



HAZARDOUS MATERIALS IDENTIFICATION REPORT

***SWAN'S ISLAND LIGHT HOUSE COMPLEX
SWAN'S ISLAND, MAINE***



Prepared for:

Town of Swan's Island
Swan's Island, Maine 04685

Prepared by:

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EXECUTIVE SUMMARY

Summit Environmental Consultants, Inc., conducted an assessment to identify hazardous materials on or within structures associated with the Swan' Island Light House complex located on Swan's Island, Maine. The complex consists of four structures:

- **The Keeper's House** – An approximately 1,200-square foot, two story wood framed building with an unfinished basement formerly used as a residence.
- **The Light House** – An approximately 32-foot tall masonry and metal structure historically utilized as a light house.
- **The Bell House** - An approximately 144-square foot, single story wood framed structure formerly known as the Bell Tower; and
- **The Oil House** - An approximately 80-square foot, single story masonry structure formerly used as for kerosene storage.

The structures were unoccupied at the time of the investigation. This investigation focused on identifying Asbestos-Containing Materials (ACM), Lead-Based Paint (LBP), visible mold growth/contamination, hazardous materials and potential Universal Wastes that would require special handling and disposal or would be regulated prior to/during renovation of the structures. Assessment of the Swan's Island Light House complex was conducted on April 8, 2013. The investigation revealed the following relevant information:

1. Identified ACM was determined present in the Keeper's House and included:
 - Nine-inch by nine-inch (9x9) gray mottled floor tile and associated adhesive located on plywood sub-flooring in Bedrooms 1 and 2. (Sample KH007, KH008, respectively);
 - 9x9 red mottled floor tile and associated adhesive located on plywood sub-flooring in the second floor Bathroom. (Sample KH013, KH014, respectively);
 - Cement gasket material in the Basement. (Sample KH001); and
 - Cementitious wall board located around the chimney wall (and one loose board) in the Basement. (Sample KH029).

Suspect ACM was not identified at the Light House, Bell House or Oil House.

2. Potential Universal Wastes including fluorescent lights and light ballasts were identified in the Keeper's House. Those ballasts not labeled as "no-PCB" should be segregated and handled as hazardous waste. Potential Universal Wastes and other hazardous materials were not observed at the Light House, the Bell House or the Oil House.
3. LBP was identified using a portable X-Ray Fluorescence (XRF) Lead Paint Analyzer on surfaces throughout the interior and exterior of each structure.
4. Visible mold growth/contamination was observed in localized areas on the second floor of the Keeper's House. Visible mold growth/contamination was not observed in the other structures.

Should the materials identified above be impacted by planned renovations, removal or remediation is required prior to commencement of renovation activities, in accordance with applicable State of Maine and federal rules and regulations. Complete removal of identified mold impacted materials is recommended.

1.0 INTRODUCTION

Summit Environmental Consultants, Inc., (Summit) conducted an assessment to identify hazardous materials on or within structures associated with Hazardous Materials Assessment of the structures associated with the Swan' Island Light House complex located on Swan's Island, Maine. The complex consists of four structures:

- The Keeper's House – An approximately 1,200-square foot, two story wood framed building with an unfinished basement formerly used as a residence.
- The Light House – An approximately 32-foot tall masonry and metal structure historically utilized as a light house.
- The Bell House - An approximately 144-square foot, single story wood framed structure formerly known as the Bell Tower; and
- The Oil House - An approximately 80-square foot, single story masonry structure formerly used as for kerosene storage.

This investigation was limited to identifying Asbestos-Containing Materials (ACM), Lead-Based Paint (LBP), visible mold growth/contamination, and potential Universal Wastes/hazardous materials/wastes associated with these structures.

2.0 ASBESTOS CONTAINING MATERIALS

2.1 Asbestos Field Survey

The Asbestos Identification Survey was conducted in accordance with the Maine Department of Environmental Protection (MEDEP) Chapter 425 Asbestos Management Regulations (April 3, 2011 revision) to provide information regarding the presence of interior and exterior ACM associated with the structures. As part of this asbestos survey and in accordance with Chapter 425; MEDEP Disclosure Form X (Asbestos Bulk Sampling Protocols) and Form Y (Asbestos Bulk Sample Analysis Protocols) were provided to the client for review and signature prior to commencement of the asbestos survey. Copies of the signed disclosure forms are included in Appendix A. Ms. Deborah A. Kasik (Atlantic Environmental Services (AES) a Summit sub-consultant and representing Summit), an asbestos inspector licensed in the State of Maine, performed the field survey on April 8, 2013. Copies of Ms. Kasik's Asbestos Inspector certifications are included in Appendix B.

Completion of the Asbestos Identification Survey included:

- Visual identification of suspect ACM on the interior and exterior of each structure;
- Collection of thirty-nine (39) bulk samples of suspect ACM in accordance with MEDEP regulations. All 39e bulk samples were collected from the Keeper's House. Suspect ACM was not observed on the interior or exterior of the remaining structures; and,
- Quantification of ACM identified by laboratory analysis.

As with any scientific study, an asbestos identification survey is subject to a variety of limitations. Limitations to be considered in interpreting the results of the survey performed on these structures include the following:

- An asbestos identification survey may not be able to identify all ACM present throughout a facility.

- Variations in building materials used during construction and subsequent renovations.
- Roofing materials were wither determined to be non-suspect ACM (i.e.; slate or newly installed) and were not sampled as part of this assessment.
- Inaccessible areas within wall cavities and under floors.

Bulk samples of suspect ACM collected during the survey were submitted to EMSL Analytical, Inc. (EMSL) of Cinnaminson, New Jersey for analysis. Bulk samples collected during this survey were analyzed using the MEDEP required analytical methods: “PLM-EPA 600/R-93/116” (for surfacing, thermal system insulation and cementitious materials) and “PLM NOB-EPA 600/R-93/116” (for non-friable organically bound materials (NOBs)) (e.g., floor tile, adhesives, and roofing) with “gravimetric reduction”. Samples were analyzed at the EMSL laboratory, which is certified to perform asbestos analysis by both the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Industrial Hygiene Association (AIHA). EMSL is a MEDEP licensed Asbestos Analytical Laboratory. Copies of EMSL’s laboratory certifications are included in Appendix C). Laboratory analytical results and chain of custodies are included as Appendix D.

Bulk samples were collected from the following suspect ACM:

Keeper’s House

- Two types of nine-inch by nine-inch (9x9) floor tiles and associated adhesives;
- One type of twelve-inch by twelve-inch (12x12) floor tile and associated adhesive;
- One type of sheet flooring;
- One type of ceiling tile;
- Two types of wall/ceiling plaster;
- One type of cementitious wall board; and,
- One type of cement gasket material.

Suspect ACM was not observed on the interior or exterior of the Light House, Bell House or Oil House.

The number of samples collected was determined by the number of homogeneous sampling areas identified by the inspector. A homogeneous area is an area that, based on the inspector’s judgment, contains materials that are uniform in color and texture and are present on similar building or utility components.

2.2 Asbestos Sampling Results

According to MEDEP regulation, locations and occurrences of materials that tested positive and are homogenous (similar in color and texture) in nature are considered as ACM, provided the material contains greater than or equal to one percent (1%) asbestos based on laboratory analysis. A material can only be considered negative for asbestos if analytical results from all bulk samples in a group of samples representing that material indicate an asbestos content of less than 1%.

Keeper's House:

ACM identified by laboratory analysis consisted of:

- 9x9 gray mottled floor tile and associated adhesive located on plywood sub-flooring in Bedrooms 1 and 2. (Sample KH007, KH008, respectively);
- 9x9 red mottled floor tile and associated adhesive located on plywood sub-flooring in the second floor Bathroom. (Sample KH013, KH014, respectively);
- Cement gasket material in the Basement. (Sample KH001); and
- Cementitious wall board located around the chimney wall (and one loose board) in the Basement. (Sample KH029).

Locations of identified ACM are presented on Figures 1 through 3. An inventory of ACM identified in the Keeper's House is included in Table 1. Cost estimates (as presented in Table 1) have been prepared to provide a budget for removal of identified ACM. These estimates do not include material replacement costs, regulatory agency notification fees or a contingency. Estimates assume the Contractor will be responsible to prepare the asbestos abatement design(s). Regulatory agency notification fees associated with this project will vary depending phasing and project schedule. Actual abatement costs may vary depending upon the quantity of ACM abated and abatement methods utilized.

3.0 HAZARDOUS MATERIALS ASSESSMENT

Summit conducted an assessment to identify hazardous materials and hazardous wastes, including both Universal Waste and potential Universal Wastes, used or stored at the Swan's Island Light House complex. Current interior and exterior conditions of each structure were visually assessed. A summary of identified materials and associated estimate for removal and disposal of these materials, presented by building, is included as Table 2.

4.0 LEAD-BASED PAINT DETERMINATION

A LBP determination of the four structures associated with complex was conducted by Ms. Deborah A. Kasik (AES), a MEDEP certified Lead Risk Assessor. The purpose of the determination was to identify if LBP was present in or on each structure. The LBP determination was performed in accordance with the established protocols outlined in the State of Maine Department of Environmental Protection's Lead Management Regulations, Chapter 424, Section 7, as they apply to this project. The testing provides information on the LBP content and assessment of condition for the surfaces tested.

The LBP testing was conducted utilizing a portable X-ray Fluorescence Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of lead-based paint. This equipment is licensed with the Maine Department of Human Services Radiation Control Program and operated in accordance with all applicable regulations and conditions of licensure. The determination as to whether or not a component contains LBP is based upon the MEDEP Lead Management Regulations (Chapter 424). The MEDEP defines a component as lead-containing if the XRF result is greater than or equal to (\geq) 1.0 milligrams per square centimeter (mg/cm^2). A visual assessment of the existing condition of the identified LBP was also completed at the time of the determination.

The LBP determination report for each structure is included as Appendix E. Refer to the report for specific type, location, and condition of building materials tested for LBP. Identified LBP materials currently in poor condition and/or are scheduled for renovations are summarized in Table 3.

A summary of identified LBP are presented below:

Keeper's House:

Interior: Ceilings, walls, floors, miscellaneous trim (e.g., baseboards, ceiling trim, closet components, casings and jambs), complete door systems, window trim/sashes and stairwell components.

Exterior: The soffit, fascia and frieze boards, the piazza uppermost clapboard siding/trim (around perimeter), corner pieces, upper trim and support posts.

Light House:

Interior: The metal stairs, wood ceilings on multiple landings, access panel trim on the first level, one stair riser, door casing, jamb and threshold, wood floors (2 types), wood and concrete located at base of final stairs to lantern, metal ceilings, masonry around window units, wood walls, metal floor and ceiling, hatch door and metal around windows.

Exterior: The metal platform (top and underside), metal railings & balusters, and metal base of the lantern drum.

The Bell House:

Interior: The gray support beam, residual gray paint on perimeter floor/wall surfaces, residual gray paint around window frame, and entry door casing and jamb.

Exterior: The door jamb.

Stored components with LBP were also present within this structure.

The Oil House:

Interior: LBP was identified on the wood ceiling, brick walls, shelving, and stored doors.

Exterior: The soffit, fascia & frieze boards, brick masonry siding and damaged pieces of concrete.

5.0 VISIBLE MOLD GROWTH/CONTAMINATION ASSESSMENT

The interior of each structure was visually assessed for visible mold growth/contamination. Visible mold growth was observed on the plaster wall and ceiling surfaces throughout the second floor of Keeper's House. Photographs of areas of identified mold growth are included in Appendix F.

Visible mold growth/contamination was not observed in the Light House, the Bell House or the Oil House.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This investigation revealed the following relevant information:

Asbestos-Containing Materials

Asbestos-Containing Materials in the form of flooring and associated adhesives, cementitious wall board and cement gasket material are present within the Keeper's House. Suspect ACM was not observed on the interior and/or exterior of the Light House, the Bell House or the Oil House.

Regulations require that identified ACM which may be impacted by planned renovation/demolition activity be removed by a MEDEP licensed asbestos abatement contractor in accordance with applicable state and federal regulations prior to disturbance by such planned activities. In accordance with 40 CFR 61, *National Emissions Standards for Hazardous Air Pollutants* (NESHAP), and 06-096 State of Maine, Department of Environmental Protection, Chapter 425, Asbestos Management Regulations (effective date: May 29, 2004), a contractor conducting any renovation and/or demolition activity that would disturb regulated ACM must: (1) notify the U.S. Environmental Protection Agency (USEPA) Administrator and the MEDEP of such activities, (2) use proper removal procedures, (3) use proper engineering controls to limit emissions of asbestos fibers, and (4) utilize proper waste disposal. If any hidden suspect ACM (behind walls, in chases, above permanent ceilings, etc.) is uncovered during renovation or demolition activities, work must be stopped and the material tested for asbestos content. All ACM must be disposed of in accordance with all applicable state and federal requirements.

Additionally, notification requirements, as required by OSHA 29 CFR Parts 1910.001 and 1926.1101, must be adhered to as part of routine communication with employees and outside contractors. Potential contractors bidding on the renovation work must first be informed of the results of this survey. Notification regarding the presence of the ACM must also be provided to employees who occupy an area containing ACM.

Hazardous Materials

Hazardous materials in the form of potential Universal Wastes were observed within the Keeper's House. When removed for disposal, fluorescent light bulbs are considered a Universal Waste and must be properly handled, packaged and disposed. Fluorescent light ballasts contain capacitors that may be filled with PCB-containing dielectric fluid; however, it is unknown whether PCB ballasts (a Universal Waste) are present in the building. The recommended best management practice is to individually remove each light fixture and individual ballasts evaluated to confirm the presence or absence of PCBs. Non-PCB light ballasts will be clearly labeled as not containing PCBs and may be disposed of as solid waste. If no such labeling is present, the ballast should be treated as PCB-containing and should be segregated and handled as Universal Waste.

Hazardous materials and potential Universal Wastes were not observed at the Light House, the Bell House and the Oil House.

Lead Based Paint

LBP was identified on surfaces associated with each structure. Under current federal and state regulations, LBP removal must be performed on a residential structure built prior to 1978 must be performed by a USEPA Certified Remediation Firm, as outlined in the Renovation, Repair

and Painting Rule (RRP) 40 CFR 745 Subpart E; effective date April 22, 2008. The 'RRP' rule identifies lead safe work practices to be performed as part of the renovation process. Work performed on the interior or exterior of the Keeper's House that impacts LBP must be performed in accordance with these requirements.

For non-residential structures, LBP does not have to be removed from a structure prior to demolition, renovation or removal of specific building components. However, the following regulations/requirements must be followed in relation to disturbance of LBP during renovation or demolition:

- OSHA 29 CFR 1926.62 requires that an employer protect their personnel from exposure to lead dust during construction or renovation. While primarily an issue for the renovation or abatement contractor, the Owner is responsible to notify all parties involved in the work of the knowledge or presumption that painted surfaces may contain lead.
- The MEDEP requires that building components with LBP be disposed in a licensed Construction and Renovation (C&D) Landfill, and that a manifest documenting the transport and disposal of this material be provided to the Owner.

For either residential or non-residential structure, LBP removed (e.g., scrapped, chipped) from surfaces must be analyzed using a toxicity characteristic leaching procedure (TCLP) test to determine whether the residue is considered a hazardous waste. If TCLP results indicate levels of leachable lead in excess of 5.0 parts per million (ppm), the resulting waste must be disposed of as a hazardous material.

Specific recommendations for managing identified LBP are included in Table 3.

Mold growth/Contamination

Mold growth was observed on the plaster wall and ceiling surfaces on the second floor of the Keeper's House. During the assessment, condensation was also observed on building components throughout the second floor which is attributed to a lack of temperature regulation and lack of ventilation. These conditions can promote mold growth.

Due to extent of visible mold growth on the plaster wall and ceiling surfaces, it is recommended that the plaster surfaces throughout the second floor be removed and any mold within the wall and ceiling cavities be removed. Following removal of the plaster containing mold, future renovations should consider the regulation of ambient temperatures and adequate ventilation system to mitigate the potential for future condensation and mold growth.

Visible mold growth was not observed at the remaining structures.

7.0 REPORT CERTIFICATION

This report was prepared and reviewed by Summit Environmental Consultants, Inc. for the sole use of the Town of Swan's Island and its constituents and should not be reproduced without their full, written authorization.

