	0.0	0.0
Painted Wood	0	0.3	0.6	0.0	500.0	10	0.10	0.0	50.0
Fiberboard	0	0	0.4	0.0	0.0	5	0.05	0.0	0.0
Metal	recycle	recycle				5	0.05	0.0	0.0
Total						100	Total*	0.0	50.0

*Compared to criterion of > 100 mg/kg lead - (DEP: "Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries" (11/4/94)

A value by this method of >100 mg/kg lead indicates the material is potentially a hazardous waste.

Appendix E Copy of Risk Assessor's License/Certification

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

DANIEL P. SULLIVAN

CERTIFICATION NO.
002131

CURRENT THROUGH
04/30/15

VALIDATION NO.
03-790779


SIGNATURE


COMMISSIONER

CERT# L-600 - 763

**CHEMSCOPE TRAINING DIVISION
LEAD INSPECTOR/RISK ASSESSOR REFRESHER
8HOUR TRAINING CERTIFICATE**

**Daniel P. Sullivan
15 Moulthrop Street , North Haven CT**

Has attended an 8 hour course on the subject discipline on
11/08/2013 and has passed a written and hands on skills examination.


The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course syllabus includes all required topics of State of Connecticut DPH and EPA.

Examination Date: 11/08/2013

Expiration Date: 11/08/2014

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.



Ronald D. Arena or Brian Santos
Training Director Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
(203) 865-5605

Appendix F Copy of Firm's Lead Activity License/Certification

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

LEAD CONSULTANT CONTRACTOR

CHI MSCOPE INC

000164

07/31/15

03-847539


SIGNATURE


SIGNATURE



Connecticut Department of
Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
www.ct.gov/deep

CHEM SCOPE, INC.
15 MOULTHROP STREET
NORTH HAVEN, CT 06473

12/30/2013

Dear Registrant:

Enclosed is a Certificate of Use for the Radioactive Materials and Industrial X-Ray Device Registration submitted by your facility to the department.

This certificate will serve two purposes. First, this is a way for us to acknowledge to you that your registration has been processed. Second, it is a way for our inspection staff to know that you have the appropriate registration for your radioactive materials and equipment.

The Radioactive Materials and Industrial X-Ray Device Registration must be renewed each year. Notification will be sent to you in the month of November prior to the expiration of this registration to renew your registration.

When corresponding with our office regarding your registration please use the "Application No." indicated on the certificate. This number is unique to your facility and its location.

If you have any questions regarding the Radioactive Materials and Industrial X-Ray Device Registration please feel free to call the Radiation Division at 860-424-3029.

Enclosure



Connecticut Department of
Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
www.ct.gov/deep

Certificate of Use

Issued To

CHEM SCOPE, INC.

For

Radioactive Material and Industrial X-Ray Device Registration

**Daniel C. Esty
Commissioner**

Site Located at:
15 Moulthrop St,
North Haven, CT 06473
Reference: 0808-2014

Application No: 201306468
Issue Date: 12/24/2013
Expiration Date: 12/31/2014

**Appendix G Copy of XRF Training Certificate and XRF Performance
Characteristics Sheet**

Certificate of Achievement

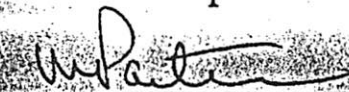
This is to certify that

Daniel P. Sullivan
of Chem Scope

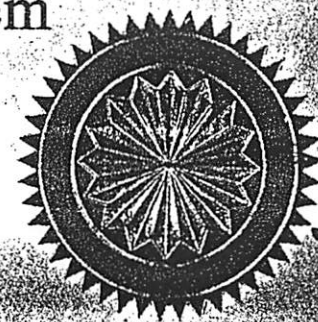
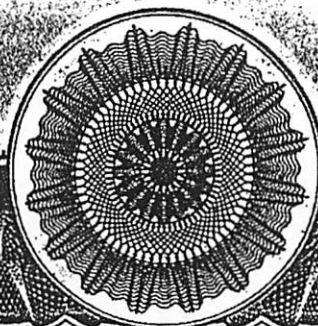
on the 2nd day of December 1994 successfully completed the factory training for

RMD's LPA-1 Lead Paint Inspection System

including, but not limited to, the topics of Radiation Safety
and the Proper Use of the Instrument.



Jacob Paster, Vice-President of RMD
44 Hunt St., Watertown, Massachusetts



Performance Characteristic Sheet

EFFECTIVE DATE: December 1, 2006

EDITION NO.: 5

MANUFACTURER AND MODEL:

Make: *Radiation Monitoring Devices*Model: *LPA-1*Source: *⁵⁷Co*

Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above ***for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.***

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Quick mode or 30-second equivalent standard (Time Corrected) mode readings.

XRF CALIBRATION CHECK LIMITS:

0.7 to 1.3 mg/cm² (inclusive)

SUBSTRATE CORRECTION:

For XRF results below 4.0 mg/cm², substrate correction is recommended for:

Metal using 30-second equivalent standard (Time Corrected) mode readings.

None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second equivalent standard (Time Corrected) mode readings

Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

THRESHOLDS:

30-SECOND EQUIVALENT STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
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/cm ²)
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION VALUE COMPUTATION :

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm² for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm² at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm². Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm² NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1^{\text{st}} + 2^{\text{nd}} + 3^{\text{rd}} + 4^{\text{th}} + 5^{\text{th}} + 6^{\text{th}} \text{ Reading}) / 6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either the Quick Mode or 30-second equivalent standard (Time Corrected) Mode readings.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

BIAS AND PRECISION:

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm² lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm² lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm² and none of the quick mode readings were less than 1.0 mg/cm². The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm ²)	PRECISION* (mg/cm ²)
0.0 mg/cm ²	Brick	0.0	0.1
	Concrete	0.0	0.1
	Drywall	0.1	0.1
	Metal	0.3	0.1
	Plaster	0.1	0.1
	Wood	0.0	0.1
0.5 mg/cm ²	Brick	0.0	0.2
	Concrete	0.0	0.2
	Drywall	0.0	0.2
	Metal	0.2	0.2
	Plaster	0.0	0.2
	Wood	0.0	0.2
1.0 mg/cm ²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.0	0.3
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.0	0.3
2.0 mg/cm ²	Brick	-0.1	0.4
	Concrete	-0.1	0.4
	Drywall	-0.1	0.4
	Metal	0.1	0.4
	Plaster	-0.1	0.4
	Wood	-0.1	0.4

*Precision at 1 standard deviation.

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristic Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION:

An EPA document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, www.hud.gov/offices/lead.

This XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Appendix H “LEAD SPEAK” – A Brief Glossary

Abatement: A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead-contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. (For full EPA definition, see 40 CFR 745.223).

Bare soil: Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Chewable surface: An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an “accessible surface” as defined in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.

Deteriorated paint: Any paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligating, cracking, or otherwise becoming separated from the substrate.

Dripline/foundation area: The area within 3 feet out from the building wall and surrounding the perimeter of a building.

Dust-lead hazard: Surface dust in residences that contains an area or mass concentration of lead equal to or in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for dust-lead hazards, which are based on wipe samples, are published at 40 CFR 745.65(b); as of the publication of this edition of these *Guidelines*, these are 40 µg/ft² on floors and 250 µg/ft² on interior windowsills. Also called lead-contaminated dust.

Friction surface: Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Garden area: An area where plants are cultivated for human consumption or for decorative purposes.

Impact surface: An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA’s Renovation, Repair and Painting Rule.

Lead-based paint: Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 mg/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis. (Local definitions may vary.)

Lead-based paint hazard: A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA at 40 CFR 745.65, under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, **paint-lead hazards, dust-lead hazards, and soil-lead hazards.**

Paint-lead hazard: Lead-based paint on a friction surface that is subject to abrasion and where a dust-lead hazard is present on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor); damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component; a chewable lead-based painted surface on which there is evidence of teeth marks; or any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

Play area: An area of frequent soil contact by children of under age 6 as indicated by, but not limited to, such factors including the following: the presence of outdoor play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

Soil-lead hazard: Bare soil on residential property that contains lead in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for soil-lead hazards, published at 40 CFR 745.65(c), as of the publication of this edition of these *Guidelines*, is 400 µg/g in play areas and 1,200 µg/g in the rest of the yard. Also called lead-contaminated soil.

Appendix I Additional Lead and Lead Safety Resource

Key Units of Measurement

Gram (g or gm): A unit of mass in the metric system. A nickel weighs about 1 gram, as does a 1 cube of water 1 centimeter on each side. A gram is equal to about 35/1000 (thirty-five thousandths of an ounce). Another way to think of this is that about 28.4 grams equal 1 ounce.

µg (microgram): A microgram is 1/1000th of a milligram. To put this into perspective, a penny weighs 2 grams. To get a microgram, you would need to divide the penny into 2 million pieces. A microgram is one of those two million pieces.