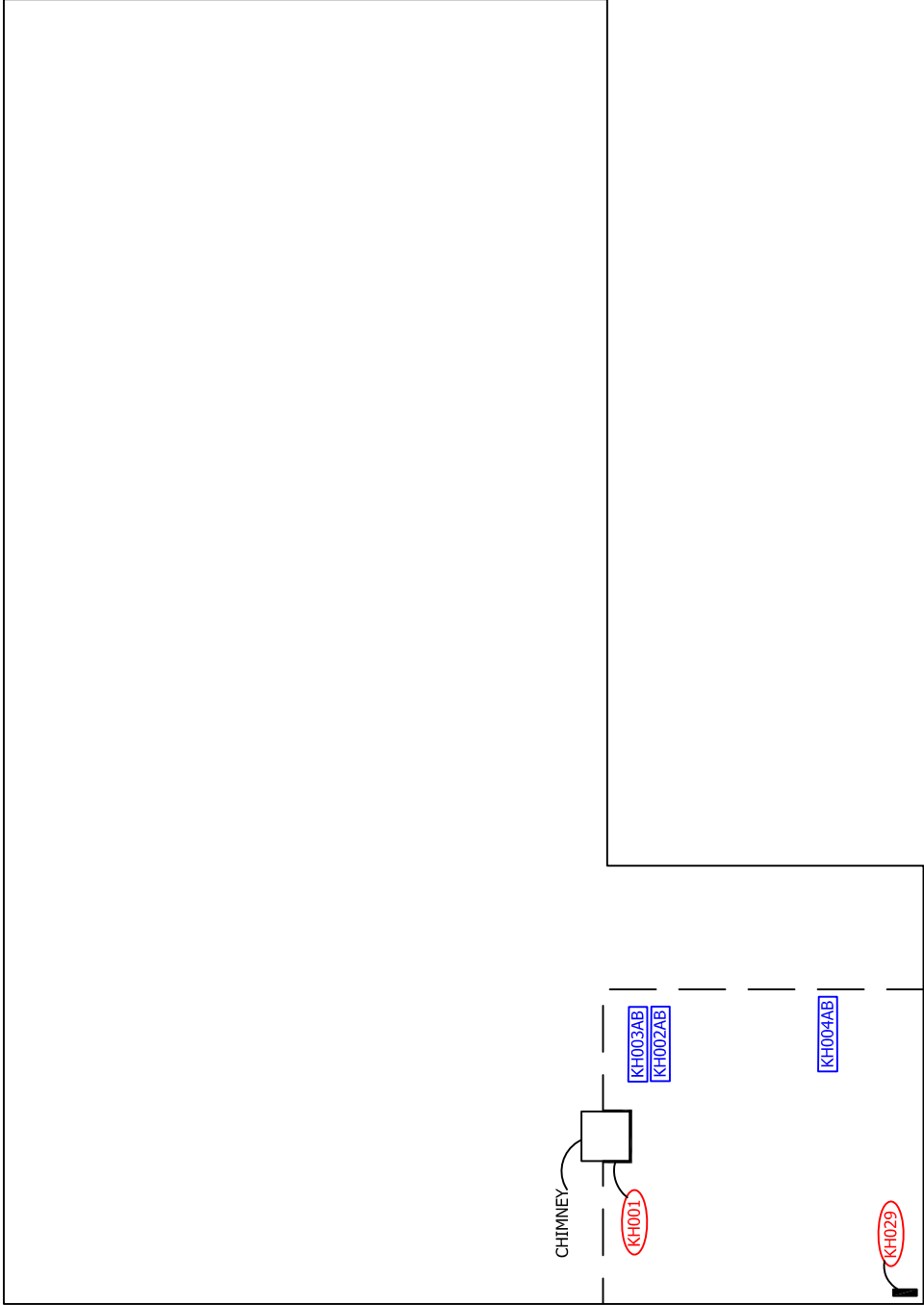


Deborah A. Kasik
MEDEP Asbestos Inspector License No. AI-0177
MEDEP Certified Lead Risk Assessor License No. LR-0003



Dennis B. Kingman, Jr. CHMM
MEDEP Asbestos Inspector License No. AI-0034

Figures



LEGEND:

KH001

= SAMPLE NUMBER AND
LOCATION TESTING
POSITIVE FOR ASBESTOS

KH002AB

= SAMPLE NUMBER AND
LOCATION TESTING
NEGATIVE FOR ASBESTOS

KH009

= SAMPLE NUMBER AND
LOCATION NOT ANALYZED
(POSITIVE STOP)

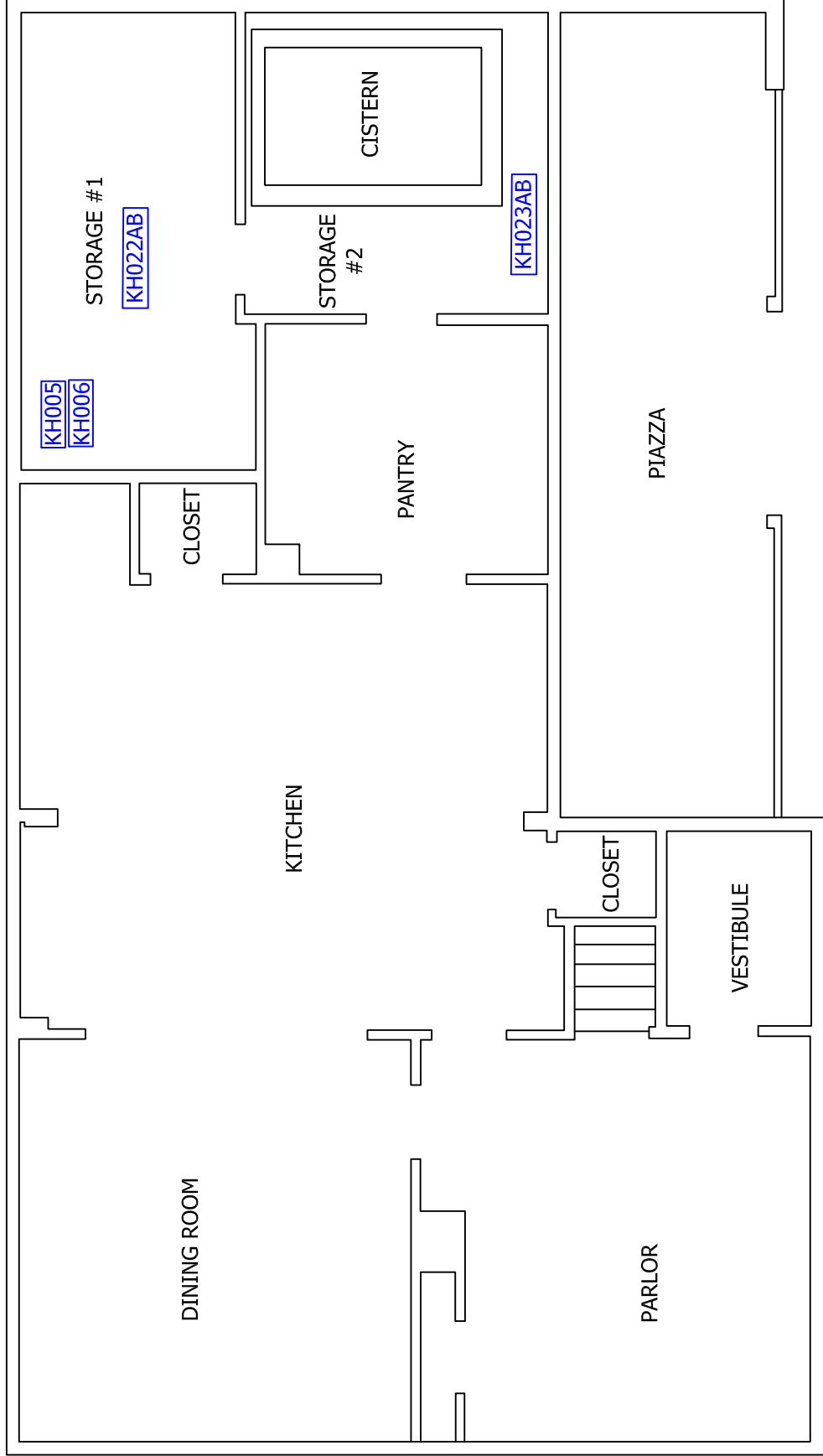



= ACM FLOOR TILE WITH
ASSOCIATED ACM ADHESIVE







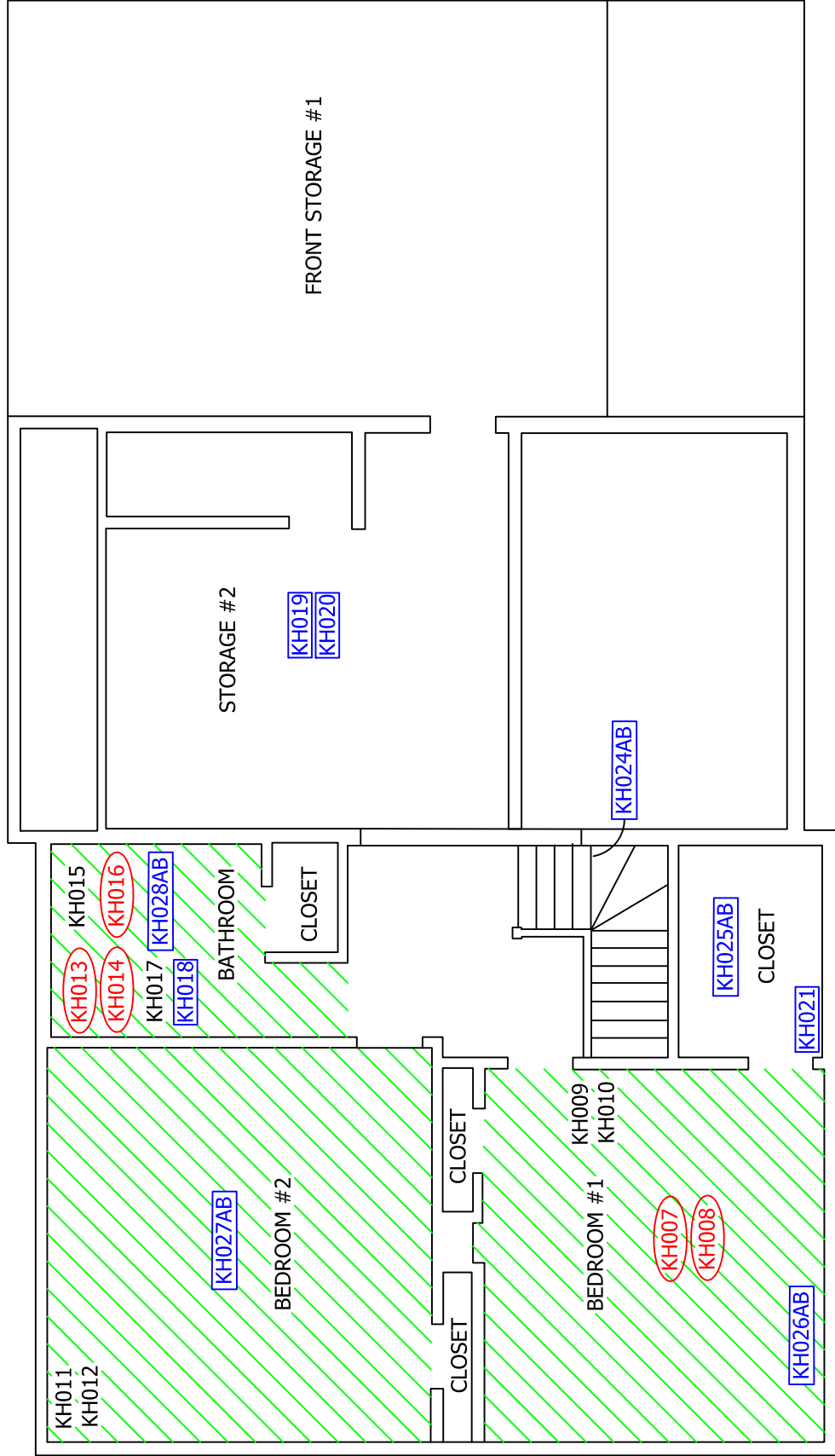
= ACM CEMENTITIOUS PANEL

Client:	Town of Swan's Island	Project:	ASBESTOS IDENTIFICATION SUVEY
 Summit Environmental Consultants, Inc. 640 Main Street Lewiston, Maine 04240 (207) 795-6009		Title:	KEEPER'S HOUSE BASEMENT
		Drawn:	W.E.H.
		Design:	-----
Job Number:	13-3055	Approved:	D.B.K.
		Date:	MAY 2013
		File NO.:	133055.DWG
		Figure:	1



Client:	Town of Swan's Island	Project:	ASBESTOS IDENTIFICATION SUVEY
 Summit Environmental Consultants, Inc. 640 Main Street Lewiston, Maine 04240 (207)795-6009		Title:	KEEPER'S HOUSE FIRST FLOOR
		Drawn:	W.E.H.
		Design:	----
Job Number:		Date:	MAY 2013
		Figure:	2
13-3055		Scale:	NTS
		Approved:	D.B.K.
		File NO.:	133055.DWG

LEGEND:			
	= SAMPLE NUMBER AND LOCATION TESTING POSITIVE FOR ASBESTOS		= ACM FLOOR TILE WITH ASSOCIATED ACM ADHESIVE
	= SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS		= ACM CEMENTITIOUS PANEL
KH009	= SAMPLE NUMBER AND LOCATION NOT ANALYZED (POSITIVE STOP)		



LEGEND:

KH001 = SAMPLE NUMBER AND LOCATION TESTING POSITIVE FOR ASBESTOS

KH002AB = SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS

KH009 = SAMPLE NUMBER AND LOCATION NOT ANALYZED (POSITIVE STOP)

 = ACM FLOOR TILE WITH ASSOCIATED ACM ADHESIVE

 = ACM CEMENTITIOUS PANEL

Client:	Town of Swan's Island	Project:	ASBESTOS IDENTIFICATION SUVEY
		Title:	KEEPER'S HOUSE SECOND FLOOR
		Drawn:	W.E.H.
		Design:	----
		Date:	MAY 2013
		Approved:	D.B.K.
		Scale:	NTS
		Figure:	3
		File NO.:	133055.DWG
		Job Number:	13-3055



Tables

TABLE 1: SUMMARY OF ASBESTOS-CONTAINING MATERIALS – SWAN’S ISLAND LIGHT HOUSE COMPLEX

Location	Sample Number	Quantity	Unit Cost	Abatement Cost	ACM Material
KEEPER'S HOUSE					
Basement					
Basement	KH-001	2 Square Feet (SF)			Cement gasket and associated debris
	KH-029	12 SF			Cementitious wall board and associated debris
First Floor					
Kitchen Closet	KH-007/KH-008	1 Cubic Yard (CY)			Two bags of floor tile debris
Second Floor					
Bed Rooms 1 and 2	KH-007/KH-008	300 SF			9X9 Gray mottled floor tile and associated adhesive
Bathroom	KH-013/KH-014	70 SF			9x9 Red mottled floor tile and associated adhesive
Estimated Total Abatement Cost:					

TABLE 2: HAZARDOUS MATERIALS INVENTORY – SWAN’S ISLAND LIGHT HOUSE COMPLEX


Identified Material	Estimated Quantity	Unit Cost	Estimated Total Cost
KEEPER’S HOUSE			
Fluorescent Light Tubes	12 linear feet (LF)		
Fluorescent Light Ballasts	2 each (EA)		
Transportation	1 Pickup		
Labor	1 Man Days (MD)		
		Estimated Total Cost	

TABLE 3: SUMMARY OF IDENTIFIED LBP – KEEPER’S HOUSE

LBP Affected Surfaces	Location(s)	Recommended Response Action	Estimated Quantity	Unit	Unit Cost	Estimated Remediation Cost
Ceiling (plaster)	1 st Fl – Storage #1 2 nd Fl – Hallway/Stairway	Removal	65	Square Feet (SF)		
Walls (plaster)	1 st Fl – Storage #1 1 st Fl – Storage #2 (‘C’ wall) 2 nd Fl – Hallway/Stairway	Removal	310	SF		
Baseboards (wood)	1 st Fl – Storage #1 1 st Fl – Storage #2 1 st Fl – Kitchen Closet (‘A&B’ sides) 2 nd Fl – Hallway/Stairway 2 nd Fl – Bedroom #1 (incl. closets) 2 nd Fl – Bedroom #2 (incl. closet)	Scrape, Prime, Paint	170	Linear Feet (LF)		
Floors (wood)	1 st Fl – Storage #2 1 st Fl – Kitchen Closets (‘A&B’ sides) 2 nd Fl – Front Storage #1 2 nd Fl – Bedroom #1 Closets 2 nd Fl – Bedroom #2 Closet	Scrape, Prime, Paint	180	SF		
Floors (wood)	2 nd Fl – Hallway 2 nd Fl – Bedroom #1 (beneath FT) 2 nd Fl – Bedroom #2 (beneath FT) 2 nd Fl – Bathroom (beneath FT & tub)	Strip Paint, Restore	210	SF		
Floors (concrete)	1 st Fl – Storage #2	Scrape, Prime, Paint	35	SF		
Door Systems (door, casing, jamb, threshold)	1 st Fl – Storage #1 2 nd Fl – Front Storage #1 2 nd Fl – Storage #2 2 nd Fl – Stairway (at 1 st Fl) 2 nd Fl – Bedroom #1 2 nd Fl – Bedroom #2 2 nd Fl – Bathroom	Restore	9	Systems		
Door Trim only	1 st Fl – Storage #1 (behind cistern) 1 st Fl – Storage #2 1 st Fl – Kitchen Closets 2 nd Fl – Bedroom #1 Closets 2 nd Fl – Bedroom #2 Closet	Scrape, Prime, Paint	60	LF		

TABLE 3: SUMMARY OF IDENTIFIED LBP – KEEPER’S HOUSE

LBP Affected Surfaces	Location(s)	Recommended Response Action	Estimated Quantity	Unit	Unit Cost	Estimated Remediation Cost
Window Sashes and/or Trim	1 st Fl – Storage #1 1 st Fl – Storage #2 2 nd Fl – Stairway 2 nd Fl – Bedroom #2	Scrape, Prime, Paint/Restore	4	Units		
Window Trim only	2 nd Fl – Storage #2 2 nd Fl – Bedroom #1 Closet (‘A’)	Scrape, Prime, Paint	20	Linear Feet (LF)		
Stored Windows & Doors	1 st Fl – Storage #1	Scrape, Prime, Paint	~10 units	Units		
Stair Components (treads, risers)	2 nd Fl – Stairway	Strip to Bare Substrate/Restore	13 treads/14 risers	Each Tread/Riser Combo		
Stair Components (fascia, newell post, shelf)	2 nd Fl - Stairway	Scrape, Prime, Paint	25	Linear Feet (LF)		
Miscellaneous Trim	1 st Fl – Storage #1 1 st Fl – Storage #2 1 st Fl – Kitchen Closets 2 nd Fl – Storage #2 2 nd Fl – Bedroom #1 Closets 2 nd Fl – Bedroom #2 Closet 2 nd Fl – Bathroom Closet	Scrape, Prime, Paint	70	Linear Feet (LF)		
Debris	1 st Fl – Pantry, Kitchen, Parlor, Dining Room, Former Vestibule	Cleaning	150	Square Feet (SQ)		
Say Estimated Total Cost						

TABLE 3: SUMMARY OF IDENTIFIED LBP – LIGHT HOUSE

LBP Affected Surfaces	Location(s)	Recommended Response Action	Estimated Quantity	Unit	Unit Cost	Estimated Remediation Cost
Ceilings (wood)	Interior	Scrape, Prime, Paint	290	Square Feet (SF)		
Masonry Walls around window units (brick)	Interior	Scrape, Prime, Paint	48	SF		
Metal Stairs (tops, faces, undersides)	Interior	Scrape, Prime, Paint	25 treads + 4 landings + 1 riser	All		
Casing, Jamb, & Threshold	Interior	Scrape, Prime, Paint	25	Linear Feet (LF)		
Wood Floors	Interior	Scrape, Prime, Paint	145	SF		
Metal Ceilings & Frames around Windows	Interior – Tower & Lantern	Scrape, Prime, Paint	308	SF		
Metal Floor	Interior - Lantern	Scrape, Prime, Paint	64	SF		
Wood Walls	Interior - Lantern	Remove & Replace and Scrape, Prime, Paint	48	SF		
Hatch Door	Interior - Lantern	Scrape, Prime, Paint	5	SF		
Walkway (top and underside)	Exterior	Scrape, Prime, Paint	290	SF		
Say Estimated Total Cost						

TABLE 3: SUMMARY OF IDENTIFIED LBP – THE BELL HOUSE

LBP Affected Surfaces	Location(s)	Recommended Response Action	Estimated Quantity	Unit	Unit Cost	Estimated Remediation Cost
Residual Paint on Floor/Wall	Interior - perimeter	Scrape, Prime, Paint	50	Square Feet (SF)		
Residual Paint Around Window Frame	Interior	Scrape, Prime, Paint	10	SF		
Entry Door Casing & Jamb	Interior	Scrape, Prime, Paint	36	Linear Feet (LF)		
Say Estimated Total Cost						

TABLE 3: SUMMARY OF IDENTIFIED LBP – THE OIL HOUSE

LBP Affected Surfaces	Location(s)	Recommended Response Action	Estimated Quantity	Unit	Unit Cost	Estimated Remediation Cost
Ceiling (wood)	Interior	Scrape, Prime, Paint	80	Square Feet (SF)		
Walls (brick)	Interior	Scrape, Prime, Paint	360	Square Feet (SF)		
Shelving	Interior	Remove	All	All		
Stored Wood Doors	Interior	Scrape, Prime, Paint	100	Square Feet (SF)		
Masonry Brick	Exterior	Scrape, Prime, Paint	360	Square Feet (SF)		
Painted Concrete (broken)	Exterior – near door and around structure	Remove				
Say Estimated Total Cost						

Appendices

Appendix A

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCLOSURE FORMS X AND Y

**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
DISCLOSURE FORMS X AND Y
TO BE INCLUDED BY OWNER**

Appendix B

ASBESTOS INSPECTOR CERTIFICATIONS

State of Maine
Asbestos Abatement Program

Deborah A. Kasik



Inspector

Cert No. AI-0177

Trn.Exp.Date 03/29/2014

Expiration Date 03/31/2014

This is not a legal form of official identification





PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

State of Maine
Dennis B. Kingman Jr.

Cert 1: MP-0092
Trn.Exp.Date 10/19/2013

Cert 2: AI-0034
Trn.2.Exp.Date 10/19/2013

Expiration Date: 10/31/2013

This is not a legal form of official identification



PATRICIA W. AHO
COMMISSIONER

October 29, 2012

Summit Environmental Consultants, Inc
640 Main Street
Lewiston, Maine 04240



Dear Licensee:

Asbestos application(s) for individual certification of the **two** employee(s) listed below have been received and **approved**. Individual certification numbers are listed below and wallet card(s) are enclosed. Card(s) are property of the individual to whom each is issued. Your responsibility as a licensee is to ensure delivery of the cards to persons in your employment. This letter should be retained for your company files as record of certification.

Remember, in Maine all **certified employees** working on an asbestos abatement project, whether conducting removal/repair, air monitoring, design, inspection, or analysis functions, **must work for a State of Maine licensed asbestos firm** and carry his/her wallet card(s) on the job site.

As a reminder, prior to renewing your asbestos certification, the State of Maine **requires** an annual refresher course to be taken before submitting a renewal application. A certificate shall expire one year from the last day of the month from the date of issuance, **or on the last day of the month that the training certificate expires**, whichever is sooner. A listing of training providers is attached and it is your responsibility to ensure you have completed a renewal training course prior to your training expiration date.

All our asbestos forms can be found at
<http://www.maine.gov/dep/rwm/asbestos/newupdatedformsasb.htm>. Thank you for your cooperation and your completed application(s).

<u>Name</u>	<u>Category</u>	<u>Certification #</u>	<u>Exp. Date</u>
Dennis B. Kingman Jr.	Management Planner	MP-0092	10/31/2013
Dennis B. Kingman Jr.	Inspector	AI-0034	10/31/2013

Sincerely,

Sandra J. Moody

Sandra J. Moody, Environmental Technician
Division of Remediation
Bureau of Remediation and Waste Management

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

Appendix C

ASBESTOS ANALYTICAL LABORATORY CERTIFICATIONS



State of Maine
Department of Environmental Protection

LICENSE

EMSL Analytical, Inc.

Asbestos Analytical Laboratory
(Bulk)

License Number: LB-0039

Expiration Date: 10/31/2013



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: 100194

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- ✓ **INDUSTRIAL HYGIENE**
- ✓ **ENVIRONMENTAL LEAD**
- ✓ **ENVIRONMENTAL MICROBIOLOGY**
- ☐ **FOOD**

Accreditation Expires: 07/01/2014

Accreditation Expires: 07/01/2014

Accreditation Expires: 07/01/2014

Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

S. D. Allen Iske, PhD, CIH, CSP
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 12: 03/29/2012

Date Issued: 07/31/2012



AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: **100194**

Issue Date: 07/31/2012

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

Industrial Hygiene Laboratory Accreditation Program (IHLAP)

Initial Accreditation Date: 02/01/1989

IHLAP Scope Category	Field of Testing (FoT)	Technology sub-type/ Detector	Published Reference Method/Title of In-house Method	Method Description or Analyte (for internal methods only)
Chromatography Core	Gas Chromatography	GC/ FID	NIOSH 1003	
			NIOSH 1005	
			NIOSH 1400	
			NIOSH 1500	
			NIOSH 1550	
			NIOSH 1603	
		GC/ECD	NIOSH 2000	
			NIOSH 5502	
			NIOSH 5503	
			NIOSH 5510	
	GC/MS	GC/NPD	OSHA 1010	
			NIOSH 2551	
		GC/MS	EPA TO-15	
			NIOSH 1501	
			NIOSH 6004	
			NIOSH 6011	
Ion Chromatography (IC)	Gas Chromatography (Diffusive Samplers)		NIOSH 7903	
			OSHA ID-214	
			OSHA ID-215	
			NIOSH 5506	
			NIOSH 2016	
	Liquid Chromatography	HPLC/FL HPLC/UV		

Effective: 09/28/2011

Scope_IHLAP_R6

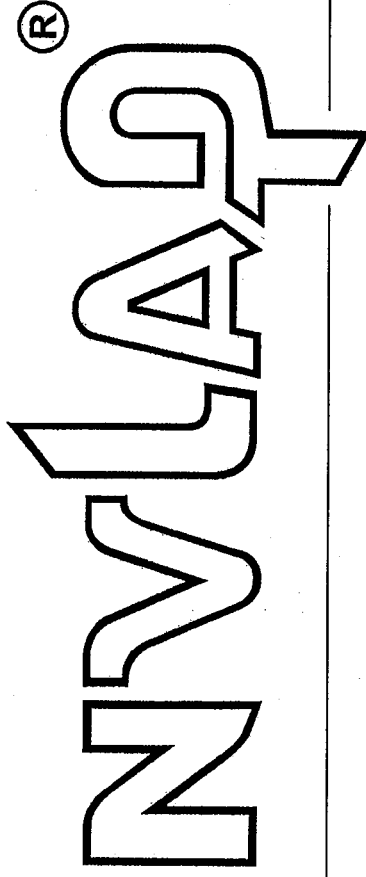
Page 1 of 2

IHLAP Scope Category	Field of Testing (FoT)	Technology sub-type/ Detector	Published Reference Method/Title of In-house Method	Method Description or Analyte (for internal methods only)
Spectrometry Core	Atomic Absorption	CVAA	NIOSH 6009	
			OSHA ID-145	SOP LM-015
			OSHA ID-145	SOP LM-013
		FAA	NIOSH 7082	
		GFAA	NIOSH 7105	
	Inductively-Coupled Plasma	ICP/MS	NIOSH 7300 Modified	
		ICP/AES	NIOSH 7300	
	X-ray Diffraction (XRD)		NIOSH 7500	
			OSHA ID-142	
	UV/VIS (Colorimetric)		NIOSH 6010	
Asbestos/Fiber Microscopy Core	Polarized Light Microscopy (PLM)		EPA 600/R-93/116	
	Phase Contrast Microscopy (PCM)		NIOSH 7400	
	Transmission Electron Microscopy (TEM)		EPA AHERA - 40 CFR Part 763	
			NIOSH 7402	
Miscellaneous Core	Gravimetric		NIOSH 0500	
			NIOSH 0600	
			NIOSH 5524	
	Thermo-optical Analysis (TOA)		NIOSH 5040	

The laboratory participates in the following AIHA-LAP, LLC-approved proficiency testing programs:

- | | |
|--|--|
| <ul style="list-style-type: none"> ✓ AIHA-PAT Programs, LLC IHPAT Metals ✓ AIHA-PAT Programs, LLC IHPAT Organic Solvents ✓ AIHA-PAT Programs, LLC IHPAT Silica ✓ AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (3M) ☐ AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (SKC) ☐ AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (AT) ✓ AIHA-PAT Programs, LLC IHPAT Asbestos ☐ AIHA-PAT Programs, LLC Bulk Asbestos (BAPAT) ☐ AIHA-PAT Programs, LLC Beryllium (BePAT) ✓ HSE Workplace Analytical Scheme for Proficiency (WASP) (Formaldehyde) ☐ HSE Workplace Analytical Scheme for Proficiency (WASP) (Thermal Desorption Tubes) | <ul style="list-style-type: none"> ☐ Pharmaceutical Round Robin ☐ Compressed/Breathing Air Round Robin ✓ National Voluntary Laboratory Accreditation Program (NVLAP - determined at the time of site assessment) ☐ New York State Department of Health (NYS DOH – PCM and TEM) ✓ ERA Air and Emissions standards for indoor air quality ☐ Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA, formerly BGIA) ☐ Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail (IRSST) |
|--|--|

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101048-0

EMSL Analytical, Inc.
Cinnaminson, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

AIRBORNE ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2012-07-01 through 2013-06-30

Effective dates



For the National Institute of Standards and Technology



**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Mr. Stephen Siegel, CIH
Phone: 800-220-3675 Fax: 856-786-5973
E-Mail: ssiegel@emsl.com
URL: <http://www.emsl.com>

AIRBORNE ASBESTOS FIBER ANALYSIS (TEM)

NVLAP LAB CODE 101048-0

NVLAP Code Designation / Description

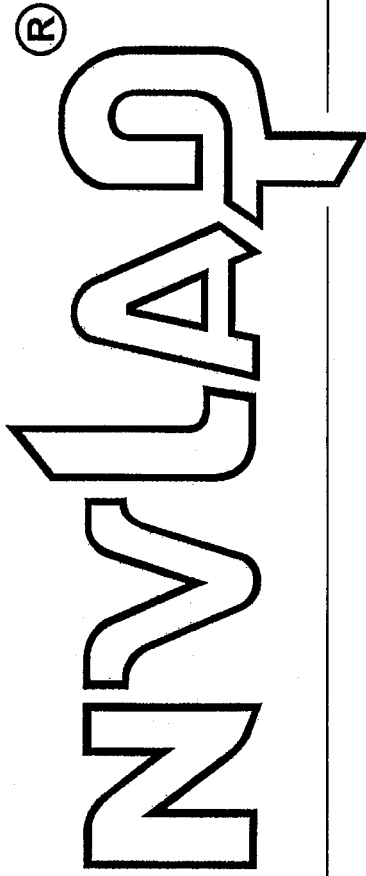
18/A02 U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

2012-07-01 through 2013-06-30

Effective dates

For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101048-0

EMSL Analytical, Inc.
Cinnaminson, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2012-07-01 through 2013-06-30

Effective dates



For the National Institute of Standards and Technology



**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Mr. Stephen Siegel, CIH
Phone: 800-220-3675 Fax: 856-786-5973
E-Mail: ssiegel@emsl.com
URL: <http://www.emsl.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101048-0

NVLAP Code Designation / Description

18/A01 EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2012-07-01 through 2013-06-30

Effective dates

For the National Institute of Standards and Technology

Appendix D

ASBESTOS LABORATORY ANALYTICAL RESULTS



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.emsl.com> / cinnaslab@EMSL.com

EMSL Order ID: 041308931
Customer ID: SUMM78
Customer PO:
Project ID:

Attn: Dennis Kingman
Summit Environmental Consultants, Inc.
8 Harlow Street
Suite 4A
Bangor, ME 04401

Phone: (207) 262-9040
Fax: (207) 262-9080
Collected: 4/ 8/2013
Received: 4/11/2013
Analyzed: 4/18/2013

Proj: 13-3055 Swan's Island Light House

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116 and/or EPA 600/M4-82-020

Client Sample ID: KH001

Lab Sample ID: 041308931-0001

Sample Description: Crawlspace/cement gasket

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	0%	97%	3% Chrysotile	

Client Sample ID: KH002A

Lab Sample ID: 041308931-0002

Sample Description: Crawlspace/plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH002B

Lab Sample ID: 041308931-0003

Sample Description: Crawlspace/plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	2%	98%	None Detected	

Client Sample ID: KH003A

Lab Sample ID: 041308931-0004

Sample Description: Crawlspace/plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH003B

Lab Sample ID: 041308931-0005

Sample Description: Crawlspace/plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	2%	98%	None Detected	

Client Sample ID: KH004A

Lab Sample ID: 041308931-0006

Sample Description: Crawlspace/plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH004B

Lab Sample ID: 041308931-0007

Sample Description: Crawlspace/plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	3%	97%	None Detected	



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.emsl.com> / cinnaslab@EMSL.com

EMSL Order ID: 041308931
Customer ID: SUMM78
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116 and/or EPA 600/M4-82-020

Client Sample ID: KH005

Lab Sample ID: 041308931-0008

Sample Description: 1st floor-storage #1/blue/ gray sheet flooring

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Gray /Blue	0.0%	100%	None Detected	

Client Sample ID: KH006

Lab Sample ID: 041308931-0009

Sample Description: 1st floor-storage #1/sheet flooring mastic

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Insufficient Material	

Client Sample ID: KH007

Lab Sample ID: 041308931-0010

Sample Description: 2nd floor-bedroom #1-center/gray mottled 9" floor tile

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Gray	0.0%	89.8%	10.2% Chrysotile	

Client Sample ID: KH008

Lab Sample ID: 041308931-0011

Sample Description: 2nd floor-bedroom #1-center/mastic (black) on gray 9" tile

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Black	0.0%	91.1%	8.9% Chrysotile	

Client Sample ID: KH009

Lab Sample ID: 041308931-0012

Sample Description: 2nd floor-bedroom #1 near door/9" gray mottled floor tile

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Positive Stop (Not Analyzed)	

Client Sample ID: KH010

Lab Sample ID: 041308931-0013

Sample Description: 2nd floor-bedroom #1 near door/black mastic on gray 9" tile

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Positive Stop (Not Analyzed)	

Client Sample ID: KH011

Lab Sample ID: 041308931-0014

Sample Description: 2nd floor-bedroom #2 corner (C/ D)/9" gray mottled floor tile

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Positive Stop (Not Analyzed)	

Client Sample ID: KH012

Lab Sample ID: 041308931-0015

Sample Description: 2nd floor-bedroom #2 corner (C/ D)/black mastic on red 9" tile

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Positive Stop (Not Analyzed)	



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.emsl.com> / cinnaslab@EMSL.com

EMSL Order ID: 041308931
Customer ID: SUMM78
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116 and/or EPA 600/M4-82-020

Client Sample ID: KH013 **Lab Sample ID:** 041308931-0016

Sample Description: 2nd floor bathroom near toilet/9" red mottled floor tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Red	0.0%	85.6%	14.4% Chrysotile	

Client Sample ID: KH014 **Lab Sample ID:** 041308931-0017

Sample Description: 2nd floor bathroom near toilet/black mastic on red 9" tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Black	0.0%	100%	<0.25% Chrysotile	

Client Sample ID: KH015 **Lab Sample ID:** 041308931-0018

Sample Description: 2nd floor bathroom near corner/9" red mottled floor tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Positive Stop (Not Analyzed)	

Client Sample ID: KH016 **Lab Sample ID:** 041308931-0019

Sample Description: 2nd floor bathroom near corner/black mastic on red 9" tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Black	0.0%	100%	<0.25% Chrysotile	

Client Sample ID: KH017 **Lab Sample ID:** 041308931-0020

Sample Description: 2nd floor bathroom near wall/9" red mottled floor tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Positive Stop (Not Analyzed)	

Client Sample ID: KH018 **Lab Sample ID:** 041308931-0021

Sample Description: 2nd floor bathroom near wall/black mastic on red 9" tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013				Insufficient Material	

Client Sample ID: KH019 **Lab Sample ID:** 041308931-0022

Sample Description: 2nd floor storage #2 near front storage/12" tan tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Tan /White	0.0%	100%	None Detected	

Client Sample ID: KH020 **Lab Sample ID:** 041308931-0023

Sample Description: 2nd floor storage #2 near front storage/yellow mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	4/18/2013	Tan	0.0%	100%	None Detected	



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.emsl.com> / cinnaslab@EMSL.com

EMSL Order ID: 041308931
Customer ID: SUMM78
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116 and/or EPA 600/M4-82-020

Client Sample ID: KH021

Lab Sample ID: 041308931-0024

Sample Description: 2nd floor bed #1 closet/(residual) ceiling tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	70%	30%	None Detected	

Client Sample ID: KH022A

Lab Sample ID: 041308931-0025

Sample Description: 1st floor storage 1/ceiling plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH022B

Lab Sample ID: 041308931-0026

Sample Description: 1st floor storage 1/ceiling plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	5%	95%	None Detected	

Client Sample ID: KH023A

Lab Sample ID: 041308931-0027

Sample Description: 1st floor storage 2 (B wall)/wall plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH023B

Lab Sample ID: 041308931-0028

Sample Description: 1st floor storage 2 (B wall)/wall plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	2%	98%	None Detected	

Client Sample ID: KH024A

Lab Sample ID: 041308931-0029

Sample Description: 1st-2nd stairway/wall plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH024B

Lab Sample ID: 041308931-0030

Sample Description: 1st-2nd stairway/wall plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	2%	98%	None Detected	

Client Sample ID: KH025A

Lab Sample ID: 041308931-0031

Sample Description: 2nd floor bedroom #1 closet/ceiling plaster-skin coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.emsl.com> / cinnasblab@EMSL.com

EMSL Order ID: 041308931
Customer ID: SUMM78
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116 and/or EPA 600/M4-82-020

Client Sample ID: KH025B

Lab Sample ID: 041308931-0032

Sample Description: 2nd floor bedroom #1 closet/ceiling plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	5%	95%	None Detected	

Client Sample ID: KH026A

Lab Sample ID: 041308931-0033

Sample Description: 2nd floor bedroom #1 (B wall)/wall plaster-skim coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH026B

Lab Sample ID: 041308931-0034

Sample Description: 2nd floor bedroom #1 (B wall)/wall plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	3%	97%	None Detected	

Client Sample ID: KH027A

Lab Sample ID: 041308931-0035

Sample Description: 2nd floor bedroom #2/ceiling plaster-skim coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH027B

Lab Sample ID: 041308931-0036

Sample Description: 2nd floor bedroom #2/ceiling plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	3%	97%	None Detected	

Client Sample ID: KH028A

Lab Sample ID: 041308931-0037

Sample Description: 2nd floor bedroom (C wall)/wall plaster-skim coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	White	0%	100%	None Detected	

Client Sample ID: KH028B

Lab Sample ID: 041308931-0038

Sample Description: 2nd floor bedroom (C wall)/wall plaster-brown coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	3%	97%	None Detected	

Client Sample ID: KH029

Lab Sample ID: 041308931-0039

Sample Description: Crawlspace (near chimney)/cement board

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	4/17/2013	Gray	0%	80%	20% Chrysotile	



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
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<http://www.emsl.com> / cinnasblab@EMSL.com

EMSL Order ID: 041308931
Customer ID: SUMM78
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116 and/or EPA 600/M4-82-020

PLM: Certification #BA-0143 (SR) & #BA-0146 (WN)

PLM EPA NOB: Cert# BA-0124(GB)

Analyst(s)

Glenn Brennan	PLM Grav. Reduction	(8)
Samantha Rundstorm	PLM	(15)
William Nguyen	PLM	(8)

Stephen Siegel, CIH, Laboratory Manager
or other Approved Signatory

Any questions please contact Steve Siegel.