µg/dL (microgram per deciliter): used to measure the level of lead in children's and worker's blood to establish whether intervention is needed. A deciliter is a little less than a half a cup.

µg/ft² (micrograms per square feet): the unit used to express levels of lead in dust samples. All reports should report levels of lead in dust in µg/ft².

mg/cm² (milligrams per square centimeter): used to report levels of lead in paint thru XRF testing.

ppm (parts per million): Typically used to express the concentrations of lead in soil. Can also be used to express the amount of lead in a surface coating on a mass concentration basis. This measurement can also be shown as: µg/g, mg/kg or mg/l.

ppb (parts per billion): Typically used to express the amount of lead found in drinking water. This measurement is also sometimes expressed as: µg/L (micrograms per liter). EPA/HUD Lead-Based Paint and Lead-Based Paint Hazard Standards

Lead-Based Paint (may be determined in either of two ways)

- Surface concentration (mass of lead per area) 1.0 µg/cm²
- Bulk concentration (mass of lead per volume) 0.5%, 5000 µg/g, or 5000 ppm

Dust-thresholds for Lead-Contamination

- Floors 40 µg/ft²
- Interior Window Sills 250 µg/ft²
- Window Troughs (clearance examination only) 400 µg/ft²

Soil-thresholds for Lead Contamination

- Play areas (used by children under age 6) 400 µg/g, or 400 ppm
- Other areas 1200 µg/g, or 1200 ppm

Resources For Additional Information On Lead-Based Paint And Lead-Based Paint Hazards:

National Lead information Center & Clearinghouse: 1-800-424 LEAD
www.epa.gov/lead/pubs/nlic.htm

Centers for Disease Control and Prevention Lead Program: www.cdc.gov/lead Toll-free CDC Contact Center: 800-CDC-INFO; TTY 888-232-6348

Consumer Product Safety Commission www.cpsc.gov Toll-free consumer hotline: 1-800-638-2772; TTY 301-595-7054

Environmental Protection Agency Lead Program: www.epa.gov/lead 202-566-0500

HUD Office of Healthy Homes and Lead Hazard Control: www.hud.gov/offices/lead 202-402-7698

Connecticut Department of Public Health, Lead Poisoning Prevention Program
<http://www.ct.gov/dph/>

Hearing- or speech-challenged individuals may access the federal agency numbers above through TTY by calling the toll-free Federal Relay Service at 800-877-8339; see also <http://www.federalrelay.us/tty>.

ChemScope

INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610 • www.chem-scope.com

Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

7/30/2014

**ASBESTOS PRE-RENOVATION INSPECTION
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 1 OF 5**

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Limitations of the Inspection	5
Recommendations	5

Attachments:

- Site Drawing(s) – 3 page(s)
- PLM Certificate of Analysis report with chain of custody - 9 page(s)
- Sample location drawing(s) - 2 page(s)

Report Distribution:

Scott Feulner, DTC Scott.Feulner@teamdte.com
Curtis Graham, DTC graham.curtis@teamdte.com
Michael Casey, DTC michael.casey@teamdte.com

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**ASBESTOS PRE-RENOVATION INSPECTION
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 2 OF 5**

INTRODUCTION

EXECUTIVE SUMMARY: Asbestos Containing Materials (ACM) as defined by DPH and EPA were not detected within the scope of this inspection.

BUILDING DESCRIPTION: The subject building is a single-family, two-story, conventional-style house totaling approximately 1100 sq ft, which was built in 1920 of wood-frame construction. Heat was supplied from a boiler in the mechanical room. The boiler, which is no longer in service, appears to have been less than 15 yrs old and had no suspect accessible components. There is a crawlspace under the first floor space. At the time of our inspection the heat, electricity and water were not in service and the house was unoccupied.

BACKGROUND: We understand the subject house suffered damage as a result of hurricane Sandy on October 29-30, 2012. The house is scheduled to be renovated and raised. We understand the water from the storm reached just above the floor level. We understand the scope of the renovations to be as follows: raising the dwelling above the base flood elevation; replacing the first floor windows and doors; restoring the interior walls, floors, and trim. Replacing the kitchen cabinets and appliances. Replacing the first floor bathroom, MEP systems and wood stairs. On the second floor, construct a new bathroom within existing bedroom space.

SCOPE OF INSPECTION: Asbestos Pre-Renovation Inspection of the first floor and future bathroom area on the second floor at the subject house, as directed by our client.

Our work included the following:

- Collection and analysis of building materials within the scope of renovation for asbestos, as required by the regulations.
- A list with quantity, type and location of asbestos containing materials (ACM) in the scope.
- Report of the findings including ACM location drawings.

This investigation and information provided in this report depends partly on background information provided by the client. This report is intended for the use of the client. The scope of services performed may not be appropriate for other users and any use of this report by third parties is at their sole risk. This report is intended to be used in its entirety. No excerpts may be taken to be representative of this report.

TEST PARAMETERS: This is an Asbestos Pre-Renovation Inspection intended to identify the presence, location, and quantity of any asbestos containing building materials which are part of the Renovation for compliance with OSHA 1926.1101 (k)(2)(i) and CT DPH 19a-332a-1 through 16.

For sampling, EPA Wet Methods are used to prevent fiber release. Building materials sampled are analyzed at our laboratory by EPA method 600/R-93/116. This is currently the approved EPA Test method, which uses Polarized Light Microscopy with Dispersion Staining. The laboratory is accredited by NIST/NVLAP and AIHA, and is a Connecticut Approved Environmental Laboratory for Asbestos Analysis.

**ASBESTOS PRE-RENOVATION INSPECTION
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 3 OF 5**

INSPECTION REPORT SYNOPSIS

LOCATION NAME AND ADDRESS: Site 022
21 Tremont Street, Milford, CT
Application #1036

INSPECTION DATE(S): 7/3/2014

QUALIFICATIONS:

The Inspection was conducted by Daniel P. Sullivan:

- EPA & State of Connecticut Accredited Asbestos Inspector, Project Monitor & Project Designer
- State of Connecticut Licensed Asbestos Inspector/Management Planner (#000019)
- State of Connecticut Licensed Asbestos Project Monitor (#000036)
- State of Connecticut Licensed Asbestos Project Designer (#000096)

Dan was assisted by Leigh Honorof, State of CT Licensed Asbestos Inspector (#000874).

For information about Chem Scope, Inc., log onto <http://www.chem-scope.com>.

SITE OBSERVATIONS: (See attached drawing) We met our client at the site. He showed us the work areas and provided some background information. The following observations were made:

- The interior of the first floor has been essentially gutted down to bare wood studs and wood subfloor or hardwood floors.
- The second floor has carpeted flooring, sheetrock walls and ceilings. All of these materials are intact.
- The boiler has been removed from the boiler room and is in the 1-3 Kitchen area. No suspect materials were seen on the boiler, which looked to be less than 15 years old.
- The crawlspace has a soil floor, which is damp.
- Most of the window sashes appear to be newer replacement windows, except for the wooden sash windows on side A.

FINDINGS:

NO ASBESTOS WAS DETECTED WITHIN THE SCOPE OF OUR INSPECTION.

Continued

**ASBESTOS PRE-RENOVATION INSPECTION
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 4 OF 5**

INSPECTION REPORT SYNOPSIS

The following is a summary table of the materials that tested as non-Asbestos Containing Material (ACM) (<1%) within the Scope of Work:

Material	Location	Sample #'s	Findings
Grey crumbly sheetrock with brown fibrous paper backing and brown face coat	Throughout	183-480-1,2,3	No Asbestos Detected
White crumbly sheetrock taping compound	Throughout	183-480-4,5,6	No Asbestos Detected
Brown fibrous homosote wall board	1-3 Kitchen, 1-2 Dining Rm	183-480-7,8	No Asbestos Detected
White crumbly wallboard taping compound	1-3 Kitchen, 1-2 Dining Rm	183-480-9,10	No Asbestos Detected
White hard mortar (with white hard grout, from behind white hard ceramic shower tile, on blue fibrous netting, on sheetrock)	1-5 Bathroom	183-480-11,12	No Asbestos Detected
White hard grout (between white hard ceramic shower tiles)	1-5 Bathroom	183-480-13,14	No Asbestos Detected
Grey hard mortar (formerly beneath bathtub, on wood)	1-5 Bathroom	183-480-15,16	No Asbestos Detected
Grey hard mortar (with blue hard grout, from beneath grey hard 12" ceramic floor tile, on white fibrous netting on wood)	1-5 Bathroom	183-480-17,18	No Asbestos Detected
Blue hard grout (between grey hard 12" ceramic floor tiles)	1-5 Bathroom	183-480-19,20	No Asbestos Detected
Grey fibrous paper on black sticky adhesive (on wood floor)	1-3 Kitchen	183-480-21,22	No Asbestos Detected
Orange fibrous paper on black fibrous paper backing (on wood floor)	1-3 Kitchen	183-480-23,24	No Asbestos Detected
White hard glazing (on wood, from window 2)	Exterior Side A	183-480-25,26	No Asbestos Detected
Off-white pliable glazing (on metal, from window 3)	Exterior Side A	183-480-27,28	No Asbestos Detected
White pliable patch (on vinyl)	Exterior Side A	183-480-29,30	No Asbestos Detected
Brown fibrous paper on black sticky adhesive (on pink fibrous fiberglass wall insulation)	Throughout	183-480-33,34	No Asbestos Detected
Silver fibrous paper on brown fibrous paper on black sticky adhesive (on yellow fibrous fiberglass wall insulation)	Throughout	183-480-33,34	No Asbestos Detected
Black fibrous tar paper (at C wall, behind wood stud)	1-3 Kitchen Boiler Room	183-480-35,36	No Asbestos Detected
Grey hard glue (on wood floor near Boiler Room)	1-3 Kitchen	183-480-37,38	No Asbestos Detected
Grey fibrous particle board (residue of boards nailed to ceiling)	Crawlspace	183-480-39,40	No Asbestos Detected