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. This test report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. EMSL bears no responsibility for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples. PLM alone is not consistently reliable in detecting asbestos in floor coverings and similar NOBs

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

Initial report from: 04/18/2013 07:09:25



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

041308931

EMSL Analytical, Inc.
200 Route 130 North

Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

Company: Summit Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 8 Harlow Street Suite 4A		<i>Third Party Billing requires written authorization from third party</i>	
City: Bangor	State/Province: ME	Zip/Postal Code: 04401	Country: United States
Report To (Name): Dennis Kingman		Telephone #: (207) 262-9040	
Email Address: dkingman@summitenv.com		Fax #: 207-262-9080	Purchase Order:
Project Name/Number: 13-3055		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: ME		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week
*For TEM Air 3 hr. through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PLM - Bulk (reporting limit)		TEM - Bulk	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)		<input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	
<input checked="" type="checkbox"/> PLM EPA NOB (<1%)		<input type="checkbox"/> NY ELAP Method 198.4 (TEM)	
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)		<input type="checkbox"/> Chatfield Protocol (semi-quantitative)	
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)		<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2	
<input type="checkbox"/> NIOSH 9002 (<1%)		<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)		<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique	
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)		Other	
<input type="checkbox"/> OSHA ID-191 Modified		<input type="checkbox"/>	
<input type="checkbox"/> Standard Addition Method			
<input checked="" type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Date Sampled: April 8, 2013	
Samplers Name: Deb Kasik		Samplers Signature:	
Sample #	HA #	Sample Location	Material Description
✓ KH001	1	Crawlspace	Cement Gasket
✓ KH002A	2	Crawlspace	Plaster-Skimcoat
✓ KH002B	3	Crawlspace	Plaster-Browncoat
✓ KH003A	2	Crawlspace	Plaster-Skimcoat
✓ KH003B	3	Crawlspace	Plaster-Browncoat
✓ KH004A	2	Crawlspace	Plaster-Skimcoat
✓ KH004B	3	Crawlspace	Plaster-Browncoat
✓ KH005	4	1 st Floor - Storage #1	Blue/Gray Sheet Flooring
✓ KH006	5	1 st Floor - Storage #1	Sheet flooring mastic
✓ KH007	6	2 nd floor - Bedroom #1 - center	Gray Mottled 9" floor Tile
Client Sample # (s):		Total # of Samples: 39	
Relinquished (Client): Debra Kasik		Date: 4/10/13	Time: 12:00
Received (Lab): AK		Date: 4/11/13	Time: 10:10A
Comments/Special Instructions: Swan's Island Light House			
NON per Maine DEP regulations			



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

041308931

EMSL Analytical, Inc.
200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

FAX: (856) 786-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
✓ KH008	8/6/07	2 nd floor-Bedroom #1 center	Mastic (Black) on Gray 9" tile
✓ KH009	6	2 nd floor-Bedroom #1 near door	9" Gray Mottled Floor Tile
✓ KH010	8/6/07	2 nd floor Bedroom #1 near door	Black Mastic on Gray 9" tile
✓ KH011	6	2 nd floor Bedroom #2 corner (c/d)	9" Gray Mottled Floor Tile
✓ KH012	7	2 nd floor Bedroom #2 corner (c/d)	Black Mastic on Gray 9" Tile
✓ KH013	8	2 nd floor Bathroom near toilet	9" Red Mottled Floor Tile
✓ KH014	9	2 nd floor Bathroom near toilet	Black Mastic on Red 9" Tile
✓ KH015	8	2 nd floor Bathroom near corner	9" Red Mottled Floor Tile
✓ KH016	9	2 nd floor Bathroom near corner	Black Mastic on Red 9" Tile
✓ KH017	8	2 nd floor Bathroom near wall	9" Red Mottled Floor Tile
✓ KH018	9	2 nd floor Bathroom near wall	Black Mastic on Red 9" Tile
✓ KH019	10	2 nd floor Storage #2 near front storage	12" Tan tile
✓ KH020	11	2 nd floor Storage #2 near front storage	Yellow Mastic
✓ KH021	12	2 nd floor Bed #1 Closet	Residue Ceiling Tile
✓ KH022A	13	1 st floor Storage 1	Ceiling Plaster - Skimcoat
✓ KH022B	14	1 st floor Storage 1	Ceiling Plaster - browncoat
✓ KH023A	13	1 st floor Storage 2 (B wall)	Wall Plaster - Skimcoat
✓ KH023B	14	1 st floor Storage 2 (B wall)	Wall Plaster - browncoat
✓ KH024A	13	1 st -2 nd stairway	Wall Plaster - Skimcoat
✓ KH024B	14	1 st -2 nd stairway	Wall Plaster - browncoat
✓ KH025A	13	2 nd floor Bedroom #1 Closet	Ceiling Plaster - Skimcoat
✓ KH025B	14	2 nd floor Bedroom #1 Closet	Ceiling Plaster - browncoat
✓ KH026A	13	2 nd floor Bedroom #1 (B wall)	Wall Plaster - Skimcoat
✓ KH026B	14	2 nd floor Bedroom #1 (B wall)	Wall Plaster - browncoat
<p>*Comments/Special Instructions: Swan's Island Light House</p> <p>NON per Maine DEP regulations BII To: Summit Environmental Consultants, Inc., 640 Main Street, Lewiston, ME, 04240, United States</p>			

13 APR 11 AM 11:31

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Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

041308931

EMSL Analytical, Inc.
200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

FAX: (856) 786-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

[illegible]

***Comments/Special Instructions:**

Swan's Island Light House

NON per Maine DEP regulations

BillTo: Summit Environmental Consultants, Inc., 640 Main Street, Lewiston, ME, 04240, United States

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13 APR 11 AM 11:31

Appendix E

LEAD-BASED PAINT DETERMINATION REPORT

April 29, 2013

Dennis Kingman
Summit Environmental Consultants, Inc.
8 Harlow Street, Suite 4A
Bangor, Maine 04401

RE: Lead-Based Paint Inspection Results
Swan's Island – Keeper's House
AES Job #: 13-145

Dear Mr. Kingman:

Atlantic Environmental Services has completed the environmental lead-based paint inspection at the two-story, Keeper's House located at Swan's Island Light Station in Swan's Island, Maine. ***An environmental lead-based paint inspection is defined as a surface-by-surface assessment to determine the presence and condition of lead-based paint.***

Purpose

The purpose of this testing was to determine the presence of lead-based paint on building components throughout the interior and exterior of both of the building and assess the condition of the paint. The lead-based paint inspection was performed utilizing a portable X-ray Fluorescence Analyzer (XRF) that non-destructively tests for the presence of lead on building components.

Lead Inspection Procedures

On April 8, 2013, I, Deborah A. Kasik, *ME DEP* certified Lead Risk Assessor, License #LR-0003, performed the Lead-Based Paint Inspection.

The lead-based paint inspection was performed in accordance with the established protocols outlined in the *State of Maine Department of Environmental Protection's Lead Management Regulations*, Chapter 424, Section 7, as they apply to this particular project. Side designations relative to this lead report have been indicated on Figures 1 through 3.

The lead-based paint inspection was conducted utilizing a portable X-ray Fluorescence Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of lead-based paint. This equipment is licensed with the Department of Human Services Radiation Control Program and operated in accordance with all applicable regulations and conditions of licensure.

Explanation of Analysis Methods

The X-ray Fluorescence Lead Paint Analyzer is a complete lead paint analysis system that quickly, accurately, and non-destructively measures the concentration of lead-based paint on surfaces. X-ray Fluorescence is a common technique utilizing gamma rays to bombard the surface, causing the atoms in the paint to emit characteristic X-rays. These characteristic X-rays are detected and analyzed to provide the apparent lead concentration information.

The RMD LPA-1 has the ability to read concentrations of lead in paint up to 9.9 milligrams per square centimeter; if the content of lead in the paint is greater than 9.9, the reading for that component will be listed as >9.9 mg/cm². The minimum detection limit of this particular equipment is 0.3 milligrams per square centimeter.

Calibration of the equipment is required by regulation and, as indicated on the XRF Calibration Log, the readings were within the limits established by the manufacturer.

Limitations

In certain circumstances, leaded components may be covered by other building components, such as paneling over a painted wall or carpeting over a painted floor. It should be understood that the lead testing process is non-destructive, unless authorization has been received by the Owner to access otherwise inaccessible components. In such cases, the Owner can either assume that these inaccessible components contain lead-based paint or have them tested when renovation work may disturb them. The XRF readings obtained on the accessible surface are therefore for that surface only (i.e. XRF reading on paneling) and do not apply to the surface beneath it.

IMPORTANT NOTE: Please refer to this section when doing renovation work. The test results provided within are for accessible surfaces only (the inspection process is non-destructive); the equipment cannot penetrate through sheetrock to a plaster wall behind it, for example. Therefore, it is IMPERATIVE that prior to any 'demolition' phase of a renovation, areas that will be removed must be checked for secondary walls, etc. and tested for the presence of lead-based paint.

Observations

Lead-based paint testing was performed on accessible components both on the interior and exterior of this residential structure. For convenience, a listing of all of the identified lead-containing components is provided herein. Please note that window restoration has occurred throughout most of the building with exceptions. It is essential to understand that although the windows have been restored, in some cases lead paint may still be present (as indicated on the field sheets). Therefore, the windows should also become part of the lead-based paint maintenance program for the structure.

Also noted was the fact that the first floor level has already been renovated, again with a few exceptions, and the lead-containing components in these renovated areas were found to be in good-fair condition. Those areas where no renovation (or very little) work has occurred, lead components still remain that should be addressed. During the inspection, visible paint chip debris/dust was indicated. A recommendation for cleaning has been made.

The exterior of the building was previously renovated; new siding and cornerboards, as well as window and door trim were installed. The soffit, fascia and frieze board are original to the building, as is trim indicated on the piazza. All of the exterior trim was found to be in good-fair condition at the time of the inspection.

The lead-based paint list can be utilized as an appendix to your maintenance program for the building. It is essential that all documentation relative to the residence be maintained.

Explanation of Results

Components that contain lead-based paint are those with XRF readings at or above the State of Maine Department of Environmental Protections' limit for lead of 1.0 milligram per square centimeter.

The condition of the paint has been assessed in accordance with the definitions outlined in the DEP regulations. There are three different classifications for paint condition - good, fair, and poor, which are 'generally' defined as follows:

- GOOD: paint which is entirely intact.
- FAIR: paint is intact, but worn; minor chips are evident as a result of normal wear and tear; no adhesion or substrate problems, e.g. no broken wallboard is present.
- POOR: paint is severely worn, weathered, or no longer adhering, i.e. peeling, cracking, flaking, chalking; or the substrate is broken, exposed, or otherwise deteriorated.

More detailed definitions for each condition of paint can be found in the DEP Lead Management Regulations, Section 1L(1)(2)(3) respectively.

According to the DEP Lead Management Regulations, an environmental lead hazard is defined as any paint or surface coating that contains lead in levels equal to or greater than 1.0 milligram per square centimeter and is in

poor condition (Note: inspectors may consider components that have chewable, friction, or impact surfaces as a lead hazard depending upon other relevant factors).

General Recommendations (if lead paint is identified)

The objective of this testing was to determine the presence of lead-based paint and assess the condition of the paint as it currently exists. State of Maine Department of Environmental Protection, State of Maine Department of Human Services, and Housing and Urban Development (HUD), all have requirements for addressing components containing lead-based paint. All of the above-referenced regulations (and indicated below) target lead-containing components assessed as hazards by a risk assessor as a first priority followed by impact on known leaded sources.

- ❑ *ME DEP Chapter 424, Lead Management Regulations*
- ❑ *ME DHS 10-144 Chapter 292, Rules for Environmental Lead Investigations (Lead Poisoned Children)*
- ❑ *HUD 24 CFR Part 35, "Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance".*
- ❑ *EPA's Renovation, Repair, & Painting Rule*
- ❑ *Title 10 Disclosure Requirements*

Informational. All scraping, sanding, cutting, welding, grinding, or demolition of any painted surface should not be performed under dry conditions in which airborne dust can be generated. Similarly, renovation/demolition activities that may impact lead-containing components are a concern with respect to the generation of airborne lead dust; therefore, safety measures such as the use of engineering controls are essential in order to protect human health and the environment. Contractors performing renovation/demolition activities in which excessive amounts of lead dust may be generated shall be trained in the hazards of lead-containing materials and the subsequent removal, cleaning, packaging, and handling of these materials as well as wearing approved respirators, disposable clothing, and other requirements of the standard. All work operations shall be performed in accordance with the following:

- ❑ *OSHA 29 CFR Part 1926.62, Lead Standard.*
- ❑ *EPA's RRP (Renovation, Repair, & Painting) Rule [40 CFR 745.80 Subpart E]*

The lead dust generated from any renovation work must be contained so that exposure is minimal, for both the workers and any occupants. All work must be done utilizing lead safe work practices and after completion of any renovation work, the dust **MUST** be immediately cleaned in accordance with the applicable regulation.

Monitoring lead-containing components that remain for condition changes is important; any changes should be addressed immediately. Any work, whether it is on the interior or exterior of the structure should be performed in a safe manner so as to minimize the amount of dust that is generated. Always utilize wet methods to clean paint chip dust/debris.

Website Information.

- **EPA's Renovation, Repair and Painting rule** can be found at the following website:
<http://www.epa.gov/lead/pubs/renovation.html>.

If you should have any questions at all concerning the information contained herein, or in general, please do not hesitate to contact me at (207) 459-6528 or via email at deb.atlanticenvironmental@gmail.com.

Sincerely,
Deborah A. Kasik
Deborah A. Kasik
Lead Risk Assessor LR #0003

Enclosures

LEAD-BASED PAINT LIST

AES JOB#: 13-145 DATE: 4/8/2013

LOCATION: Keeper's House INSPECTOR INITIALS: DK
Swan's Island, Maine

LOCATION	LEAD-CONTAINING MATERIAL	SPECIFIC INFORMATION
Rm. #1; Storage #1	Ceiling	
	B,C' Walls	
	A,B,C' Baseboards	
	B#1' Door	
	B#1' Door Casing	
	B#1' Door Jamb	
	B#1' Door Threshold	
	A#1' Window Outer Stops	
	A#1' Window Sash	
	A#1' Window Well	
	Stored Building Components	
	Paint Chip Debris/Dust on floor	
Rm. #2; Storage #2	Floors	wood & concrete
	C' Wall	
	A,B,C,D' Baseboards	
	C#1' Door Casing	
	C#1' Door Jamb	
	B' Window Unit	
	Shelf & Supports	near door to Pantry
Rm. #3; Pantry	B' Window Unit	restored
Rm. #4; Kitchen	A#1' Door	
	A#1' Door Jamb	
	A#1' Door Threshold	
	B#1' Door Jamb	
	B#1' Door Threshold	
	C#1' Door Jamb	
	B#1, D#1' Window Units	restored
	A' Closet Floor	
	A' Closet Baseboards	
	A' Closet Door Casing	interior side
	A' Closet Shelf Support	
	A' Closet Wall Trim	with coat hooks
NOTE: PROPER MAINTENANCE/MONITORING OF LEAD-CONTAINING MATERIALS CURRENTLY IDENTIFIED IN GOOD - FAIR CONDITION WILL ENSURE THAT THEY REMAIN IN GOOD-FAIR CONDITION.		
Interior - Continued		D. Kasik; Lead Risk Assessor

LEAD-BASED PAINT LIST

AES JOB#: 13-145 DATE: 4/8/2013

LOCATION: Keeper's House INSPECTOR INITIALS: DK
Swan's Island, Maine

LOCATION	LEAD-CONTAINING MATERIAL	SPECIFIC INFORMATION
Rm. #4; Kitchen continued	B' Closet Walls	
	B' Closet Floor	
	B' Closet Baseboards	
	B' Closet Door Casing	interior side
	B' Closet Wall Trim	
	Paint Chip Debris/Dust on floor	
Rm. #5; Parlor	A,C,D' Baseboards	
	A#1' Door Jamb	
	A#2' Door Jamb	
	A#3' Door Jamb	
	B#1,2, C#1' Window Units	restored
Rm. #6; Former Vestibule	C,D' Baseboards	
	C#1' Door Casing	
	C#1' Door Jamb	
	B' Window Unit	restored
	Paint Chip Debris/Dust on floor	
Rm. #7; Dining Room	B#1' Door Jamb	
	C#1,D#1,2' Window Units	restored
Rm. #8; Front Storage #1	Floor	
	A,B,C,D' Walls	
	C#1' Door	
	C#1' Door Casing	
	C#1' Door Jamb	
	C#1' Door Threshold	
	A#1' Window Unit	restored
Rm. #9; Storage #2	A#2' Door	
	A#2' Door Casing	
	A#2' Door Jamb	
	A#2' Door Threshold	
	C#1' Door	
	C#1' Door Casing	
NOTE: PROPER MAINTENANCE/MONITORING OF LEAD-CONTAINING MATERIALS CURRENTLY IDENTIFIED IN GOOD - FAIR CONDITION WILL ENSURE THAT THEY REMAIN IN GOOD-FAIR CONDITION.		
Interior - Continued		D. Kasik; Lead Risk Assessor

LEAD-BASED PAINT LIST

AES JOB#: 13-145 DATE: 4/8/2013

LOCATION: Keeper's House INSPECTOR INITIALS: DK
Swan's Island, Maine

LOCATION	LEAD-CONTAINING MATERIAL	SPECIFIC INFORMATION
Rm. #9; Storage #2	C#1' Door Jamb	
	C#1' Door Threshold	
	Skylight Casings	
Rm. #10; Hallway/Stairs to 1st	Ceiling	
	A,B,C,D' Walls	
	A,B,C,D' Baseboards	
	A#1' Door	
	A#1' Door Casings	
	A#1' Door Jamb	
	A#1' Door Threshold	
	C#1' Door Casing	
	C#1' Door Jamb	
	C#1' Door Threshold	
	C#2' Door Casing	
	C#2' Door Jamb	
	C#2' Door Threshold	
	D#1' Door Casing	
	D#1' Door Jamb	
	D#1' Door Threshold	
	A#1' Window Sill	
	A#1' Window Casings & Aprons	
	A#1' Window Inner Stops	
	A#1' Window Sash	fixed; in stairway
	A#1' Window Exterior Component	assumed; inaccessible
	Stairway Ceiling	
	Stairway Walls	
	A,B,C,D' Stair Mopboards	
	A,B,C,D' Stair Treads	
	A,B,C,D' Stair Risers	
	A,B' Floor beneath Balusters	in hallway
	Stair Newell Post	in hallway
	Shelf above door to 1st Floor	
	Door Casing & Jamb to 1st Floor	
NOTE: PROPER MAINTENANCE/MONITORING OF LEAD-CONTAINING MATERIALS CURRENTLY IDENTIFIED IN GOOD - FAIR CONDITION WILL ENSURE THAT THEY REMAIN IN GOOD-FAIR CONDITION.		
Interior - Continued		D. Kasik; Lead Risk Assessor