**ASBESTOS PRE-RENOVATION INSPECTION
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 5 OF 5**

LIMITATIONS OF INSPECTION

It is important to note that every effort is made to detect asbestos (ACM) in the path of the renovation by our inspectors. It is not practical or prudent to demolish the entire work area during an inspection. The owner should be aware of this in case suspect materials or concealed suspect materials are uncovered during the actual renovation.

If suspect materials that were previously not accessible or not sampled during this inspection are discovered during the renovation, or if the scope of the renovation changes to include disturbance of new materials not inspected, then renovation must stop and the materials must be sampled by a CT DPH licensed asbestos inspector prior to disturbance of these materials.

RECOMMENDATIONS

Although no asbestos containing materials were detected within the scope of this inspection it is important to understand that Asbestos removal is regulated by federal and state agencies. Abatement work must be done by a licensed asbestos abatement contractor using proper procedures and practices, including containment, decontamination facilities, negative air units and trained and CT DPH licensed workers. Final reoccupancy testing is also required, if the building is going to be reoccupied after the asbestos removal and strongly recommended even if the building is not going to be re-occupied such as in the case of building demolition, for removal of greater than three (3) sq. ft or linear ft of ACM. A CT DPH Licensed Project Monitor is always required for final visual inspections after asbestos removal.

OSHA regulations 1926.1101 requires that before asbestos removal or repair work (class I, II or III work) is initiated, building owners/facility owners must notify their own employees and employers who are bidding on such work, of the quantity and location of ACM or PACM (presumed asbestos containing material) present in such areas. Also for inadvertently discovered ACM or PACM there is a 24-hour notification requirement to the owner and all employers at the site.

If you have any questions or need more information please call me. Thank you for calling on us.

Sincerely,



Dan Sullivan
Vice President, Operations



LEGEND OF SYMBOLS

NOTATIONS

DRAWN BY
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

ASBESTOS, LEAD &
MOLD INSPECTION

21 TREMONT ST
MILFORD, CT

MAIN LEVEL
& EXTERIOR

CHEMSCOPE NUMBER
CS# 183-480

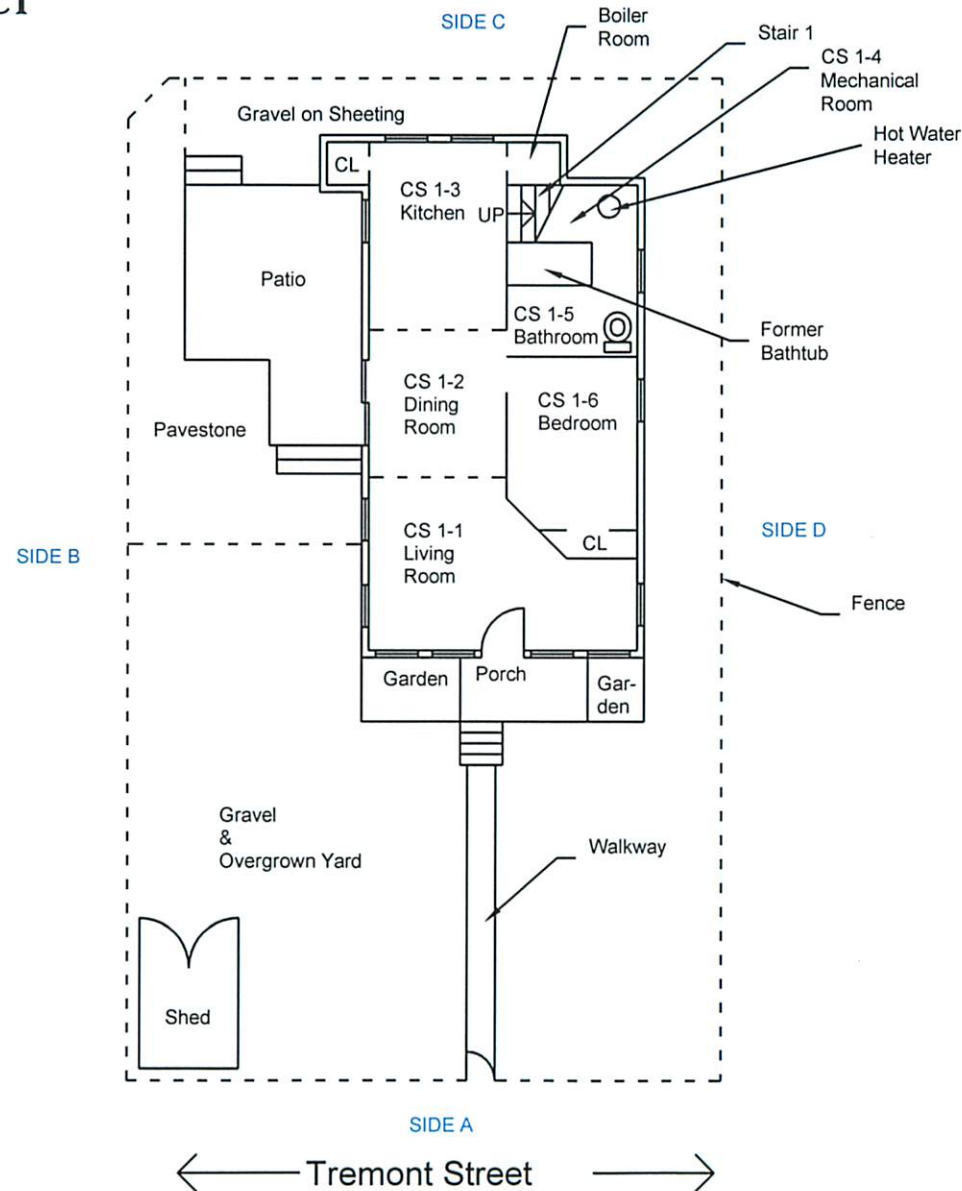
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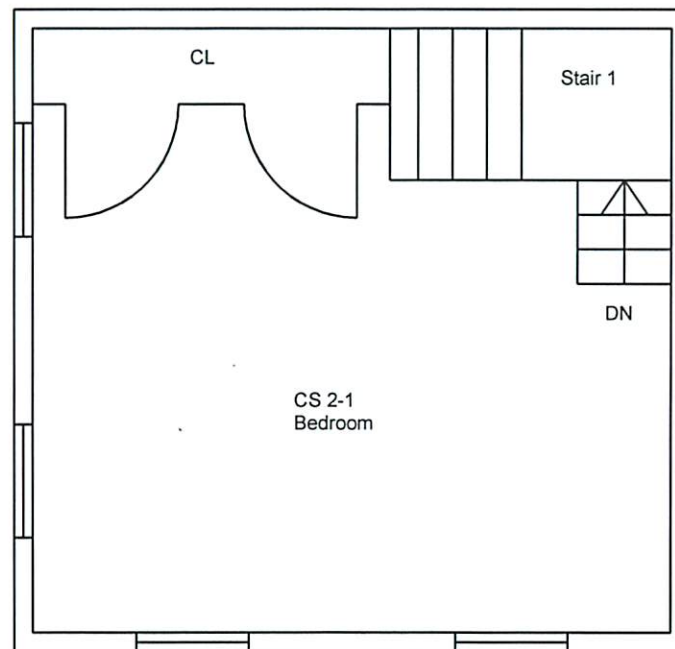
DATE
7/3/2014

ChemScope Inc.
Residence - Main Level & Exterior
21 Tremont Street, Milford, CT
CS# 183-480, 7/3/14



CS# 183-480, 7/3/14

SIDE D



SIDE B

CS 2-1
Bedroom

SIDE C

SIDE A

← Tremont Street →



LEGEND OF SYMBOLS

[illegible]