LEAD-BASED PAINT LIST

AES JOB#: 13-145 DATE: 4/8/2013

LOCATION: Keeper's House INSPECTOR INITIALS: DK
Swan's Island, Maine

LOCATION	LEAD-CONTAINING MATERIAL	SPECIFIC INFORMATION
Rm. #11; Bedroom #1	Floor beneath tile & plywood	
	A,B,C,D' Baseboards	
	A#1' Door Casing	
	A#1' Door Jamb	
	A#1' Door Threshold	
	A#2' Door Casing	
	A#2' Door Jamb	
	A#2' Door Threshold	
	D#1' Door Casing	
	D#1' Door Jamb	
	D#1' Door Threshold	
	D' Trim around Chimney	
	A' Closet Floor	
	A' Closet Baseboards	
	A' Closet Door Casing	interior side
	A' Closet - Attic Trim	
	D' Closet Floor	
	D' Closet Baseboards	
	D' Closet Door Casing	interior side
	D' Closet Wall Trim	
	B#1,2' Window Units	restored
Rm. #12; Bedroom #2	Floor beneath tile & plywood	
	A,B,C,D' Baseboards	
	A#1' Door Casing	
	A#1' Door Jamb	
	A#1' Door Threshold	
	B#1' Door	
	B#1' Door Casing	
	B#1' Door Jamb	
	B#1' Door Threshold	
	D#1,2' Window Units	restored
	Trim around Chimney	
	B' Closet Floor	
	B' Closet Baseboards	
	B' Closet Door Casing	interior side
NOTE: PROPER MAINTENANCE/MONITORING OF LEAD-CONTAINING MATERIALS CURRENTLY IDENTIFIED IN GOOD - FAIR CONDITION WILL ENSURE THAT THEY REMAIN IN GOOD-FAIR CONDITION.		
Interior - Continued		D. Kasik; Lead Risk Assessor

LEAD-BASED PAINT LIST

DATE: 4/8/2013

INSPECTOR INITIALS: DK

LOCATION	LEAD-CONTAINING MATERIAL	SPECIFIC INFORMATION
Rm. #12; Bedroom #2 continued	B' Closet Shelf Support	
Rm. #13; Bathroom	Floor beneath tile & plywood	
	B#1' Door	
	B#1' Door Casing	
	B#1' Door Jamb	
	B#1' Door Threshold	
	B#2' Door Casing	
	B#2' Door Jamb	
	B#2' Door Threshold	
	D#1' Window Outer stops	
	D#1' Window Sash	
	D#1' Window Well	
	B' Closet Floor	
	B' Closet Baseboards	
	B' Closet Door Casing	interior side
	B' Closet Shelf Support	
Basement Area	Wood Walls	
	Trim around all openings	
NOTE: PROPER MAINTENANCE/MONITORING OF LEAD-CONTAINING MATERIALS CURRENTLY IDENTIFIED IN GOOD - FAIR CONDITION WILL ENSURE THAT THEY REMAIN IN GOOD-FAIR CONDITION.		
Interior - End		D. Kasik; Lead Risk Assessor

LEAD-BASED PAINT LIST

DATE: 4/8/2013

INSPECTOR INITIALS: DK[illegible]

LEAD-BASED PAINT INSPECTION

EXPLANATION OF RESULTS

1. RESULTS:

The determination as to whether or not a component contains lead-based paint is based on the State of Maine, Department of Environmental Protections' Lead Management Regulations (Chapter 424). The DEP defines a component as lead-containing if the *XRF result is equal to or greater than 1.0 milligram per square centimeter*.

The limits for any additional sampling, i.e. soil, dust, and/or water, will be included on the report sheet.

2. CONDITION OF PAINT:

The condition of the paint is a vital part of the lead inspection. The Department of Environmental Protection outlines definitions for three classifications of paint condition: good; fair; and poor. Definitions for each are as follows:

GOOD: paint is entirely intact;

FAIR: paint is intact, but worn; minor chips are evident as a result of normal wear and tear; no adhesion or substrate problems are present;

POOR: paint is severely worn, weathered, or no longer adhering, i.e. peeling, cracking, flaking, chalking; or the substrate is broken, exposed, or otherwise deteriorated.

More detailed definitions for each condition of paint can be found in the DEP Lead Management Regulations, Section 1L(1)(2)(3) respectively. For the purposes of this report, components with paint found to be in poor condition are considered to be an environmental hazard and should be addressed as a priority. These components have been highlighted in YELLOW on the field inspection sheets. Components found to be in good or fair condition are highlighted in BLUE.

3. DEFINITION OF TERMS

Lead Hazard: "Lead Hazard" means any condition that may cause exposure to lead from lead contaminated dust, lead-contaminated soil, lead-contaminated water or lead-based paint that is in poor condition. Lead hazards include, but are not limited to: drinking water containing greater than 15 ppb lead; bare soil in play areas containing greater than 375 ppm lead; bare soil in building perimeter areas other than play areas containing greater than 1000 ppm lead; lead-based paint in poor condition; and lead-contaminated dust exceeding clearance standards in Section 6F(3). Lead inspectors and risk assessors may identify lead-based paint in fair condition on chewable, friction, and impact surfaces as a lead hazard provided there are children's teeth marks on the chewable surface, or the friction or impact surface evidences abrasion or impact and the lead dust level on the nearest horizontal surface is equal to or greater than the dust lead hazard identified in Section 7B(1)(b)(iii).

Testing Methods: Testing methods used to determine Environmental Lead Hazards are XRF paint analysis and/or sampling for laboratory analysis.

XRF-LPA: X-ray Fluorescence Lead Paint Analyzer is a non-intrusive instrument that measures the concentration of lead in surface coatings on building components the results of which are expressed in milligrams per square centimeter.

Room Equivalent: means an identifiable part of a residence, such as a room, foyer, staircase, hallway or an exterior. Each room equivalent has been assigned both a room number and a name that is consistently used on the diagrams, field inspection forms, report summary and for final abatement clearance testing.

Side: identifies the location of a building component by side. 'A' side is in the same plane or closest to the street address; 'B,C&D' sides are identified clockwise from the street address. The 'side' designation is consistently utilized throughout the report, on diagrams, on field inspection sheets and in the report summary.

Source: Building component sampled for lead content, such as door and window units, that are sequentially numbered from left to right.

Surface: Identifies the substrate beneath the surface coating (or, in some cases, the surface coating itself).

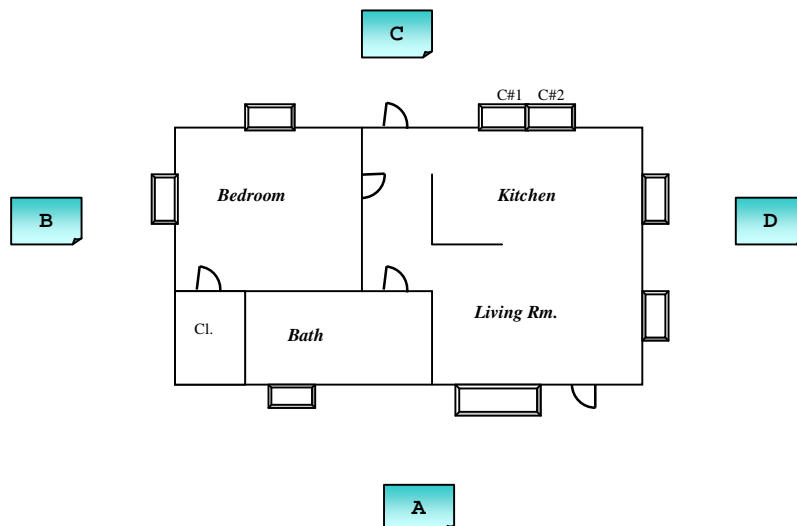
Abatement: means any measure or set of measures designed to permanently eliminate lead hazards (i.e. window sash removal).

Interim Control: means a set of non-abatement measures designed to temporarily reduce human exposure or likely exposure to lead hazards (i.e. removal of paint from the door stop only, not the entire jamb).

Dust Clearance Standards: Clearance standards for residential dwellings and child-occupied facilities are as follows: Floors– 40 ug/ft²; Window Sills – 250 ug/ft²; and Window Wells (Trough) – 400 ug/ft² (DEP Lead Management Regulations Chapter 424, Section 6F(3)(c)).

4. DIAGRAM:

A diagram of the facility is also an integral part of the final report. It establishes room identifications from which the typewritten report can be compared. There are always four sides to each room/area, which is consistent amongst inspectors. 'A' side always faces the street address of the building (unless otherwise indicated). The purpose is to be able to correlate the report to the drawing.



LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #1; Storage #1

First Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CEILING	1	>9.9	P	1	>9.9	P	1	>9.9	P	1	>9.9	P	
CEILING TRIM	11			1	0.0		11			11			
FLOOR	7	Plywood											Sheet Flooring under Cistern
UPPER WALLS	11	Studs		1	3.1*	P	1	3.8**	P	11	Studs		*Adjacent to door; **near cistern
CHAIR RAIL	11												
LOWER WALLS	11												
BASEBOARD	1	>9.9	P	1	>9.9	P	1	>9.9	P	11			
HEATER													
DOOR #1				1	9.8	P							
DOOR CASING				1	>9.9	P							
DOOR JAMB				1	7.4	P							
DOOR THRESHOLD				1	7.5	P							
				X1 To Storage #2									
DOOR #2													
DOOR CASING													
DOOR JAMB													
DOOR THRESHOLD													
WNDW #1 - INT. SILL	1	0.0											
WNDW #1 - APRON	11												
WNDW #1 - CASINGS	11												
WNDW #1 - INNER STOPS	7&1	0.0											
WNDW #1 - OUTER STOPS	10	AP	P										
WNDW #1 - INT. SASH	1	8.2	P										
WNDW #1 - WELL	10	AP	P										
WNDW #1 - EXT. SASH	10	AP	P										
		X1											
WNDW #2 - INT. SILL													NOTE: STORED BUILDING COMPONENTS IN THIS AREA. PAINT CHIP DEBRIS /DUST PRESENT THROUGHOUT ROOM.
WNDW #2 - APRON													
WNDW #2 - CASINGS													
WNDW #2 - INNER STOPS													
WNDW #2 - OUTER STOPS													
WNDW #2 - INT. SASH													
WNDW #2 - WELL													
WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RM. #1; Storage #1

First Floor

RISK ASSESSOR: D. Kasik

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CLOSET CEILING													
CLOSET UPPER WALL													
CLOSET LOWER WALL													
CLOSET FLOOR													
CLOSET BASEBOARD													
CLOSET DOOR													
CLOSET DOOR CASING													
CLOSET DOOR JAMB													
CLOSET DOOR THRESHOLD													
CLOSET SHELVES													
CLOSET SHELF SUPPORT													
CLOSET WALL TRIM													
CLOSET-													
CABINET - UPPER DOOR													
CABINET - DOOR CASING													
CABINET - LOWER DOOR													
CABINET - UP SHELVES													
CABINET - LOW SHELVES													
CABINET - UP INT.WALL													
CABINET - LOW INT. WALL													
CABINET - TRIM													
CABINET - DRAWERS													
MISCELLANEOUS:													
CISTERN TANK							12	0.0					

SFCE (SURFACE) KEY:		CNDTN (CONDITION):	RELEVANT INFORMATION:
1 = PAINT	7 = UNFINISHED	G = GOOD F = FAIR P = POOR	STATE OF MAINE LEAD LIMIT = 1.0 mg/cm ² ALL RESULTS EXPRESSED AS mg/cm ² , UNLESS OTHERWISE INDICATED
2 = STAIN	8 = MASONRY		
3 = WALLPAPER	9 = CEILING TILES		
4 = PLASTER	10 = INACCESSIBLE		
5 = VINYL	11 = NOT APPLICABLE		
6 = CARPET	12 = OTHER		

Risk Assessor Initials:
DK

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

RM. #2; Storage #2

First Floor

DATE: 4/8/2013
AES JOB #: 13-145
RISK ASSESSOR: D. Kasik

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CEILING	1	0.0/0.0		1	0.0		1	0.0		1	0.0		
CEILING TRIM	11												
FLOOR	1	4.4/8.5**	P	1	4.4/8.5**	P	1	9.2*	P	1	4.4/8.5**	P	*wood; **concrete
UPPER WALLS	1	0.5/0.2		1	0.6/0.5		1	1.5	P	1	0.6		
CHAIR RAIL													
LOWER WALLS													
BASEBOARD	1	>9.9	P	1	>9.9	P	1	>9.9	P	1	>9.9	P	includes base shoe molding
HEATER													
DOOR #1							2	0.0			see		
DOOR CASING							1	>9.9	P		Storage #1		
DOOR JAMB							1	>9.9	P				
DOOR THRESHOLD							1	0.0/0.0					
							X1 To Pantry						
DOOR #2													
DOOR CASING													
DOOR JAMB													
DOOR THRESHOLD													
WNDW #1 - INT. SILL				1									
WNDW #1 - APRON				11									
WNDW #1 - CASINGS				11									
WNDW #1 - INNER STOPS				1									
WNDW #1 - OUTER STOPS				10									
WNDW #1 - INT. SASH				1	0.0/0.0								
WNDW #1 - WELL				10									
WNDW #1 - EXT. SASH				10									
					X1								
WNDW #2 - INT. SILL													
WNDW #2 - APRON													
WNDW #2 - CASINGS													
WNDW #2 - INNER STOPS													
WNDW #2 - OUTER STOPS													
WNDW #2 - INT. SASH													
WNDW #2 - WELL													
WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #2; Storage #2

First Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	

CLOSET CEILING													
CLOSET UPPER WALL													
CLOSET LOWER WALL													
CLOSET FLOOR													
CLOSET BASEBOARD													
CLOSET DOOR													
CLOSET DOOR CASING													
CLOSET DOOR JAMB													
CLOSET DOOR THRESHOLD													
CLOSET SHELVES													
CLOSET SHELF SUPPORT													
CLOSET WALL TRIM													
CLOSET-													
CABINET - UPPER DOOR													
CABINET - DOOR CASING													
CABINET - LOWER DOOR													
CABINET - UP SHELVES													
CABINET - LOW SHELVES													
CABINET - UP INT.WALL													
CABINET - LOW INT. WALL													
CABINET - TRIM													
CABINET - DRAWERS													
MISCELLANEOUS:													
CONCRETE CISTERN	8	0.4/0.2											
SHELF NEAR DOOR							1	>9.9	P				includes supports

SFCE (SURFACE) KEY:		CNDTN (CONDITION):	RELEVANT INFORMATION:
1 = PAINT	7 = UNFINISHED	G = GOOD F = FAIR P = POOR	STATE OF MAINE LEAD LIMIT = 1.0 mg/cm2 ALL RESULTS EXPRESSED AS mg/cm2, UNLESS OTHERWISE INDICATED
2 = STAIN	8 = MASONRY		
3 = WALLPAPER	9 = CEILING TILES		
4 = PLASTER	10 = INACCESSIBLE		
5 = VINYL	11 = NOT APPLICABLE		
6 = CARPET	12 = OTHER		

Risk Assessor Initials:
DK

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

RM. #3; Pantry

First Floor

DATE: 4/8/2013
AES JOB #: 13-145
RISK ASSESSOR: D. Kasik

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CEILING	1	0.0		1	0.0		1	0.0		1	0.0		

[illegible]

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #3; Pantry

First Floor

[illegible]

BASEBOARD	1	0.0		1	0.0		1	0.0		1	0.0		
HEATER													
DOOR #1	1	2.9	G-F	11			11			1	0.0		
DOOR CASING	1	0.0		1	0.0		1	0.0		1	0.0		
DOOR JAMB	1	>9.9	G-F	1	>9.9	G-F	1	2.9	G	1	0.0		
DOOR THRESHOLD	2&1	2.5**	F	1&2	2.0**	F	2	0.0		12	Metal		**visible portion of threshold stripped
	X1 To Closet			X1 To Closet			X1 To Parlor			X1 To Exterior			
DOOR #2	11						11						
DOOR CASING	1	0.0					11						
DOOR JAMB	1	0.0					11						
DOOR THRESHOLD	11						2	0.0					
	X1 To Pantry			X1 To Dining Room									
WNDW #1 - INT. SILL				1	0.0					1	0.0		
WNDW #1 - APRON				1	0.0					1	0.0		
WNDW #1 - CASINGS				1	0.0					1	0.0		
WNDW #1 - INNER STOPS				1	0.0					1	0.0		
WNDW #1 - OUTER STOPS				1	6.6	G-F				1			
WNDW #1 - INT. SASH				1	0.0/0.0					1	2.9/0.0	G	
WNDW #1 - WELL				1						10			
WNDW #1 - EXT. SASH				1	0.0					10			
					X1						X1		
WNDW #2 - INT. SILL													
WNDW #2 - APRON													
WNDW #2 - CASINGS													
WNDW #2 - INNER STOPS													
WNDW #2 - OUTER STOPS													
WNDW #2 - INT. SASH													
WNDW #2 - WELL													
WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #4; Kitchen

First Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CLOSET CEILING	1	0.0		1	0.0								
CLOSET UPPER WALL	1	0.4		1	3.4/4.1	G							
CLOSET LOWER WALL	1	0.0		11									
CLOSET FLOOR	1	4.4	P	1	3.3	P							
CLOSET BASEBOARD	1	>9.9	P	1	>9.9	P							
CLOSET DOOR	1	5.8	F	11									
CLOSET DOOR CASING	1	>9.9	P	1	>9.9	P							
CLOSET DOOR JAMB	1	9.6	G	1	>9.9	G							

[illegible]

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #5; Parlor

First Floor

[illegible]

CLOSET-													
CABINET - UPPER DOOR													
CABINET - DOOR CASING													
CABINET - LOWER DOOR													
CABINET - UP SHELVES													
CABINET - LOW SHELVES													
CABINET - UP INT.WALL													
CABINET - LOW INT. WALL													
CABINET - TRIM													
CABINET - DRAWERS													
MISCELLANEOUS:													

SFCE (SURFACE) KEY:	CNDTN (CONDITION):	RELEVANT INFORMATION:
1 = PAINT	7 = UNFINISHED	STATE OF MAINE LEAD LIMIT = 1.0 mg/cm2 ALL RESULTS EXPRESSED AS mg/cm2, UNLESS OTHERWISE INDICATED
2 = STAIN	8 = MASONRY	
3 = WALLPAPER	9 = CEILING TILES	
4 = PLASTER	10 = INACCESSIBLE	
5 = VINYL	11 = NOT APPLICABLE	
6 = CARPET	12 = OTHER	
	G = GOOD	
	F = FAIR	
	P = POOR	

Risk Assessor Initials:
DK

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #6; Former Vestibule

First Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CEILING	1	0.2		1	0.2		1	0.2		1	0.2		
CEILING TRIM	11												
FLOOR	2	0.0		2	0.0		2	0.0		2	0.0		Dust/Debris on floor
UPPER WALLS	1	0.4		1	0.4		1	0.4		1	0.4		
CHAIR RAIL	11												
LOWER WALLS	11												
BASEBOARD	1	0.0		1	0.0		1	>9.9	G-F	1	>9.9	G-F	
HEATER													
DOOR #1							11						
DOOR CASING							1	0.0/1.9*	G				Left/*Right
DOOR JAMB							1	2.0	G				
DOOR THRESHOLD							2	0.0					
							X1 To Parlor						