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

**ASBESTOS, LEAD &
MOLD INSPECTION**

21 TREMONT ST
MILFORD, CT

SECOND FLOOR

CHEMSCOPE NUMBER:
CS# 183-480

SCALE
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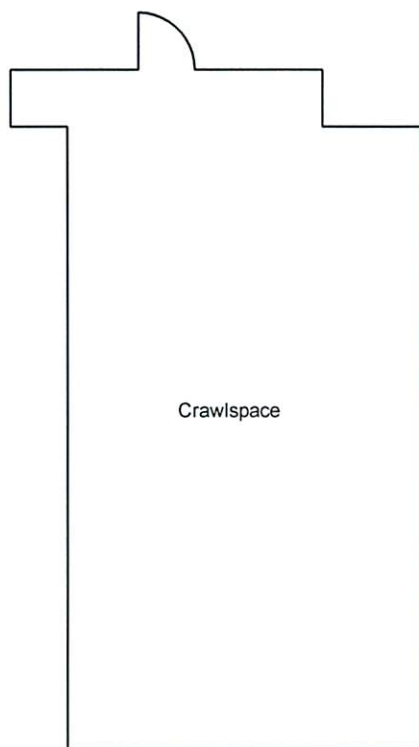
DATE
7/3/2014

DRAWING NUMBER

2 S

ChemScope Inc.
 Residence - Crawlspace
 21 Tremont Street, Milford, CT
 CS# 183-480, 7/3/14

SIDE D



SIDE B

SIDE C

SIDE A

← Tremont Street →



LEGEND OF SYMBOLS

NOTATIONS

DRAWN BY
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

**ASBESTOS, LEAD &
 MOLD INSPECTION**

**21 TREMONT ST
 MILFORD, CT**

CRAWLSPACE

CHEMSCOPE NUMBER
CS# 183-480

DRAWING NUMBER

SCALE
NOT TO SCALE

3 S

DATE
7/3/2014

Certificate Of Analysis

Diversified Technology Consultants (DTC) - Scott Feulner

2321 Whitney Avenue

Suite 301

Hamden CT 06518

7/10/2014

CS# 183-480

Page 1 of 7

Bulk sample(s) from Site 022 (Vogler) - Application #1036, 21 Tremont Street, Milford, CT collected by Leigh Honorof on 7/3/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 7/10/14)

183-480-1 Grey crumbly sheetrock with brown fibrous paper backing (with white crumbly sheetrock taping compound, from wall) / CS 1-1 Living Room

*No Asbestos Detected
75% Non- Fibrous Particles
25% Volatile on Ignition*

183-480-2 Grey crumbly sheetrock with brown fibrous paper backing (with white crumbly sheetrock taping compound, from wall) / CS 1-6 Bedroom

*No Asbestos Detected
78% Non- Fibrous Particles
22% Volatile on Ignition*

183-480-3 Grey crumbly sheetrock with brown fibrous paper backing (with white crumbly sheetrock taping compound, from wall) / CS 1-5 Bathroom

*No Asbestos Detected
87% Non- Fibrous Particles
13% Volatile on Ignition*

183-480-4 White crumbly sheetrock taping compound (from sample #1) / CS 1-1 Living Room

*No Asbestos Detected
96% Non- Fibrous Particles
4% Volatile on Ignition*

183-480-5 White crumbly sheetrock taping compound (from sample #2) / CS 1-6 Bedroom

*No Asbestos Detected
95% Non- Fibrous Particles
5% Volatile on Ignition*

Bulk sample(s) from Site 022 (Vogler) - Application #1036, 21 Tremont Street, Milford, CT collected by Leigh Honorof on 7/3/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification**Findings (Analyzed 7/10/14)**

183-480-6 White crumbly sheetrock taping compound (from sample #2) / CS 1-5 Bathroom

*No Asbestos Detected
89% Non- Fibrous Particles
11% Volatile on Ignition*

183-480-7 Brown fibrous homosote wall board (with white crumbly wall board taping compound) / CS 1-3 Kitchen

*No Asbestos Detected
15% Non- Fibrous Particles
85% Volatile on Ignition*

183-480-8 Brown fibrous homosote wall board (with white crumbly wall board taping compound) / CS 1-2 Dining Room

*No Asbestos Detected
14% Non- Fibrous Particles
86% Volatile on Ignition*

183-480-9 White crumbly wall board taping compound (from sample #7) / CS 1-3 Kitchen

*No Asbestos Detected
89% Non- Fibrous Particles
11% Volatile on Ignition*

183-480-10 White crumbly wall board taping compound (from sample #8) / CS 1-2 Dining Room

*No Asbestos Detected
77% Non- Fibrous Particles
23% Volatile on Ignition*

183-480-11 White hard mortar (with white hard grout, from behind white hard ceramic shower tile, on blue fibrous netting, on sheetrock) / CS 1-5 Bathroom

*No Asbestos Detected
90% Non- Fibrous Particles
10% Volatile on Ignition*

183-480-12 White hard mortar (with white hard grout, from behind white hard ceramic shower tile, on blue fibrous netting, on sheetrock) / CS 1-5 Bathroom

*No Asbestos Detected
88% Non- Fibrous Particles
12% Volatile on Ignition*

Bulk sample(s) from Site 022 (Vogler) - Application #1036, 21 Tremont Street, Milford, CT collected by Leigh Honorof on 7/3/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 7/10/14)

183-480-13 White hard grout (from sample #11, between white hard ceramic shower tiles) / CS 1-5 Bathroom

*No Asbestos Detected
92% Non- Fibrous Particles
8% Volatile on Ignition*

183-480-14 White hard grout (from sample #12, between white hard ceramic shower tiles) / CS 1-5 Bathroom

*No Asbestos Detected
97% Non- Fibrous Particles
3% Volatile on Ignition*

183-480-15 Grey hard concrete (formerly beneath bathtub, on wood) / CS 1-5 Bathroom

*No Asbestos Detected
95% Non- Fibrous Particles
5% Volatile on Ignition*

183-480-16 Grey hard concrete (formerly beneath bathtub, on wood) / CS 1-5 Bathroom

*No Asbestos Detected
93% Non- Fibrous Particles
7% Volatile on Ignition*

183-480-17 Grey hard mortar (with blue hard grout, from beneath grey hard 12" ceramic floor tile, on white fibrous netting on wood) / CS 1-5 Bathroom

*No Asbestos Detected
92% Non- Fibrous Particles
8% Volatile on Ignition*

183-480-18 Grey hard mortar (with blue hard grout, from beneath grey hard 12" ceramic floor tile, on white fibrous netting on wood) / CS 1-5 Bathroom

*No Asbestos Detected
92% Non- Fibrous Particles
8% Volatile on Ignition*

183-480-19 Blue hard grout (from sample # 17, between grey hard 12" ceramic floor tiles) / CS 1-5 Bathroom

*No Asbestos Detected
93% Non- Fibrous Particles
7% Volatile on Ignition*

Bulk sample(s) from Site 022 (Vogler) - Application #1036, 21 Tremont Street, Milford, CT collected by Leigh Honorof on 7/3/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 7/10/14)

183-480-20 Blue hard grout (from sample # 18, between grey hard 12" ceramic floor tiles) / CS 1-5 Bathroom

*No Asbestos Detected
94% Non- Fibrous Particles
6% Volatile on Ignition*

183-480-21 Grey fibrous paper on black sticky adhesive (on wood floor) / CS 1-3 Kitchen

*No Asbestos Detected
25% Non- Fibrous Particles
75% Volatile on Ignition*

183-480-22 Grey fibrous paper on black sticky adhesive (on wood floor) / CS 1-3 Kitchen

*No Asbestos Detected
24% Non- Fibrous Particles
76% Volatile on Ignition*

183-480-23 Orange fibrous paper on black fibrous paper backing (on wood floor) / CS 1-3 Kitchen

*No Asbestos Detected
15% Non- Fibrous Particles
85% Volatile on Ignition*

183-480-24 Orange fibrous paper on black fibrous paper backing (on wood floor) / CS 1-3 Kitchen

*No Asbestos Detected
14% Non- Fibrous Particles
86% Volatile on Ignition*

183-480-25 White hard glazing (on wood, from window 2) / Exterior side A

*No Asbestos Detected
90% Non- Fibrous Particles
10% Volatile on Ignition*

183-480-26 White hard glazing (on wood, from window 1) / Exterior side A

*No Asbestos Detected
91% Non- Fibrous Particles
9% Volatile on Ignition*

Bulk sample(s) from Site 022 (Vogler) - Application #1036, 21 Tremont Street, Milford, CT collected by Leigh Honorof on 7/3/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 7/10/14)