[illegible]

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #6; Former Vestibule

First Floor

[illegible]

DATE: 4/8/2013
AES JOB #: 13-145
RISK ASSESSOR: D. Kasik

WNDW #2 - CASINGS													
WNDW #2 - INNER STOPS													
WNDW #2 - OUTER STOPS													
WNDW #2 - INT. SASH													
WNDW #2 - WELL													
WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #10; Hallway/Stairs to 1st Floor

Second Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CLOSET CEILING													
CLOSET UPPER WALL													
CLOSET LOWER WALL													
CLOSET FLOOR													
CLOSET BASEBOARD													
CLOSET DOOR													
CLOSET DOOR CASING													
CLOSET DOOR JAMB													
CLOSET DOOR THRESHOLD													
CLOSET SHELVES													
CLOSET SHELF SUPPORT													
CLOSET WALL TRIM													
CLOSET-													
STAIRWAY TO 1ST:													SEE WINDOW ON FRONT OF THIS PG
CEILING	1	1.8	P										
WALLS	1	1.0	P	1	1.0	P		SEE HALL		1	1.0	P	
STAIR MOPBOARDS*	1	5.9	P	1	5.9	P	1	5.9	P	1	5.9	P	*/BASEBOARDS
STAIR TREADS	1	3.4	P	1	3.4	P	1	3.4	P	1	3.4	P	
STAIR RISERS	1	5.1	P	1	5.1	P	1	5.1	P	1	5.1	P	
STAIR FASCIA													
STAIR HANDRAIL	2	0.0											
HALL RAILING	1	0.0		1	0.0								
HALL BALUSTERS	1	0.0		1	0.0								
HALL FLOOR BENEATH													
BALUSTERS	1	2.7	F-P	1	2.7	F-P							
HALL NEWELL POST							1	1.0	P				
SHELF ABOVE DOOR							1	2.3	F-P				TO 1ST FLOOR
CASING & JAMB							1	>9.9	P				TO 1ST FLOOR

SFCE (SURFACE) KEY:

1 = PAINT

7 = UNFINISHED

CNDTN (CONDITION):

RELEVANT INFORMATION:

STATE OF MAINE LEAD LIMIT = 1.0 mg/cm²
ALL RESULTS EXPRESSED AS mg/cm², UNLESS
OTHERWISE INDICATED

[illegible]

WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RM. #11; Bedroom #1

Second Floor

RISK ASSESSOR: D. Kasik

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CLOSET CEILING	1	0.0*								1	0.0		*located above two sets of ceiling tiles
CLOSET UPPER WALL	1	0.0								1	0.0		
CLOSET LOWER WALL	11									11			
CLOSET FLOOR	1	>9.9	P							1	8.8	P	
CLOSET BASEBOARD	1	>9.9	P							1	>9.9	P	
CLOSET DOOR	11									11			
CLOSET DOOR CASING	1	>9.9	P							1	>9.9	P	
CLOSET DOOR JAMB	1	>9.9	P							1	>9.9	P	
CLOSET DOOR THRESHOLD	1	6.9	P							1	5.8	P	
CLOSET SHELVES	11									11			
CLOSET SHELF SUPPORT	11									11			
CLOSET WALL TRIM	1	0.0								1	>9.9	P	
CLOSET- WIND TRIM/SASH	1	0.0								11			
CABINET - UPPER DOOR													
CABINET - DOOR CASING													
CABINET - LOWER DOOR													
CABINET - UP SHELVES													
CABINET - LOW SHELVES													
CABINET - UP INT.WALL													
CABINET - LOW INT. WALL													
CABINET - TRIM													
CABINET - DRAWERS													
MISCELLANEOUS:													
TRIM AROUND CHIMNEY										1	1.7	P	
CHIMNEY BRICK										8	0.0		
ATTIC TRIM IN CLOSET	1	5.2	P										

SFCE (SURFACE) KEY:

1 = PAINT 7 = UNFINISHED
2 = STAIN 8 = MASONRY
3 = WALLPAPER 9 = CEILING TILES
4 = PLASTER 10 = INACCESSIBLE
5 = VINYL 11 = NOT APPLICABLE

CNDTN (CONDITION):

G = GOOD
F = FAIR
P = POOR

RELEVANT INFORMATION:

STATE OF MAINE LEAD LIMIT = 1.0 mg/cm²
ALL RESULTS EXPRESSED AS mg/cm², UNLESS
OTHERWISE INDICATED

Risk Assessor Initials:

DK

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #12; Bedroom #2

Second Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CEILING	1	0.0		1	0.0		1	0.0		1	0.0		
CEILING TRIM	1	0.0		1	0.0		1	0.0		1	0.0		
FLOOR	12	Floor Tile		12	Floor Tile		12	Floor Tile		12	Floor Tile		9" tile on plywood over painted floor
UPPER WALLS	1	0.0		1	0.0		1	0.0		1	0.0		
CHAIR RAIL	11												
LOWER WALLS	11												
BASEBOARD	1	>9.9	P	1	>9.9	P	1	>9.9	P	1	>9.9	P	includes base shoe molding
HEATER													
DOOR #1	2	0.0		1	>9.9	P							
DOOR CASING	1	>9.9	P	1	8.6	P							
DOOR JAMB	1	>9.9	P	1	>9.9	P							
DOOR THRESHOLD	1	5.0	P	1	2.0	P							
	X1 To Hallway			X1 To Closet									
DOOR #2													
DOOR CASING													
DOOR JAMB													
DOOR THRESHOLD													
WNDW #1 - INT. SILL										1	0.0		
WNDW #1 - APRON										11			
WNDW #1 - CASINGS										11			
WNDW #1 - INNER STOPS										7	0.0		
WNDW #1 - OUTER STOPS										1	4.6	F	
WNDW #1 - INT. SASH										1	6.7	F	
WNDW #1 - WELL										1	1.4	F	
WNDW #1 - EXT. SASH										1	1.5	F	
											X2		
WNDW #2 - INT. SILL													
WNDW #2 - APRON													
WNDW #2 - CASINGS													
WNDW #2 - INNER STOPS													
WNDW #2 - OUTER STOPS													
WNDW #2 - INT. SASH													
WNDW #2 - WELL													
WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

DATE: 4/8/2013

RM. #12; Bedroom #2

Second Floor

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CLOSET CEILING				1	0.0								
CLOSET UPPER WALL				1	0.1								
CLOSET LOWER WALL				11									
CLOSET FLOOR				1	0.0								
CLOSET BASEBOARD				1	>9.9	P							
CLOSET DOOR				1	>9.9	P							
CLOSET DOOR CASING				1	>9.9	P							
CLOSET DOOR JAMB				1	>9.9	P							
CLOSET DOOR THRESHOLD				1	1.8	P							
CLOSET SHELVES				11									
CLOSET SHELF SUPPORT				11	2.9	P							
CLOSET WALL TRIM				11									
CLOSET-				11									
CABINET - UPPER DOOR													
CABINET - DOOR CASING													
CABINET - LOWER DOOR													
CABINET - UP SHELVES													
CABINET - LOW SHELVES													
CABINET - UP INT.WALL													
CABINET - LOW INT. WALL													
CABINET - TRIM													
CABINET - DRAWERS													
MISCELLANEOUS:													
TRIM AROUND CHIMNEY				1	1.4	P							
CHIMNEY BRICK				8	0.0								SWEATING

SFCE (SURFACE) KEY:

1 = PAINT 7 = UNFINISHED
 2 = STAIN 8 = MASONRY
 3 = WALLPAPER 9 = CEILING TILES
 4 = PLASTER 10 = INACCESSIBLE
 5 = VINYL 11 = NOT APPLICABLE
 6 = CARPET 12 = OTHER

CNDTN (CONDITION):

G = GOOD
 F = FAIR
 P = POOR

RELEVANT INFORMATION:

STATE OF MAINE LEAD LIMIT = 1.0 mg/cm²
 ALL RESULTS EXPRESSED AS mg/cm², UNLESS
 OTHERWISE INDICATED

Risk Assessor Initials:
DK

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE:

4/8/2013

AES JOB #:

13-145

RM. #13; Bathroom

Second Floor

RISK ASSESSOR: D. Kasik

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
CEILING	1	0.0		1	0.0		1	0.0		1	0.0		
CEILING TRIM	11												
FLOOR	12	Floor Tile		12	Floor Tile		12	Floor Tile		12	Floor Tile		9" tile on plywood over painted floor 4.7
UPPER WALLS	1	0.0		1	0.0		1	0.0		1	0.0		
CHAIR RAIL	11												
LOWER WALLS	12	0.0		12	0.0		12	0.0		12	0.0		
BASEBOARD													
HEATER													
DOOR #1				1	>9.9	P							
DOOR CASING				1	>9.9	P							
DOOR JAMB				1	>9.9	P							
DOOR THRESHOLD				1	>9.9	P							
				X1 To Closet									
DOOR #2													
DOOR CASING				1	>9.9	P							
DOOR JAMB				1	>9.9	P							
DOOR THRESHOLD				1	>9.9	P							
				X1 To Hallway									
WNDW #1 - INT. SILL										1	0.0		
WNDW #1 - APRON										11			
WNDW #1 - CASINGS										11			
WNDW #1 - INNER STOPS										7	0.0		
WNDW #1 - OUTER STOPS										1	4.6	F	
WNDW #1 - INT. SASH										1	6.7	P	
WNDW #1 - WELL										1	1.4	F	
WNDW #1 - EXT. SASH										1	1.5	F	
WNDW #2 - INT. SILL													
WNDW #2 - APRON													
WNDW #2 - CASINGS													
WNDW #2 - INNER STOPS													
WNDW #2 - OUTER STOPS													
WNDW #2 - INT. SASH													
WNDW #2 - WELL													
WNDW #2 - EXT. SASH													

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

RM. #13; Bathroom

Second Floor

	SIDE A	SIDE B	SIDE C	SIDE D	
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COMPONENT:	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	INSPECTOR FIELD NOTES:
CLOSET CEILING				1	0.0								
CLOSET UPPER WALL				1	0.0								
CLOSET LOWER WALL				11									
CLOSET FLOOR				1	>9.9	P							
CLOSET BASEBOARD				1	8.7	P							
CLOSET DOOR				1	>9.9	P							
CLOSET DOOR CASING				11									
CLOSET DOOR JAMB				1	>9.9	P							
CLOSET DOOR THRESHOLD				1	>9.9	P							
CLOSET SHELVES				1	0.0/0.0/0.0								
CLOSET SHELF SUPPORT				1	8.1	P							
CLOSET WALL TRIM													
CLOSET-													
CABINET - UPPER DOOR													
CABINET - DOOR CASING													
CABINET - LOWER DOOR													
CABINET - UP SHELVES													
CABINET - LOW SHELVES													
CABINET - UP INT.WALL													
CABINET - LOW INT. WALL													
CABINET - TRIM													
CABINET - DRAWERS													
MISCELLANEOUS:													

SFCE (SURFACE) KEY:	CNDTN (CONDITION):	RELEVANT INFORMATION:
1 = PAINT 7 = UNFINISHED 2 = STAIN 8 = MASONRY 3 = WALLPAPER 9 = CEILING TILES 4 = PLASTER 10 = INACCESSIBLE 5 = VINYL 11 = NOT APPLICABLE 6 = CARPET 12 = OTHER	G = GOOD F = FAIR P = POOR	STATE OF MAINE LEAD LIMIT = 1.0 mg/cm ² ALL RESULTS EXPRESSED AS mg/cm ² , UNLESS OTHERWISE INDICATED

Risk Assessor Initials:
DK

LEAD-BASED PAINT INSPECTION RESULTS

Keeper's House, Swan's Island, Maine

DATE: 4/8/2013

AES JOB #: 13-145

RISK ASSESSOR: D. Kasik

EXTERIOR

COMPONENT:	SIDE A			SIDE B			SIDE C			SIDE D			INSPECTOR FIELD NOTES:
	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	SFCE	XRF	CNDTN	
SIDING	1	0.0		1	0.0		1	0.0		1	0.0		New siding
CORNERBOARDS	1	0.0		1	0.0		1	0.0		1	0.0		
FOUNDATION	8	Bare											
UPPER TRIM													
FASCIA	1	2.7	G	1	2.7	G	1	2.7	G	1	2.7	G	Original trim was left on building
SOFFIT	1	2.7	G	1	2.7	G	1	2.7	G	1	2.7	G	
FRIEZE BOARD	1	2.7	G	1	2.7	G	1	2.7	G	1	2.7	G	
DRIPEDGE													
SKIRT													
DOOR #1				12	0.0					12	0.0		
DOOR CASING				1	0.0					1	0.0		
DOOR JAMB				1	0.0					1	0.0		
DOOR THRESHOLD				12	Metal					12	Metal		
DOOR KICKBOARD													
				X1 To Piazza						X1 To Parking Lot			
WINDOW - SILL	1	0.0		1	0.0		1	0.0		1	0.0		
WINDOW - CASING	1	0.0		1	0.0		1	0.0		1	0.0		
WINDOW - SASH		see int.			see int.			see int.			see int.		
WINDOW - STORM	12	Metal		12	Metal		12	Metal		12	Metal		
WINDOW - SHUTTERS	11			11			11			11			
		Xall*			Xall*			Xall*			Xall*		*except for fixed sash window
PIAZZA:													
DECK				1	0.0/0.0								
SIDING	1	0.0		11			1	0.0		1	0.0		
TOP CLAPBOARD&TRIM	1	1.2	G	11			1	1.2	G	1	1.2	G	Closest to ceiling
CEILING	1	0.0		1	0.0		1	0.0		1	0.0		
UPPER TRIM				1	>9.9	G							
CORNERS ON PORCH				1	>9.9	G							
SUPPORT POSTS				1	2.1	G-F							
BULKHEAD DOOR				1	0.0								
BULKHEAD TRIM				1	0.0								

Risk Assessor Initials:

DK

XRF CALIBRATION LOG

DATE: April 8, 2013

AES JOB #: 13-145

SWAN'S ISLAND - KEEPER'S HOUSE
SWAN'S ISLAND, MAINE

# RDGS	INITIAL CALIBRATION		4-HOUR RE-CALIBRATE		POST CALIBRATION		NOTES
1	0.0	1.0	N/A	N/A	0.0	1.0	
2	0.0	1.0	N/A	N/A	0.0	1.0	
3	0.0	1.0	N/A	N/A	0.0	1.0	

MANUFACTURER STANDARD: 1.0 milligrams per square centimeter (mg/cm²)

COMMENTS: There were no problems experienced with the XRF during the course
of the environmental lead-based paint inspection in the residence.

Start Time: 8:45 am

Mid Time: N/A

End Time: 11:00 am (residence)

XRF OPERATOR: Deborah A. Kasik **XRF #:** RMD 3305

- ◆ The Radiation Monitoring Device (RMD) is licensed by the State of Maine Department of Human Services, Health and Engineering Bureau, Radiation Program.
The license number for the XRF is 31223.

April 29, 2013

Dennis Kingman
Summit Environmental Consultants, Inc.
8 Harlow Street, Suite 4A
Bangor, Maine 04401

RE: Lead-Based Paint XRF Testing
Swan's Island Light Station - Lighthouse
AES Job #: 13-145

Dear Mr. Kingman:

Atlantic Environmental Services has completed the environmental lead-based paint testing at the Lighthouse located at the Swan's Island Light Station in Swan's Island, Maine.

Purpose

The purpose of this testing was to determine the presence of lead-based paint on components throughout the facility (both interior and exterior). The lead-based paint testing was performed utilizing a portable X-ray Fluorescence Analyzer (XRF) that non-destructively tests for the presence of lead on building components. Once lead-containing components were identified, a visual assessment as to the current condition of the paint was also performed.

Lead Testing Procedures

On April 8, 2013, I, Deborah A. Kasik, *ME DEP* certified Lead Risk Assessor, License #LR-0003, performed the Lead-Based Paint Testing.

The lead-based paint testing was performed in accordance with the established protocols outlined in the *State of Maine Department of Environmental Protection's* Lead Management Regulations, Chapter 424, Section 7, as they apply to this project. The testing provides information on the lead-based paint content and assessment of condition for the surfaces tested. All results have been included on the field forms for your review.

The lead-based paint testing was conducted utilizing a portable X-ray Fluorescence Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of lead-based paint. This equipment is licensed with the Department of Human Services Radiation Control Program and operated in accordance with all applicable regulations and conditions of licensure.

Explanation of Analysis Methods

The X-ray Fluorescence Lead Paint Analyzer is a complete lead paint analysis system that quickly, accurately, and non-destructively measures the concentration of lead-based paint on surfaces. X-ray Fluorescence is a common technique utilizing gamma rays to bombard the surface, causing the atoms in the paint to emit characteristic X-rays. These characteristic X-rays are detected and analyzed to provide the apparent lead concentration information.

The RMD LPA-1 has the ability to read concentrations of lead in paint up to 9.9 milligrams per square centimeter; if the content of lead in the paint is greater than 9.9, the reading for that component will be listed as >9.9 mg/cm². The minimum detection limit of this particular equipment is 0.3 milligrams per square centimeter.

Calibration of the equipment is required by regulation and, as indicated on the Field Sheets, the readings were within the limits established by the manufacturer.

Limitations

In certain circumstances, leaded components may be covered by other building components, such as sheetrock over old painted walls and ceilings. It should be understood that the lead testing process is non-destructive, unless authorization has been received by the Owner to access otherwise inaccessible components. Those areas where access was achievable, the surfaces were tested and the results included on the field forms. In cases where the components were inaccessible, the Owner may either assume that these inaccessible components contain lead-based paint or have them tested when renovation work may disturb them. The XRF readings obtained on the accessible surface are therefore for that surface only (i.e. XRF reading on paneling) and do not apply to the surface beneath it.

Observations/Results

Lead-based paint XRF testing was performed both on the interior and exterior of the Lighthouse. All accessible building components were tested for the presence of lead-based paint, including, but not limited to, ceiling (wood & metal), walls (brick & wood), doors & trim, window masonry, floors, and exterior components.

Lead-based paint was identified on both the interior and exterior of the lighthouse. A summary of the lead-based paint test results is as follows:

Interior:

- Ceilings (wood and metal)
- Stair Treads, Landings, and one Riser
- Masonry Walls around window units
- Door Casing, Jamb and Threshold
- Wood Floors (2 types)
- Walls located at base of stairs to Lantern (wood and concrete)
- Metal Frames around Window Units (Lantern)
- Wood Walls (Lantern)
- Hatch Door to Exterior (Lantern)

Exterior:

- Metal Walkway Area (topside, underside, perimeter and lantern base)
- Metal Railing & Balusters (includes all)
- Metal Frames around Windows and Doors

All of the components identified as lead-containing were found to be in fair-poor condition. It was also noted that substrate repairs are required prior to any remediation work being performed to ensure proper adhesion of paint or other coating to the surfaces. Pre-existing paint chip debris was noted on the interior; no visible paint chip debris was noted on the exterior.

Explanation of Results

In some cases, components found to contain lead-based paint will be assessed in terms of the condition of the paint. This assessment is based on the definitions outlined in the DEP regulations and utilized as an industry standard. There are three different classifications for paint condition - good, fair, and poor, which are 'generally' defined as follows:

- GOOD: paint which is entirely intact.

- FAIR: paint is intact, but worn; minor chips are evident as a result of normal wear and tear; no adhesion or substrate problems, e.g. no broken wallboard is present.
- POOR: paint is severely worn, weathered, or no longer adhering, i.e. peeling, cracking, flaking, chalking; or the substrate is broken, exposed, or otherwise deteriorated.

Recommendations

The objective of this testing was to determine the presence of lead-based paint. All scraping, sanding, cutting, welding, grinding, or demolition of any painted surface should not be performed under dry conditions in which airborne dust can be generated. Similarly, renovation/demolition activities that may impact lead-containing components are a concern with respect to the generation of airborne lead dust; therefore, safety measures such as the use of engineering controls are essential in order to protect human health and the environment. Contractors performing renovation/demolition activities in which excessive amounts of lead dust may be generated shall be trained in the hazards of lead-containing materials and the subsequent removal, cleaning, packaging, and handling of these materials as well as wearing NIOSH approved respirators, disposable clothing, and other requirements of the standard. All work operations shall be performed in accordance with the following:

- ❑ OSHA 29 CFR Part 1926.62, Lead Standard.

The lead dust generated from any renovation work must be contained so that exposure is minimal, for both the workers and any occupants. After any renovation work is completed the dust should immediately be cleaned in order to prevent migration to other areas of the structure or waterway.

If you should have any questions at all concerning the information contained herein, or in general, please do not hesitate to contact me at (207) 604-2581 or via email at deb.atlanticenvironmental@gmail.com.

Sincerely,

Deborah A. Kasik

Deborah A. Kasik
Lead Risk Assessor (LR#0003)

Enclosures

ENVIRONMENTAL LEAD-BASED XRF RESULTS

CLIENT:		Summit Environmental Consultants, Inc,				DATE:		4/8/2013	
SITE:		Swan's Island Light Station, Swan's Island, Maine				AES #:		13-145	
BLDG:		LIGHTHOUSE				Page:		1 of 2	
XRF #		RMD LPA-1 #3305; ME Rad Lic #31223		CALIBRATION: 1.0 / 1.0 mg/cm2		Inspector Signature:		Deborah A. Kasik/LR#0003	

FIELD ID #	SAMPLE LOCATION	SIDE	COMPONENT(S)	COLOR	SUBSTRATE TYPE:	RESULTS mg/cm ²	CONDITION	NOTES:
L-1	INTERIOR		WALLS - 1ST LEVEL	RESIDUAL	BRICK	<0.3/<0.3/<0.3		
L-2	INTERIOR		STAIR TREADS	GRAY	METAL	>9.9/>9.9	F-P	INCLUDES FACE & UNDERSIDES; X ALL
L-3	INTERIOR		CEILING - 1ST LEVEL	WHITE	WOOD	5.8	P	INCLUDES ACCESS; ALL WOOD CEILINGS-POSITIVE
L-4	INTERIOR		WALL AROUND WINDOWS	WHITE	CONCRETE	0.7/0.8/0.7	P	IMMEDIATELY ADJACENT (REFER TO PHOTO)
L-5	INTERIOR		STAIR LANDING - 2ND LEVEL	GRAY	METAL	>9.9	F-P	SAME AS TREADS; INCLUDES ALL
L-6	INTERIOR		WALLS - 2ND LEVEL	RESIDUAL	BRICK	<0.3/<0.3		
L-7	INTERIOR		CEILING - UPPER LEVELS	WHITE	WOOD	>9.9	P	INCLUDES ALL IN LIGHTHOUSE
L-8	INTERIOR		STAIR RISER	GRAY	METAL	>9.9	F-P	ONLY ONE PRESENT
L-9	INTERIOR		DOOR CASING, JAMB, THRESHOLD	GRAY	WOOD	>9.9/>9.9	P	
L-10	INTERIOR		FLOORS	MULTI	WOOD	>9.9/1.9	P	2 DISTINCT TYPES
L-11	INTERIOR		WALLS	RESIDUAL	BRICK	<0.3/<0.3/<0.3		
L-12	INTERIOR		WALLS AT BASE OF STAIRS TO LANTERN	WHITE	WOOD/CONCRETE	1.0/0.8/1.0	P	
L-13	INTERIOR		CEILING - LANTERN	WHITE	METAL	1.9/1.6	F-P	
L-14	INTERIOR		FRAMES AROUND WINDOWS - LANTERN	WHITE	METAL	1.0/1.4	P	
L-15	INTERIOR		WALLS - LANTERN	WHITE	WOOD	>9.9/>9.9	P	
L-16	INTERIOR		FLOOR - LANTERN	NO ID	METAL	>9.9	F-P	
L-17	INTERIOR		HATCH DOOR TO EXTERIOR	BLACK	WOOD	4.9	P	
								NOTE: PRE-EXISTING PAINT CHIP DEBRIS PRESENT ON THE INTERIOR AT THE TIME OF THE DETERMINATION. DK

D = Drywall; P = Plaster; W = Wood; M = Metal; C = Concrete; B = Brick; V = Vinyl. MG/CM² = Milligrams per square centimeter

ENVIRONMENTAL LEAD-BASED XRF RESULTS

[illegible]

April 29, 2013

Dennis Kingman
Summit Environmental Consultants, Inc.
8 Harlow Street, Suite 4A
Bangor, Maine 04401

RE: Lead-Based Paint XRF Testing
Swan's Island Light Station – Bell House
AES Job #: 13-145

Dear Mr. Kingman:

Atlantic Environmental Services has completed the environmental lead-based paint testing at the Bell House located at the Swan's Island Light Station in Swan's Island, Maine.

Purpose

The purpose of this testing was to determine the presence of lead-based paint on components throughout the facility (both interior and exterior). The lead-based paint testing was performed utilizing a portable X-ray Fluorescence Analyzer (XRF) that non-destructively tests for the presence of lead on building components. Once lead-containing components were identified, a visual assessment as to the current condition of the paint was also performed.

Lead Testing Procedures

On April 8, 2013, I, Deborah A. Kasik, *ME DEP* certified Lead Risk Assessor, License #LR-0003, performed the Lead-Based Paint Testing.

The lead-based paint testing was performed in accordance with the established protocols outlined in the *State of Maine Department of Environmental Protection's* Lead Management Regulations, Chapter 424, Section 7, as they apply to this project. The testing provides information on the lead-based paint content and assessment of condition for the surfaces tested. All results have been included on the field forms for your review.

The lead-based paint testing was conducted utilizing a portable X-ray Fluorescence Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of lead-based paint. This equipment is licensed with the Department of Human Services Radiation Control Program and operated in accordance with all applicable regulations and conditions of licensure.

Explanation of Analysis Methods

The X-ray Fluorescence Lead Paint Analyzer is a complete lead paint analysis system that quickly, accurately, and non-destructively measures the concentration of lead-based paint on surfaces. X-ray Fluorescence is a common technique utilizing gamma rays to bombard the surface, causing the atoms in the paint to emit characteristic X-rays. These characteristic X-rays are detected and analyzed to provide the apparent lead concentration information.

The RMD LPA-1 has the ability to read concentrations of lead in paint up to 9.9 milligrams per square centimeter; if the content of lead in the paint is greater than 9.9, the reading for that component will be listed as >9.9 mg/cm². The minimum detection limit of this particular equipment is 0.3 milligrams per square centimeter.

Calibration of the equipment is required by regulation and, as indicated on the Field Sheets, the readings were within the limits established by the manufacturer.

Limitations

In certain circumstances, leaded components may be covered by other building components, such as sheetrock over old painted walls and ceilings. It should be understood that the lead testing process is non-destructive, unless authorization has been received by the Owner to access otherwise inaccessible components. Those areas where access was achievable, the surfaces were tested and the results included on the field forms. In cases where the components were inaccessible, the Owner may either assume that these inaccessible components contain lead-based paint or have them tested when renovation work may disturb them. The XRF readings obtained on the accessible surface are therefore for that surface only (i.e. XRF reading on paneling) and do not apply to the surface beneath it.

Observations/Results

Lead-based paint XRF testing was performed both on the interior and exterior of the Bell House structure. All accessible building components were tested for the presence of lead-based paint, including, but not limited to, walls/floor (wood), door trim, support beam, window components, and exterior components.

Lead-based paint was identified on both the interior and exterior of the Bell House. A summary of the lead-based paint test results is as follows:

Interior:

- Walls/Floor (wood; residual paint on both around perimeter)
- Wall around Window Unit (wood; residual paint)
- Support Beam
- Door Casing and Jamb
- Stored Trim (no # indicated)

Exterior:

- Door Jamb

The components identified as lead-containing were found to be in good-poor condition. The renovation plan indicates that the structure will be re-built to its original size. Pre-existing paint chip debris was noted on the interior; no visible paint chip debris was noted on the exterior.

Explanation of Results

In some cases, components found to contain lead-based paint will be assessed in terms of the condition of the paint. This assessment is based on the definitions outlined in the DEP regulations and utilized as an industry standard. There are three different classifications for paint condition - good, fair, and poor, which are 'generally' defined as follows:

- GOOD: paint which is entirely intact.
- FAIR: paint is intact, but worn; minor chips are evident as a result of normal wear and tear; no adhesion or substrate problems, e.g. no broken wallboard is present.
- POOR: paint is severely worn, weathered, or no longer adhering, i.e. peeling, cracking, flaking, chalking; or the substrate is broken, exposed, or otherwise deteriorated.

Recommendations

The objective of this testing was to determine the presence of lead-based paint. All scraping, sanding, cutting, welding, grinding, or demolition of any painted surface should not be performed under dry conditions in which airborne dust can be generated. Similarly, renovation/demolition activities that may impact lead-containing components are a concern with respect to the generation of airborne lead dust; therefore, safety measures such as the use of engineering controls are essential in order to protect human health and the environment. Contractors performing renovation/demolition activities in which excessive amounts of lead dust may be generated shall be trained in the hazards of lead-containing materials and the subsequent removal, cleaning, packaging, and handling of these materials as well as wearing NIOSH approved respirators, disposable clothing, and other requirements of the standard. All work operations shall be performed in accordance with the following:

- ❑ *OSHA 29 CFR Part 1926.62, Lead Standard.*

The lead dust generated from any renovation work must be contained so that exposure is minimal, for both the workers and any occupants. After any renovation work is completed the dust should immediately be cleaned in order to prevent migration to other areas of the structure or waterway.

If you should have any questions at all concerning the information contained herein, or in general, please do not hesitate to contact me at (207) 604-2581 or via email at deb.atlanticenvironmental@gmail.com.

Sincerely,

Deborah A. Kasik

Deborah A. Kasik

Lead Risk Assessor (LR#0003)

Enclosures

ENVIRONMENTAL LEAD-BASED XRF RESULTS

[illegible]

ENVIRONMENTAL LEAD-BASED XRF RESULTS

[illegible]

April 29, 2013

Dennis Kingman
Summit Environmental Consultants, Inc.
8 Harlow Street, Suite 4A
Bangor, Maine 04401

RE: Lead-Based Paint XRF Testing
Swan's Island Light Station – Oil House
AES Job #: 13-145

Dear Mr. Kingman:

Atlantic Environmental Services has completed the environmental lead-based paint testing at the Oil House located at the Swan's Island Light Station in Swan's Island, Maine.

Purpose

The purpose of this testing was to determine the presence of lead-based paint on components throughout the facility (both interior and exterior). The lead-based paint testing was performed utilizing a portable X-ray Fluorescence Analyzer (XRF) that non-destructively tests for the presence of lead on building components. Once lead-containing components were identified, a visual assessment as to the current condition of the paint was also performed.

Lead Testing Procedures

On April 8, 2013, I, Deborah A. Kasik, *ME DEP* certified Lead Risk Assessor, License #LR-0003, performed the Lead-Based Paint Testing.

The lead-based paint testing was performed in accordance with the established protocols outlined in the *State of Maine Department of Environmental Protection's* Lead Management Regulations, Chapter 424, Section 7, as they apply to this project. The testing provides information on the lead-based paint content and assessment of condition for the surfaces tested. All results have been included on the field forms for your review.

The lead-based paint testing was conducted utilizing a portable X-ray Fluorescence Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of lead-based paint. This equipment is licensed with the Department of Human Services Radiation Control Program and operated in accordance with all applicable regulations and conditions of licensure.

Explanation of Analysis Methods

The X-ray Fluorescence Lead Paint Analyzer is a complete lead paint analysis system that quickly, accurately, and non-destructively measures the concentration of lead-based paint on surfaces. X-ray Fluorescence is a common technique utilizing gamma rays to bombard the surface, causing the atoms in the paint to emit characteristic X-rays. These characteristic X-rays are detected and analyzed to provide the apparent lead concentration information.

The RMD LPA-1 has the ability to read concentrations of lead in paint up to 9.9 milligrams per square centimeter; if the content of lead in the paint is greater than 9.9, the reading for that component will be listed as >9.9 mg/cm². The minimum detection limit of this particular equipment is 0.3 milligrams per square centimeter.

Calibration of the equipment is required by regulation and, as indicated on the Field Sheets, the readings were within the limits established by the manufacturer.

Limitations

In certain circumstances, leaded components may be covered by other building components, such as sheetrock over old painted walls and ceilings. It should be understood that the lead testing process is non-destructive, unless authorization has been received by the Owner to access otherwise inaccessible components. Those areas where access was achievable, the surfaces were tested and the results included on the field forms. In cases where the components were inaccessible, the Owner may either assume that these inaccessible components contain lead-based paint or have them tested when renovation work may disturb them. The XRF readings obtained on the accessible surface are therefore for that surface only (i.e. XRF reading on paneling) and do not apply to the surface beneath it.

Observations/Results

Lead-based paint XRF testing was performed both on the interior and exterior of the Oil House structure. All accessible building components were tested for the presence of lead-based paint, including, but not limited to, ceiling (wood), walls (brick), doors & trim, floors, and exterior components.

Lead-based paint was identified on both the interior and exterior of the Oil House. A summary of the lead-based paint test results is as follows:

Interior:

- Ceiling (wood)
- Walls (brick)
- Shelving Units
- Stored Large Doors (no # indicated)

Exterior:

- Brick Siding
- Soffit, Fascia, Frieze Board (Cupula included)
- Broken Masonry (near door and around perimeter)

The components identified as lead-containing were found to be in good-poor condition. The renovation plan includes a new walkway to this structure; the broken masonry may need to be moved to accomplish that task. Pre-existing paint chip debris was noted on the interior; no visible paint chip debris was noted on the exterior.

Explanation of Results

In some cases, components found to contain lead-based paint will be assessed in terms of the condition of the paint. This assessment is based on the definitions outlined in the DEP regulations and utilized as an industry standard. There are three different classifications for paint condition - good, fair, and poor, which are 'generally' defined as follows:

- GOOD: paint which is entirely intact.
- FAIR: paint is intact, but worn; minor chips are evident as a result of normal wear and tear; no adhesion or substrate problems, e.g. no broken wallboard is present.
- POOR: paint is severely worn, weathered, or no longer adhering, i.e. peeling, cracking, flaking, chalking; or the substrate is broken, exposed, or otherwise deteriorated.

Recommendations

The objective of this testing was to determine the presence of lead-based paint. All scraping, sanding, cutting, welding, grinding, or demolition of any painted surface should not be performed under dry conditions in which airborne dust can be generated. Similarly, renovation/demolition activities that may impact lead-containing components are a concern with respect to the generation of airborne lead dust; therefore, safety measures such as the use of engineering controls are essential in order to protect human health and the environment. Contractors performing renovation/demolition activities in which excessive amounts of lead dust may be generated shall be trained in the hazards of lead-containing materials and the subsequent removal, cleaning, packaging, and handling of these materials as well as wearing NIOSH approved respirators, disposable clothing, and other requirements of the standard. All work operations shall be performed in accordance with the following:

- ❑ *OSHA 29 CFR Part 1926.62, Lead Standard.*

The lead dust generated from any renovation work must be contained so that exposure is minimal, for both the workers and any occupants. After any renovation work is completed the dust should immediately be cleaned in order to prevent migration to other areas of the structure or waterway.

If you should have any questions at all concerning the information contained herein, or in general, please do not hesitate to contact me at (207) 604-2581 or via email at deb.atlanticenvironmental@gmail.com.

Sincerely,

Deborah A. Kasik

Deborah A. Kasik

Lead Risk Assessor (LR#0003)

Enclosures

ENVIRONMENTAL LEAD-BASED XRF RESULTS

[illegible]

ENVIRONMENTAL LEAD-BASED XRF RESULTS

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Appendix F

PHOTOGRAPHIC LOG

KEEPER'S HOUSE

Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 1		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Keeper's House Basement Area ACM Cementitious & Gasket Material		

Photo No. 2	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Keeper's House Basement Area ACM Cementitious Material (single piece); In corner	

PHOTOGRAPHIC LOG


Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 3		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Keeper's House Second Floor ACM 9-inch by 9-inch Gray Mottled Floor Tile and associated adhesive		

Photo No. 4	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Keeper's House Second Floor ACM 9-inch by 9-inch Red Mottled Floor Tile and associated adhesive	

Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 5		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Keeper's House Universal Waste Second Floor Bedroom #1 – Two (2) fixtures stored in the front closet		

Photo No. 6	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Keeper's House Lead-Based Paint Basement – Wood Walls and Trim	

Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 7		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Keeper's House Lead-Based Paint Stairway to 2 nd Floor Ceiling, Walls, Window Trim & Sash, Treads, Risers, Mopboards/Baseboards		

Photo No. 8	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Keeper's House Lead-Based Paint Exterior – Upper Clapboard Siding/Trim, Support Posts (Note: original, non-restored fixed sash window above porch)	

PHOTOGRAPHIC LOG

Client Name: Town of Swan's Island	Project No. 13-3055
Photo No. 9	
Date: April 8, 2013	
Site Location: Swan's Island Light House	
Description: Keeper's House Visible mold growth on second floor walls and ceiling.	