183-480-27 Off-white pliable glazing (on metal, from window 3) / Exterior side A

*No Asbestos Detected
44% Non- Fibrous Particles
56% Volatile on Ignition*

183-480-28 Off-white pliable glazing (on metal, from window 3) / Exterior side A

*No Asbestos Detected
42% Non- Fibrous Particles
58% Volatile on Ignition*

183-480-29 White pliable patch (on vinyl) / Exterior side A

*No Asbestos Detected
24% Non- Fibrous Particles
76% Volatile on Ignition*

183-480-30 White pliable patch (on vinyl) / Exterior side A

*No Asbestos Detected
29% Non- Fibrous Particles
71% Volatile on Ignition*

183-480-31 Brown fibrous paper on black sticky adhesive (on pink fibrous fiberglass wall insulation) / CS 1-1 Living Room

*No Asbestos Detected
11% Non- Fibrous Particles
5% Fiberglass
84% Volatile on Ignition*

183-480-32 Brown fibrous paper on black sticky adhesive (on pink fibrous fiberglass wall insulation) / CS 1-5 Bathroom

*No Asbestos Detected
3% Non- Fibrous Particles
2% Fiberglass
95% Volatile on Ignition*

183-480-33 Silver fibrous paper on brown fibrous paper on black sticky adhesive (on yellow fibrous fiberglass wall insulation) / CS 1-1 Living Room

*No Asbestos Detected
15% Non- Fibrous Particles
4% Fiberglass
81% Volatile on Ignition*

Bulk sample(s) from Site 022 (Vogler) - Application #1036, 21 Tremont Street, Milford, CT collected by Leigh Honorof on 7/3/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification**Findings (Analyzed 7/10/14)**

183-480-34 Silver fibrous paper on brown fibrous paper on black sticky adhesive (on yellow fibrous fiberglass wall insulation) / CS 1-3 Kitchen Boiler Room

*No Asbestos Detected
13% Non- Fibrous Particles
3% Fiberglass
84% Volatile on Ignition*

183-480-35 Black fibrous tar paper (at A wall, behind wood stud) / CS 1-3 Kitchen Boiler Room

*No Asbestos Detected
7% Non- Fibrous Particles
<1% Mineral Wool
93% Volatile on Ignition*

183-480-36 Black fibrous tar paper (at A wall, behind wood stud) / CS 1-3 Kitchen Boiler Room

*No Asbestos Detected
3% Non- Fibrous Particles
<1% Mineral Wool
97% Volatile on Ignition*

183-480-37 Grey hard glue (on wood floor near Boiler Room) / CS 1-3 Kitchen

*No Asbestos Detected
62% Non- Fibrous Particles
38% Volatile on Ignition*

183-480-38 Grey hard glue (on wood floor near Boiler Room) / CS 1-3 Kitchen

*No Asbestos Detected
61% Non- Fibrous Particles
39% Volatile on Ignition*

183-480-39 Grey fibrous particle board (from ceiling) / Crawlspace

*No Asbestos Detected
11% Non- Fibrous Particles
89% Volatile on Ignition*

183-480-40 Grey fibrous particle board (from ceiling) / Crawlspace

*No Asbestos Detected
8% Non- Fibrous Particles
92% Volatile on Ignition*

PARAMETERS
ASBESTOS PLM ANALYSIS
 (Revised 3/22/13)

1. Materials which contain >1% asbestos (greater than 1%) by PLM (polarizing light microscopy) analysis are considered to be asbestos containing materials under EPA and the State of Connecticut Regulations. OSHA still regulates material with <1%. (Contact laboratory for information.) {Note: A more sensitive method is available called TEM (transmission electron microscopy). TEM may detect asbestos fibers that PLM cannot see, but the above agencies' enforcement is based on PLM analysis. Rules may differ for states other than Connecticut. It is best to check with the individual state. For example, New York State requires TEM confirmation of negative PLM results on floor tile}.
2. If no asbestos is detected in a sample, or if the asbestos content is less than 1% by PLM, additional samples of the same material should be submitted for confirmation. Please check with the laboratory for guidance on the number of samples needed. Sample collection in Connecticut must be by a DPH Licensed Asbestos Inspector. Many other states also require licensing.
3. Floor Tile Mastic: Mastic under floor tile should be separately sampled by scraping some of the mastic from the floor to avoid contamination from the floor tile.
4. Although Chem Scope, Inc. takes great effort to insure accuracy in the estimation of asbestos in the materials analyzed, no quantitation method is without some uncertainty. Based on independent calibration studies and comparison of Chem Scope's quantitative results with NVLAP and AIHA round robin programs we estimate our uncertainty in quantitation to be relatively small. The average relative uncertainty of the estimate is calculated to be 35% for samples that contain less than 10% asbestos. This means a estimate of 10% asbestos in a sample has a probable range of 6.5% to 13.5% while an estimate of 1% has a range of 0.65% to 1.35%.
5. The presence of non-asbestos components, which are recognized by the PLM analyst, is reported with the estimated amounts. This is not an exhaustive analysis for the non-asbestos materials since the primary purpose is to determine if asbestos is present and, if so, how much is present of each type of asbestos.
6. Results reported apply only to the sample(s) analyzed.
7. Special treatment of samples: Chem Scope, Inc. routinely uses gravimetric sample reduction techniques such as low temperature ashing or acid dissolution on samples like floor tile, roofing materials, glue dots, or high cellulose content samples prior to PLM analysis. These methods are used to aid in the PLM analysis and to provide better quantitative data. Layered samples, if possible, are analyzed separately as individual layers. However, in accordance with the method, if any layer contains >1% asbestos (greater than 1%) it is to be considered an asbestos containing material. All results are reported to the original sample basis.
8. Sample results are not corrected for blanks. Analytical blanks are run daily and if contamination is suspected the samples are rerun.
9. Chem Scope, Inc. performs "400 point" point counting when the asbestos content is visually estimated to be less than 10%. There is no additional charge for this analysis.

The Scope of Accreditation referenced in this report applies to bulk asbestos fiber analysis by PLM (Polarized Light Microscopy).

Accreditation does not imply endorsement by NVLAP, NIST or any Federal or State Agency.

This report pertains only to the samples tested and may not be reproduced in part.

Condition of the samples at the time of receipt was acceptable unless otherwise noted on the Certificate of Analysis.

See test parameters above and attached chain of custody form.

We would love to hear from you. Comments? Questions? Please call or email us at chem.scope@snet.net.

ChemScope, Inc. is accredited by AIHA LAP, LLC LAB #100134
NVLAP Lab Code 101061-0.

Connecticut Department of Public Health (DPH) Approved Environmental Lab PH 0581

Signature

 Analyst

Signature
 (if applicable)

 Inspector

Authorized Signature or
 Suzanne Cristante
 Laboratory Director

Authorized Signature or
 Izabela Kremens
 Quality Manager

Authorized Signature

 Ronald Arena
 President

CHAIN OF CUSTODY

Emailed _____
 Faxed _____
 Called _____
 Logged _____

Site 022 (Vogler) - Application #1036

Sample Source: 21 Tremont Street, Milford, CT

CS Job CS# 183-480

Sampled by: Leigh Hunsford Date Sampled: 7-3-14 Customer Name: Diversified Technology Consultants (DTC) -

[illegible]

Sample Turnaround: 1 week 3/10/14

Analysis Requested(if variable, use comment column) PLM

Check if you want sample returned _____ (sampled will be disposed of after 30 days).

Relinquished by One Person Date 7/3/14 Time 3:30 pm Received by In Lab Box
Relinquished by _____ Date _____ Time _____ Received by _____

Other Special Instructions: _____

Result Transmittal Instructions (for Chem Scope to transmit): Tell DS

FOR CHEM SCOPE, INC. TO FILL OUT IF SAMPLES ARE GOING TO OUTSIDE LAB:

Name of Laboratory: _____ Method of Transportation to Laboratory: _____

Result Transmittal Instructions (for outside Lab to Chem Scope, Inc): ***PLEASE FAX RESULTS***

The person submitting samples is responsible for obtaining true and representative samples, for complying with applicable regulations and for the use of the data obtained from the analysis. For example, many states have licensing and laboratory approval requirements. Please contact the individual states if you have any questions regarding specific sampling or approval requirements. For Connecticut sites, we have licensed inspectors available to collect client samples and to perform building inspections.

Dear Laboratory Customer or Potential Customer,

COC-1 revised 11/1/13
(Issued By SC)

New laboratory accreditation standards require us to provide our clients information about our services to make sure that your requirements for testing are adequately defined, documented and understood. The following is for your information. Please call us if you have any questions or comments.

Type of Samples:

- / / PCM cassettes are routinely run by NIOSH Method 7400.
- / / Bulk materials are run by EPA Method: #600/R-93/116.

Air Samples: NIOSH 7400 Method counts all fibers. This method may be used for personal air samples and for finals. Two field blanks must be submitted for each set of samples. In the unlikely event that there is to be any deviation from the standard test, you will be consulted by phone before the work begins. Those clients who have not had NIOSH 582 or AHERA asbestos training courses (either supervisor or project monitor) should consult with the lab director for more information. The test parameters are further explained in the analytical report.

Bulk materials: sampled are analyzed by the latest EPA Method: (#600/R-93/116) which uses polarized light microscopy (PLM). When asbestos is detected and the amount is estimated to be <10%, we automatically point count the samples. When there are interfering substances present, we may use ashing, acid washing or other procedures described in the method to handle the interference. Those clients who have not had AHERA asbestos training courses (either inspector, supervisor or project designer) should consult with the lab director for more information. The test parameters are further explained in the analytical report.

All Samples must be clearly labeled with source name and identification number or sufficient information from the client to make this sample uniquely identified. (We will then add our notebook #, page # (batch) and unique number within the batch.) Samples must be in a clean, air tight package such as a zip loc bag. Appropriate completed paperwork must accompany the sample. Bulk and air samples may not be submitted in the same package.

As soon as available bench top results will be faxed to you and reports will then be mailed. We will retain air samples for at least three months and bulk samples for 6 months unless you advise us otherwise.

You are welcome to visit the laboratory at any time to discuss the work, monitor the work or verify our testing services. We appreciate your business and encourage any feedback regarding improving our services or our quality system. Please take a minute to complete the following survey and mail/fax it to ChemScope, Inc.

Customer Service Survey

To help us improve our services give your opinions to the following:

- 1- The printed laboratory report was complete and easy to understand. ☐ YES ☐ NO
If no, please explain _____.
- 2- The turn around time for results met your expectations/needs. ☐ YES ☐ NO
If no, please explain _____.
- 3- How likely are you to recommend ChemScope Inc. to someone?
☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor
- 4- How likely are you to return to ChemScope in the future if the need arises?
☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor
5. On a scale of 1 to 5 where 1 represents "Satisfied" and 5 represents "Dissatisfied", how would you rate your level of overall satisfaction.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- 6- Please add any additional comments or suggestions that would be helpful when you use our services:

Name _____

Company _____

Address _____

Telephone/e-mail _____

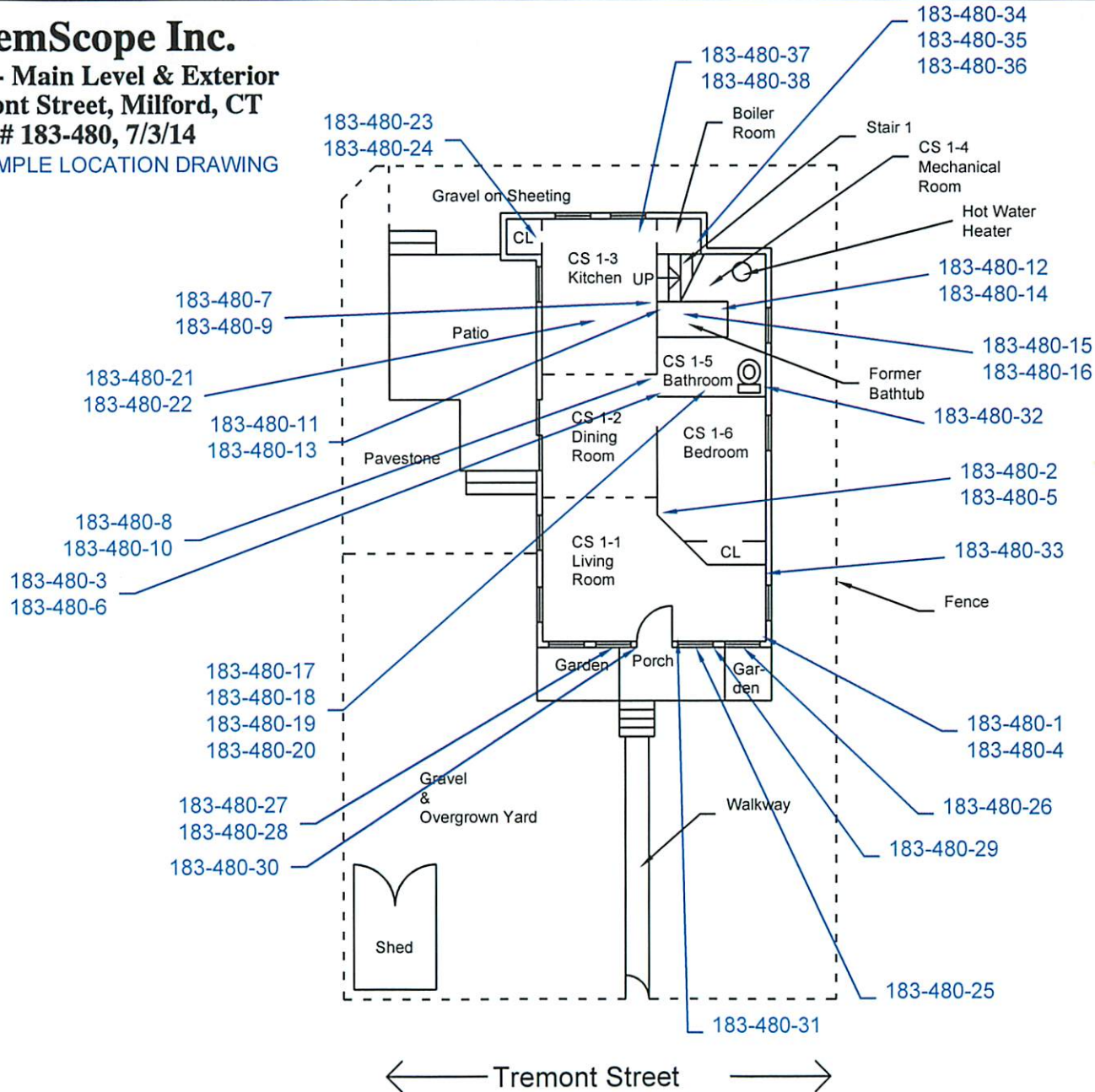
Can we contact you regarding this survey? ☐ YES ☐ NO

ChemScope Inc.

Residence - Main Level & Exterior
21 Tremont Street, Milford, CT

CS# 183-480, 7/3/14

BULK SAMPLE LOCATION DRAWING



LEGEND OF SYMBOLS

1 BULK SAMPLE LOCATIONS

NOTATIONS

DRAWN BY
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:

ASBESTOS, LEAD &
MOLD INSPECTION

21 TREMONT ST
MILFORD, CT

MAIN LEVEL
& EXTERIOR

CHEMSCOPE NUMBER
CS# 183-480

SCALE
NOT TO SCALE

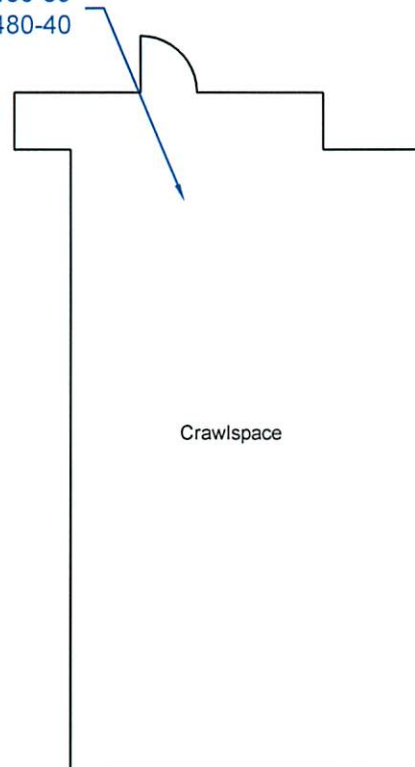
DATE
7/3/2014

DRAWING NUMBER

1 B

ChemScope Inc.
Residence - Crawlspace
21 Tremont Street, Milford, CT
CS# 183-480, 7/3/14
 BULK SAMPLE LOCATION DRAWING

183-480-39
 183-480-40



← Tremont Street →



LEGEND OF SYMBOLS

1	BULK SAMPLE LOCATIONS

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

**ASBESTOS, LEAD &
 MOLD INSPECTION**

**21 TREMONT ST
 MILFORD, CT**

CRAWLSPACE

<small>CHEMSCOPE NUMBER</small> CS# 183-480	<small>DRAWING NUMBER</small> 3 B
<small>SCALE</small> NOT TO SCALE	
<small>DATE</small> 7/3/2014	

ChemScope

INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610

Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

8/8/2014

**PRELIMINARY MOLD ASSESSMENT
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 1 OF 5**

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Recommendations	4-5
Limitations of Assessment	5

Attachments:

- Site Drawings – 2 page(s)

Report Distribution:

Scott Feulner, DTC Scott.Feulner@teamdtc.com
Curtis Graham, DTC graham.curtis@teamdtc.com
Michael Casey, DTC michael.casey@teamdtc.com

File Location:

D:(dan):\\myfilesds\\mydocuments\\Mold\\indoorfo_2014.doc

This investigation and information provided in this report depends partly on background information provided by the client. This report is intended for the use of the client. The scope of services performed may not be appropriate for other users and any use of this report by third parties is at their sole risk. This report is intended to be used in its entirety. No excerpts may be taken to be representative of this report.