LIGHT HOUSE


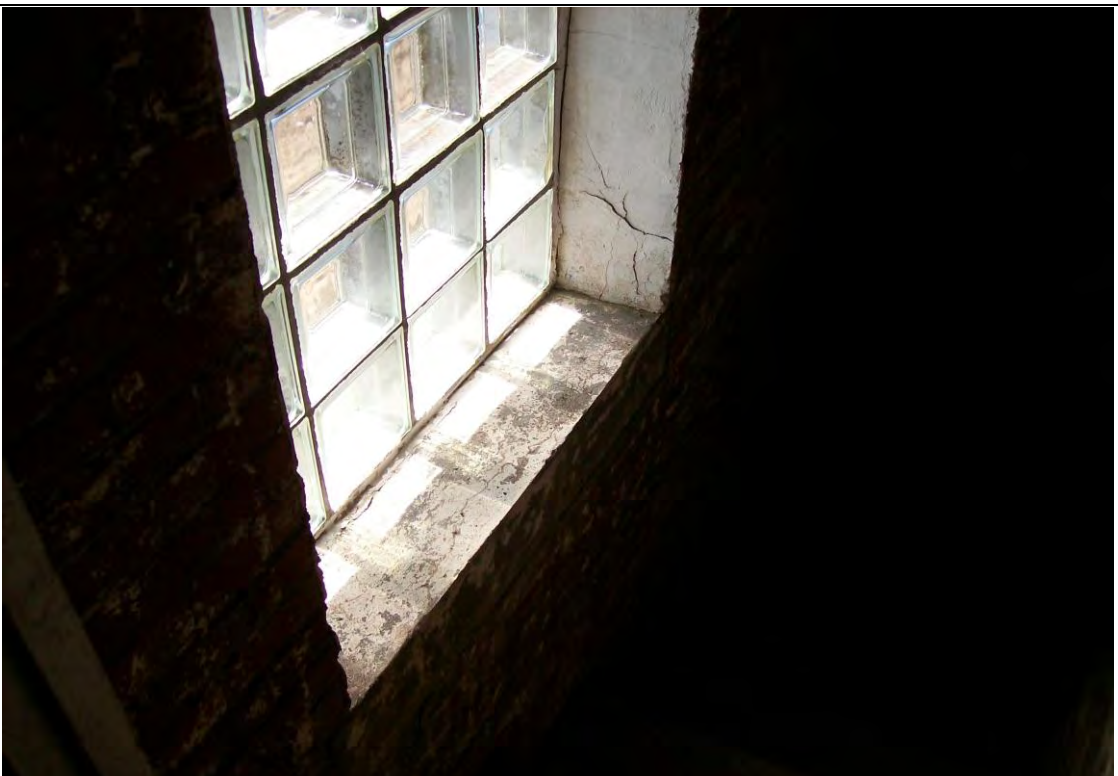
Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 1		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Lighthouse Exterior Lead-Based Paint Platform & Associated Components		

Photo No. 2	
Date: April 8, 2013	
Site Location: Swan's Island Light House	
Description: Lighthouse Interior Lead-Based Paint Two distinct types of wood flooring	


PHOTOGRAPHIC LOG

Client Name: Town of Swan's Island	Project No. 13-3055
Photo No. 3	
Date: April 8, 2013	
Site Location: Swan's Island Light House	
Description: Lighthouse Interior Lead-Based Paint Metal Stair Treads with one stair riser beneath this door frame; door frame also contains lead-based paint.	

Photo No. 4	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Lighthouse Interior Lead-Based Paint Deteriorated paint on masonry frame (note: residual paint on brick does not contain lead)	

PHOTOGRAPHIC LOG

Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 5		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Lighthouse Interior Lead-Based Paint Upper Level of Tower – residual paint on metal		

Photo No. 6	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Lighthouse Interior Lead-Based Paint Lantern Walls (wood)	

PHOTOGRAPHIC LOG

Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 7		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Lighthouse Interior with exterior view of metal rail Lead-Based Paint Wood walls and metal window frames		

Photo No. 8	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Lighthouse Interior Lead-Based Paint Lantern Metal Ceiling	

PHOTOGRAPHIC LOG


Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 9		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Lighthouse Interior/Exterior Lead-Based Paint Wood Access Door with metal components to walkway		

Photo No. 10	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Lighthouse Interior/Exterior Lead-Based Paint Close-up view	

THE BELL HOUSE

Client Name: Town of Swan's Island		Project No. 13-3055
Photo No. 1		
Date: April 8, 2013		
Site Location: Swan's Island Light House		
Description: Bell House Interior Lead-Based Paint Support Beam		

Photo No. 2	
Date: April 8, 2013	
Site Location: Swans Island Light House	
Description: Bell House Interior Lead-Based Paint Residual Paint around Perimeter	

Client Name: Town of Swan's Island	Project No. 13-3055
Photo No. 3	
Date: April 8, 2013	
Site Location: Swan's Island Light House	
Description: Bell House Exterior Lead-Based Paint Entry Door Jamb	

THE OIL HOUSE

Client Name:

Town of Swan's Island

Project No.

13-3055

Photo No. 1
Date:

April 8, 2013

Site Location:

Swan's Island Light
House

Description:

Oil House
Exterior
Lead-Based Paint


Photo No. 2
Date:

April 8, 2013

Site Location:

Swans Island Light
House

Description:

Oil House
Interior
Lead-Based Paint



SECTION 002100 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Items indicated to be removed and reinstalled include:
 - 1. wood panels (and associated hardware) in the Tower lantern;
 - 2. window glass and astragals in the Tower lantern;
 - 3. hardwood flooring and wood door trim in the Tower watch room;
 - 4. Wall baseboard;
 - 5. railings
 - 6. handrails
 - 7. bathroom fixtures;
 - 8. wainscot;
 - 9. window and door trim,
 - 10. miscellaneous hardware
- B. Items indicated to be removed and salvaged remain Owner's property. Remove, clean, and deliver to Owner's designated storage area or leave plainly marked in the appropriate rooms/areas of the Keeper's House. Keeper's House items include;
 - 1. wall baseboard;
 - 2. railings;
 - 3. handrails;
 - 4. bathroom fixtures;
 - 5. wainscot;
 - 6. window and door trim;
 - 7. associated window and door hardware.
 - 8. miscellaneous hardware
- C. Comply with EPA regulations and hauling and disposal regulations of authorities having jurisdiction.
- D. Contractor Access: The Contractor will have access to the site until Friday, June 13, 2014. The Owner must have access to the entire Lighthouse Tower and to the first floor of the Keeper's House on or before 9 a.m. on Saturday, June 14, 2014. It is understood by all parties that both the Keeper's House and the Tower must be open and available to the public during the period from June 14 to September 1, 2014. In the event that all work has not been accomplished on or before June 13, 2014, all parties agree that the Contractor shall
 - 1. on or before June 13, 2014, remove all evidence of construction from the site;
 - 2. ensure that the first floor and landscaping is in its current state, and;
 - 3. resume work on or about September 2, 2014.

- E. Hazardous materials will be encountered in the Work. Please refer to the report in the Specifications prepared by Summit Environmental Consultants on May 23, 2013 for descriptions and locations of hazardous materials. If other materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Engineer and Owner.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Maintain services/systems indicated to remain; protect them against damage during selective demolition operations. The Contractor shall take care not to damage previously restored elements of the Keeper's House by taking the following precautions and any additional means as he/she may deem necessary;
 - 1. On the interior, the floors, windowsills and interior of the windows shall be covered with a dust and gritproof membrane carefully taped with painter's tape at the edges to exclude dust and to prevent grit from grinding into finished surfaces.
 - 2. Seal the entrance to the second floor staircase to minimize the spread of lead/asbestos/mold/dust.
 - 3. Contractor shall consider removing non-asbestos debris from upstairs by erecting a temporary chute from a second story window. Framework supporting this chute must be free-standing, not attached to the existing clapboards, and the footings of this framework must not damage the plants in front of the house. If such a chute is used, care must be taken not to damage the historic windowsills or moldings.
 - 4. If it becomes necessary to carry debris through the first floor, provide additional measures to protect the restored historic floors, walls, jambs, and moldings.
- B. Repair damage to existing lawns or grounds resulting from selective demolition operations.
- C. Provide temporary barricades and other protection required to prevent injury to people and damage to areas adjacent to areas of work. .
- D. Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction to remain or construction being demolished.
- E. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. **Promptly remove demolished materials from the site and legally dispose of them. Do not burn demolished materials.**

END OF SECTION 01732

PAINTING REMOVAL AND RESURFACING SCHEDULE -- TOWER

Location/Item/Material	Approx. Quantity (sq. ft.)	Surface Prep Treatment	Primer Material and Mfr	Finish Coat Material and Mfr. (exact colors tbd)
Wood Ceilings and Beams below Watchroom	290	CHEMICAL STRIPPER <u>OR</u> Soft Media Blasting and Sanding SSPC-AB4 Sponge Jet	2 coats Sherwin-Williams Alkyd/Linseed Oil Primer	Sherwin-Williams Duration Exterior Latex Eggshell, K34 Series
Masonry Walls around Window Units (brick)	484	CHEMICAL STRIPPER <u>OR</u> Needlegun	Cathedral Stone MasonRE	Cathedral Stone MasonRE
Metal Stairs (tops, faces, under-sides)	25 treads + 4 landings + 1 riser 180 sf + 80 sf + 3 sf	SSPC-SP10	Sherwin-Williams Kem-Bond HS Universal Metal Primer	Sherwin-Williams Pro Industrial Gloss Urethane Industrial Enamel
Metal Stairs (masonry penetration)	35	Grind joint in ½" minimum SSPC-SP3	Ship-2-Shore PLID Coating	N/A
Casing, Jamb, Threshold	25	Soft Media Blasting and Sanding SSPC-AB4 Sponge Jet	2 coats Sherwin-Williams Alkyd/Linseed Oil Primer	Sherwin-Williams Duration Exterior Latex Gloss, K34 Series
Wood Floor in Watchroom	72	Soft Media Blasting and Sanding SSPC-AB4 Sponge Jet	2 Coats Sherwin-Williams Alkyd/Linseed Oil Primer	Sherwin-Williams Pro Industrial Gloss
Metal Ceilings and Frames around Lantern	308	SSPC-SP10	Sherwin-Williams Kem-Bond HS Universal Metal Primer	Sherwin-Williams Pro Industrial Gloss Urethane Industrial Enamel White, Approved By Engineer/Conservator
Hatch Door / Metal Floor (Lantern)	64	SSPC-SP10	Sherwin-Williams Kem-Bond HS Universal Metal Primer	Sherwin-Williams Pro Industrial Gloss Urethane Industrial Enamel
Wood Walls – Wainscot (Lantern)	48	CHEMICAL STRIPPER <u>OR</u> Soft Media Blasting and Sanding SSPC-AB4 Sponge Jet	Two Coats Sherwin-Williams Alkyd/Linseed Oil Primer	Sherwin-Williams Duration Exterior Latex Gloss, K34 Series White, Approved by Engineer/Conservator
(Walkway (top and underside)	290	SSPC-SP10	Sherwin-Williams Kem-Bond HS Universal Metal Primer	Sherwin-Williams Pro Industrial Gloss Urethane Industrial Enamel Gloss Black



Surface Preparation Guide

Surface Preparation
To Ensure
Coating Adhesion



To learn more, visit us at
www.sherwin-williams.com/im
or call 1-800-524-5979 to have
a representative contact you.



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Surface Preparation

Coating performance is directly affected by surface preparation. Coating integrity and service life will be reduced because of improperly prepared surfaces. As high as 80% of all coating failures can be directly attributed to inadequate surface preparation that affects coating adhesion. Selection and implementation of the proper surface preparation ensures coating adhesion to the substrate and prolongs the service life of the coating system.

The majority of paintable surfaces are concrete, ferrous metal, galvanizing and aluminum. They all require protection to keep them from corroding in aggressive environments. Selection of the proper method for surface preparation depends on the substrate, the environment, the coating selected and the expected service life of the coating system. Economics, surface contamination and the environment will also influence the selection of surface preparation methods.

Previously Coated Surfaces

Maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Washing with an abrasive cleanser will clean and dull in one operation, or, wash thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer. Recognize that any surface preparation short of total removal of the old coating may compromise the service life of the system. Check for compatibility by applying a test patch of the recommended coating system, covering at least 2 to 3 square feet. Allow to dry one week before testing adhesion per ASTM D3359. If the coating system is incompatible, complete removal is required.

Touch-Up, Maintenance and Repair

For a protective coating system to provide maximum long-term protection, regularly scheduled maintenance is required. Maintenance includes inspection of painted areas, cleaning of surfaces to remove oils, chemicals, and other contaminants, and touch-up of areas where the coatings have been damaged. Highly corrosive areas, such as those subjected to frequent chemical spillage, corrosive fumes and/or high abrasion or temperature, should be inspected frequently – every six months, for example. Areas exposed to less severe conditions, such as interiors and exteriors of potable water tanks, may be inspected annually to assess the condition of the coating system.

The SSPC-VIS 2, Standard Method for Evaluating Degree of Rusting on Painted Steel Surfaces, can be used as a guide to determine appropriate touch-up and repair maintenance schedules.

Non-Ferrous Metal Surfaces and Concrete

Aluminum

Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning.

Galvanized Metal

Allow to weather a minimum of six months prior to coating. Clean per SSPC-SP1 using detergent and water or a degreasing cleaner, then prime as required. When weathering is not possible or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test area, priming as required. Allow the coating to cure at least one week before testing per ASTM D3359. If adhesion is poor, Brush Blast per SSPC-SP7/NACE 4 is necessary to remove these treatments.

Ductile Iron

National Association of Pipe Fabricators, Inc. www.napf.com

NAPF 500-03 Surface Preparation Standard for Ductile Iron Pipe and Fittings in Exposed Locations Receiving Special External Coatings and/or Special Internal Linings

This standard summarizes the surface preparation requirements for ductile iron. Included within this standard are the following:

NAPF 500-03-01	Solvent Cleaning
NAPF 500-03-02	Hand Tool Cleaning
NAPF 500-03-03	Power Tool Cleaning
NAPF 500-03-04	Abrasive Blast Cleaning for Ductile Iron Pipe
NAPF 500-03-05	Abrasive Blast Cleaning for Cast Ductile Iron Fittings

Attempts to apply steel surface preparation specifications to ductile iron is inappropriate and may actually result in damage to the pipe surface with subsequent reduced coating effectiveness and life expectancy.

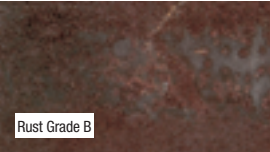
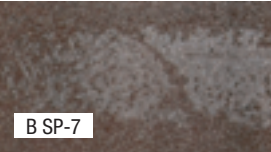
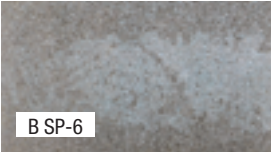
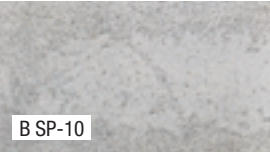
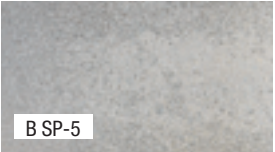
Concrete

International Concrete Repair Institute www.icri.org

No. 03732 Guideline for Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays

This standard summarizes the capabilities, operating requirements, and limitations of the various methods used to prepare concrete surfaces for the application of protective sealers, coatings, and polymer overlays. Benchmark profiles are included which provide visual standards for purposes of specification, application and verification.

ICRI 03732 identifies 12 different concrete surface preparation methods and uses nine profile replicates to use as a visual standard to ensure the specified Concrete Surface Profile (CSP 1-9) is achieved.



SSPC/NACE Standards

SSPC-SP1 – Solvent Cleaning

Solvent Cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation. For complete instructions, refer to Society of Protective Coatings Surface Preparation Specification No.1.

SSPC-SP2 – Hand Tool Cleaning

Hand Tool Cleaning removes all loose mill scale, loose rust and other detrimental foreign matter. It is not intended that adherent mill scale, rust and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Before hand tool cleaning, remove visible oil, grease, soluble welding residues and salts by the methods outlined in SSPC-SP1. For complete instructions, refer to Society of Protective Coatings Surface Preparation Specification No.2.

SSPC-SP3 – Power Tool Cleaning

Power Tool Cleaning removes all loose mill scale, loose rust and other detrimental foreign matter. It is not intended that adherent mill scale, rust and paint be removed by this process. Mill scale, rust and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Before power tool cleaning, remove visible oil, grease, soluble welding residues and salts by the methods outlined in SSPC-SP1. For complete instructions, refer to Society of Protective Coatings Surface Preparation Specification No.3.

SSPC-SP5/NACE 1 – White Metal Blast Cleaning

A White Metal Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods. For complete instructions, refer to Joint Surface Preparation Standard SSPC-SP5/NACE 1.

SSPC-SP6/NACE 3 – Commercial Blast Cleaning

A Commercial Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter, except for staining. Staining shall be limited to no more than 33% of each square inch of surface area and may consist of light shadows, slight streaks or minor discoloration caused by stains of rust, stains of mill scale or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods. For complete instructions, refer to Joint Surface Preparation Standard SSPC-SP6/NACE 3.

SSPC-SP7/NACE 4 – Brush-Off Blast Cleaning

A Brush-Off Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust and loose paint. Tightly adherent mill scale, rust and paint may remain on the surface. Mill scale, rust and coating are considered adherent if they cannot be removed by lifting with a dull putty knife after abrasive blast cleaning has been performed. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods. For complete instructions, refer to Joint Surface Preparation Standard SSPC-SP7/NACE 4.

SSPC-SP10/NACE 2 – Near White Blast Cleaning

A Near-White Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter, except for staining. Staining shall be limited to no more than 5 percent of each square inch of surface area and may consist of light shadows, slight streaks or minor discoloration caused by stains of rust, stains of mill scale or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods. For complete instructions, refer to Joint Surface Preparation Standard SSPC-SP10/NACE 2.

SSPC-SP11 – Power Tool Cleaning to Bare Metal

Metallic surfaces that are prepared according to this specification, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxide corrosion products and other foreign matter. Slight residues of rust and paint may be left in the lower portions of pits if the original surface is pitted. The profile shall not be less than 1 mil. Prior to power tool surface preparation, remove visible deposits of oil or grease by any of the methods specified in SSPC-SP1, Solvent Cleaning, or other agreed upon methods. For complete instructions, refer to Society of Protective Coatings Surface Preparation Specification No.11.

SSPC-SP12/NACE 5 – High and Ultra-High Pressure Water Jetting for Steel and Other Hard Materials

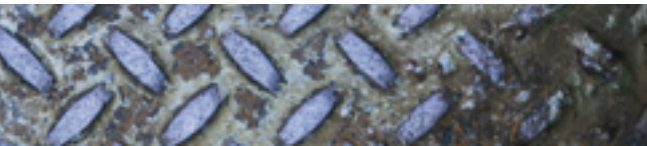
This standard provides requirements for the use of high and ultra-high pressure water jetting to achieve various degrees of surface cleanliness. This standard is limited in scope to the use of water only, without the addition of solid particles in the stream. For complete instructions, refer to Joint Surface Preparation Standard SSPC-SP12/NACE 5.

SSPC-SP13/NACE 6 – Concrete

This standard gives requirements for surface preparation of concrete by mechanical, chemical or thermal methods prior to the application of bonded protective coating or lining systems. The requirements of this standard are applicable to all types of cementitious surfaces including cast-in-place concrete floors and walls, precast slabs, masonry walls and shotcrete surfaces. An acceptable prepared concrete surface should be free of contaminants, laitance, loosely adhering concrete and dust, and should provide a dry, sound, uniform substrate suitable for the application of protective coating or lining systems. (Depending upon the desired finish and system, a block filler may be required.) For complete instructions, refer to Joint Surface Preparation Standard SSPC-SP13/NACE 6.



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