It is possible that hidden mold may be growing inside the building cavities. Some floor, wall or ceiling demolition would be needed to find hidden mold.

**PRELIMINARY MOLD ASSESSMENT
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 2 OF 5**

INTRODUCTION

EXECUTIVE SUMMARY: Based on our assessment, the only suspect mold growth seen was in the crawlspace. All materials tested from the first and second floor were dry at the time of our assessment.

BUILDING DESCRIPTION: The subject building is a single-family, two-story, conventional-style house totaling approximately 1100 sq ft, which was built in 1920 of wood-frame construction. Heat was supplied from a boiler in the mechanical room. There is a crawlspace under the first floor space. At the time of our inspection the heat, electricity and water were not in service and the house was unoccupied.

BACKGROUND: We understand the subject house suffered damage as a result of hurricane Sandy on October 29-30, 2012. The house is scheduled to be renovated and raised. We understand the water from the storm reached just above the floor level. We understand the scope of the renovations to be as follows: raising the dwelling above the base flood elevation; replacing the first floor windows and doors; restoring the interior walls, floors, and trim. Replacing the kitchen cabinets and appliances. Replacing the first floor bathroom, MEP systems and wood stairs. On the second floor, construct a new bathroom within existing bedroom space.

INSPECTION AND TESTING: Dan Sullivan of Chem Scope, Inc. was at the site on 7/1/2014 to conduct the subject tests. Most of the doors and windows were open at the time of our inspection, which was normal given the weather conditions. Our work included:

- Visual inspection
- Temperature/Humidity and Moisture in building materials

SCOPE OF WORK: Our client has hired us to do a preliminary mold assessment of the first floor and crawlspace, where there was past water damage.

MOLD ASSESSMENT REPORT SYNOPSIS

Observations from Visual Inspection/temperature and humidity testing:

We arrived on site at around 8:00 AM. It was raining at the time of our assessment. The temperature at the time of our assessment was about 80 deg F. We were let into the house by our client. The house was vacant and has been since the storm. Most of the sheetrock walls have already been removed down to bare wood studs. There was no visible mold or noticeable smells/odors in the first floor and second floor rooms.

All materials tested on the first floor and second floor had <25% WME (wood moisture equivalents).

The crawlspace is under the entire first floor and there is access from the back of the house. The crawlspace has a soil floor (covered with a poly barrier) and a wood ceiling. There are no stored materials in the crawlspace. There is visible suspect mold growth on the wood ceiling to the crawlspace and on wooden beams and framing. The soil is a naturally occurring place where mold is certain to be present and now wet we have to assume there is mold growth, which is not likely to become visible.

PRELIMINARY MOLD ASSESSMENT
SITE 022 – 21 TREMONT STREET, MILFORD, CT
APPLICATION #1036
CS#183-480, 7/3/2014, PAGE 3 OF 5

MOLD ASSESSMENT REPORT SYNOPSIS (cont)

The temperature and humidity, inside vs outside was determined using a sling psychrometer. Normal dew point levels are generally considered between 10 and 21 °C (50 and 69 °F). In areas with dew points under 10 °C (50 °F), the air is considered too dry. In areas with dew points above 21 °C (69 °F), the air is considered too humid. Normal relative humidity for a house is 30-50% depending on the outdoor climate. Humidity and dew points in the house were elevated for the exterior conditions that day, which is typical for a house that has been closed and unoccupied in the summer. The humidity in the crawlspace was elevated as expected given the conditions of the day and a damp soil crawlspace floor.

Table 1 - Temperature & Humidity Results (7/3/2014, Pressure 761 mm Hg)

Location	Dry Bulb (°F) (Room / Air Temperature)	Wet Bulb (°F)	%RH	Dew Point (°F)
1-1 Living Rm	78	75	87	74
1-2 Dining Rm	78	74	83	72
1-3 Kitchen	78	74	83	72
1-5 Bathroom	77	73	83	71
2-1 Bedroom	81	74	72	71
Crawlspace	73	70	86	69
Exterior	81	70.5	59	66

A Protimeter Moisture Measurement System (Marlow England) was used to measure the amount of moisture in various surfaces and materials in terms of wood moisture equivalents (WME). This device has two pin-point probes, which are inserted in the surface and the conductivity is used to measure moisture in the material as % H₂O. Moisture is important to detect potential biological growth. The normal amount of moisture in each material varies with humidity. Materials which have >30% H₂O are relatively damp and may be wet enough to permit mold growth. A material with 70% H₂O is very wet and likely to have mold growth. This instrument does not measure below 7% moisture, which is considered bone dry. This device was also used to test for room temperature, % relative humidity and dew point. The dew point is a measure of the absolute amount of water in the air and is more useful in comparisons than the relative humidity, which is also affected by temperature.

A Summary of the moisture readings and visual inspection is listed in Table below:

Table 2 – Visible Mold and % Moisture in Building materials (7/3/2014)

Room / Material	% Moisture (WME)	Notes
First Floor / Wood wall framing, Wood floors and lower sheetrock walls	< 20%	No Visible Mold
Crawlspace / Wood ceiling and beams	20-45%	Suspect Mold Growth
Crawlspace / Poly on soil on floor	40-70%	Likely mold growth in damp soil

PRELIMINARY MOLD ASSESSMENT
SITE 022 – 21 TREMONT STREET, MILFORD, CT
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MOLD ASSESSMENT REPORT SYNOPSIS (cont)

General Information about Mold: EPA does not call for routinely air testing for mold in assessment. Mold is always present indoors and outdoors and is a natural and necessary part of the environment. There are no Connecticut or federal health based standards for molds. EPA and other agencies report that molds have the potential to cause health effects. The main concerns are people with allergies, asthma and compromised immune systems. There are thousands of mold species, and many are not yet identified. There is much more to learn and new information is becoming available regularly. In mold assessment, we strive to detect moisture problems that cause excessive biological growth and when appropriate, recommend a plan of corrective action. When moisture problems occur, mold growth is likely if organic materials are not promptly dried up. Hidden mold may exist which cannot be seen without demolition.

RECOMMENDATIONS

See our separate Asbestos Pre-Renovation Inspection Report and Lead Pre-renovation XRF Screening Report for details regarding asbestos and lead present in these areas.

In general, correction of water damage requires first eliminating the source of the water. With the house being raised there should be a great increase in the ventilation below the house, which should address the excess humidity in the crawlspace. Raising the structure and installing a concrete foundation will also address the potential for mold in the soil of the crawlspace.

Instructions for Moisture Remediation: These instructions are intended for trained moisture/mold remediation contractors who are familiar with the terms used and skilled in the operations involved in moisture/mold remediation. Although no mold was seen on sheetrock walls, based on the homeowner's previous renovations, mold is assumed to exist inside the wall cavities and the following instructions should be used:

For the Crawlspace:

1. The work area must be unoccupied except for authorized personnel during subsequent work. Use poly to isolate the work areas from the rest of the building.
2. Negative air must be used to purge out the areas using HEPA filtered blowers, at least 2000 CFM per area. Negative air must be exhausted outside.
3. HEPA vacuums must be used for the cleanup. Thorough HEPA vacuuming is essential.
4. Abrasively clean suspect mold growth from wood ceilings and beams from the crawlspace. Abrasive removal should be done within a negative pressure containment or enclosure and cleaned using HEPA vacuums and tack cloths.
5. Some demolition may be necessary to access all of the suspect mold growth.

Continued

**PRELIMINARY MOLD ASSESSMENT
SITE 022 – 21 TREMONT STREET, MILFORD, CT
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RECOMMENDATIONS (CONT)

For the Crawlspace (cont):

7. Clean out any debris and clean all surfaces. With the owner's approval, spray cleaned surfaces, especially wall cavities with mold inhibitor. Quaternary ammonium compounds are preferred mold growth inhibitors. Only EPA/DEEP registered fungicides may be used such as Fiberloc Shockwave^R and Aftershock^R. Any product used at the contractor's discretion to kill mold or to deter future mold growth must be an EPA/DEEP registered fungicide including any sealant finishing products.
8. Replace with new mold-free similar materials.
9. After the work is complete, a final visual inspection is suggested for quality control. Air samples could be run at the conclusion of the work at the owner's discretion. Any testing should be done after the negative air units have been shut off for at least a day.

Limitations of Mold Removal: It is well known in the industry that mold can never completely be removed from a site because of the constant presence of mold spores in the outdoor environment and the ability of molds to remain dormant within a building. If moisture problems recur, mold growth is likely.

For guidance on mold, log onto EPA.gov and search mold remediation or the state DPH web site.

Please call me if there are any questions about this report or if you need further assistance.

Thank you for calling on us.



Dan Sullivan
Vice President, Operations



LEGEND OF SYMBOLS

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

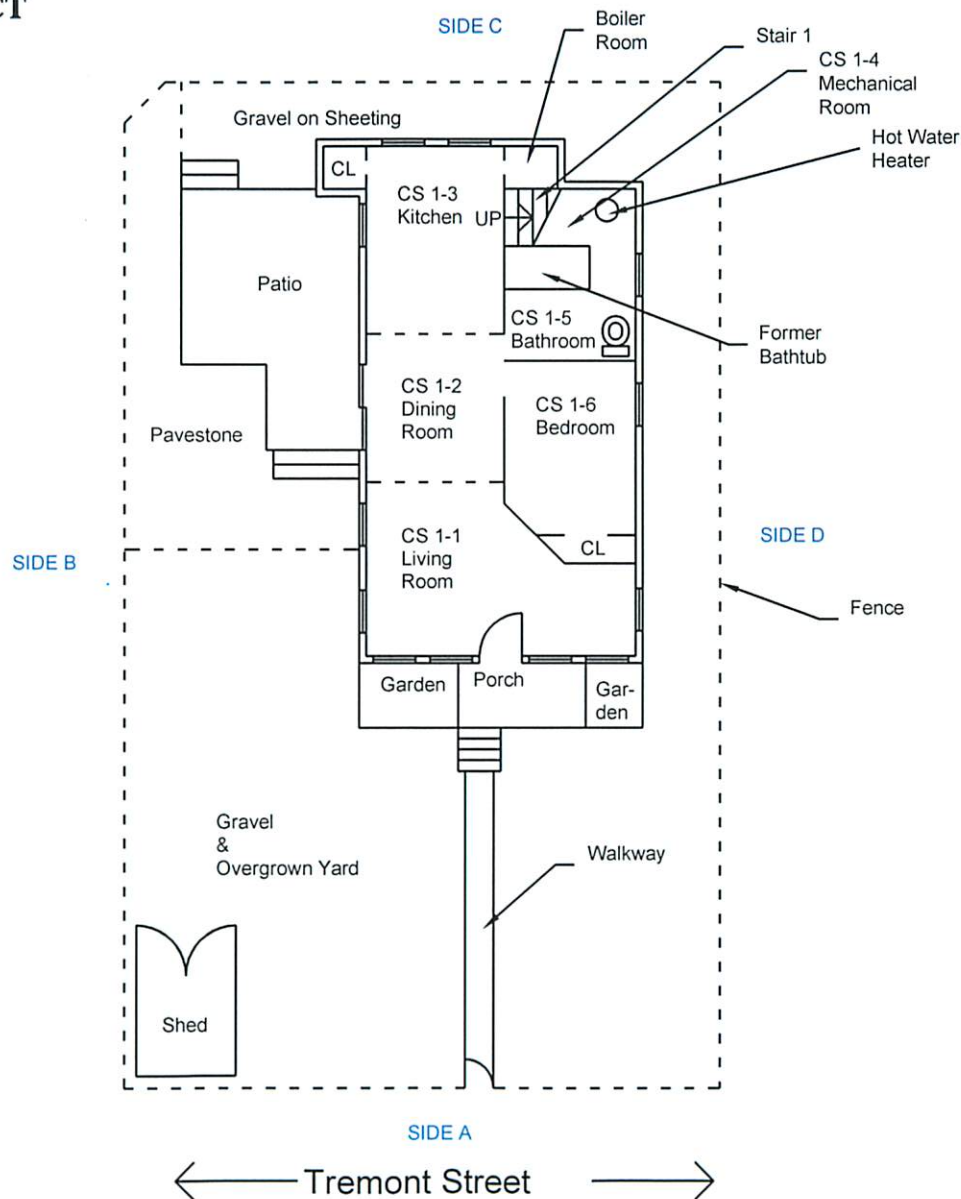
ASBESTOS, LEAD &
MOLD INSPECTION

21 TREMONT ST
MILFORD, CT

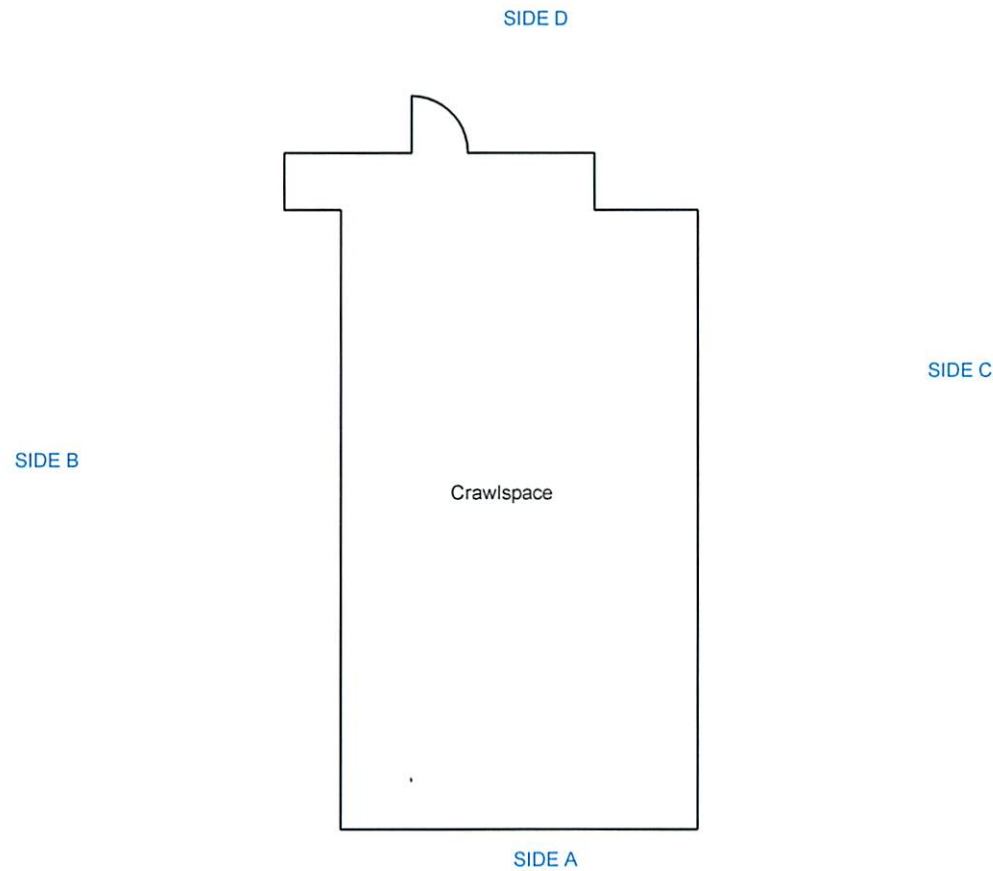
MAIN LEVEL
& EXTERIOR

CHEMSCOPE NUMBER CS# 183-480	DRAWING NUMBER
SCALE NOT TO SCALE	1 S
DATE 7/3/2014	

ChemScope Inc.
Residence - Main Level & Exterior
21 Tremont Street, Milford, CT
CS# 183-480, 7/3/14



ChemScope Inc.
 Residence - Crawlspace
 21 Tremont Street, Milford, CT
 CS# 183-480, 7/3/14



← Tremont Street →



LEGEND OF SYMBOLS

NOTATIONS

DRAWN BY
 LEIGH HONOROF

ChemScope Inc.

SHEET TITLE

ASBESTOS, LEAD &
 MOLD INSPECTION

21 TREMONT ST
 MILFORD, CT

CRAWLSPACE

CHEMSCOPE NUMBER
 CS# 183-480

SCALE
 NOT TO SCALE

DATE
 7/3/2014

DRAWING NUMBER

3 S

Appendix B**DECD/SHPO/DOH Professional Certification Form**

For all General Permit Applications submitted as part of the Flood Management Certification for Disaster Recovery Activities, the following certification must be signed and sealed by a professional engineer licensed to practice in Connecticut.

Property: 21 Tremont Street Milford, CT 06460

Application Number: 1036

"I certify that in my professional judgment, the above referenced project has been designed consistent with the Flood Management Certification for Disaster Recovery Activities as approved by DEEP and that the information is true, accurate and complete to the best of my knowledge and belief.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes."



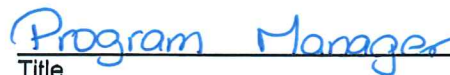
8/17/2015

Signature of Applicant

Date



Name of Applicant (print or type)



Title



8/17/2015

Signature of Professional Engineer

Date

J. Andrew Belivacqua

18477

Name of Professional Engineer (print or type)

P.E. Number

Affix P.E. Stamp Here

