

## TOWN COUNCIL MINUTES

SEPTEMBER 4, 2012

Due to the Labor Day holiday, the regularly scheduled meeting of the Hampden Town Council was held on Tuesday, September 4, 2012. The meeting was held at the municipal building council chambers and was called to order by Mayor Hughes at 7:03 p.m.

**Attendance:** **Councilors:** Mayor Janet Hughes, Andre Cushing, Thomas Brann, Jean Lawlis, Kristen Hornbrook and Jeremy Williams (until 8:00 pm); Shelby Wright was absent

**Town Manager:** Susan Lessard

**Town Counsel:** Thomas Russell

**Department Heads/Staff:** None

Citizens and a member of the press

### A. CONSENT AGENDA

Motion by Councilor Cushing, seconded by Councilor Lawlis to accept the consent agenda; unanimous vote in favor.

### B. PUBLIC COMMENTS

There were none.

### C. POLICY AGENDA

#### 1. PUBLIC HEARINGS

There were none.

#### 2. NOMINATIONS-APPOINTMENTS-ELECTIONS

##### a. REMINDER: NOMINATION PAPERS DUE SEPTEMBER 6, 2012

Town Clerk Denise Hodsdon reminded candidates that nomination papers for Councilor At-Large, School Board, and Water District Board of Trustees are due by 6:00 pm on Thursday, September 6<sup>th</sup>.

#### 3. UNFINISHED BUSINESS

##### a. DENNIS PAPER & FOOD SERVICES TAX INCREMENT FINANCING DISTRICT & DEVELOPMENT PROGRAM WITH CREDIT ENHANCEMENT AGREEMENT – SET PUBLIC HEARING FOR 9/17/2012

Motion by Councilor Brann, seconded by Councilor Lawlis to hold the public hearing on September 17, 2012; unanimous vote in favor.

b. OLD HAMPDEN ACADEMY – ADDITIONAL ENVIRONMENTAL ASSESSMENT

Mayor Hughes reported that the Phase II Environmental Assessment revealed that there are PCB containing materials in parts of the property and it has been estimated it would cost an additional \$23,000 to determine the extent of the PCB's. At its meeting earlier in the evening, the Finance & Administration Committee discussed the pros and cons of funding this step – as well as the idea of making a decision to move forward with the purchase and ask for a reduction in price due to the unanticipated presence of PCB materials. It was the Committee's recommendation that the Town move forward with the purchase by amending the offer to remove the \$87,000 cash payment portion.

Following discussion, motion by Councilor Cushing, seconded by Councilor Lawlis to authorize the Mayor, with the assistance of the Town Manager and the Town Attorney to respond to SAD 22 that the Purchase & Sale Agreement with SAD 22 for the old high school be amended, based upon the environmental assessment, to remove the \$87,000 cash portion included in the offer and to move forward with purchase if they agree to those terms; vote was 5-0 with Councilor Hornbrook abstaining.

**4. NEW BUSINESS**

a. PERMISSION TO SELL OLD JEEP & RELATED EQUIPMENT – PUBLIC SAFETY

The grant received by Public Safety for the new brush truck requires that the old Jeep and related equipment be sold. Motion by Councilor Lawlis, seconded by Councilor Brann to give Public Safety permission to sell the old Jeep and related equipment; unanimous vote in favor.

b. APPLICATION FOR OUTDOOR WOOD-BURNING FURNACE LICENSE – GARY THIBODEAU, 665 WESTERN AVENUE

Motion by Councilor Brann, seconded by Councilor Lawlis to grant the license to Gary Thibodeau for operation of an outdoor wood-burning furnace; unanimous vote in favor.

c. APPLICATION FOR LIQUOR LICENSE – BANGOR TENNIS & RECREATION CLUB, INC., 60 MECAW ROAD

Motion by Councilor Brann, seconded by Councilor Cushing to authorize the license; unanimous vote in favor.

d. PICKUP TRUCK BID RESULTS – PUBLIC WORKS

Manager Lessard reported that the Finance & Administration Committee reviewed the bid results with the Public Works Director and it was the committee's recommendation to accept the low bid from Darling's in the amount of \$19,876, to be funded from Public Works Equipment Reserve.

Motion by Councilor Brann, seconded by Councilor Cushing to authorize the purchase as recommended; unanimous vote in favor.

e. SNOWPLOW CUTTING EDGES BID RESULTS – PUBLIC WORKS

The Finance & Administration Committee reviewed the bid results and recommended acceptance of the low bid of \$8,272.02 from Messer Equipment. Because the bid amount was less than \$10,000, no Council action was required and this item was informational only.

**D. COMMITTEE REPORTS**

Services – Councilor Lawlis reported that the next meeting is scheduled for Monday, September 10<sup>th</sup>.

Planning & Development – Councilor Brann reported that the next meeting is tomorrow at 6:00 p.m.

Communications – Councilor Hornbrook reported that the Committee met on August 21<sup>st</sup> and voted to ratify the Council's decision to spend up to \$1800 to purchase a portable sound system; discussed ideas for the next newsletter; and discussed possible dates for hosting the upcoming candidate forum, with suggested dates of October 2<sup>nd</sup> or October 11<sup>th</sup>.

**E. MANAGER'S REPORT**

A copy of the Manager's Report is attached.

**F. COUNCILOR'S COMMENTS**

Councilor Hornbrook thanked the residents for attending and said she appreciates the emails and phone calls. She also noted that there was a really nice letter about Chief Rogers in the Consent Agenda this evening and recommended that everyone take a few minutes to read it.

Councilor Cushing commented that he has heard tremendous feedback on the grand opening for the new Hampden Academy and noted what a tremendous asset it is for the community. He further commented that the Council has made the decision that was necessary to assure that the Town has authority over the future development of the old Hampden Academy property

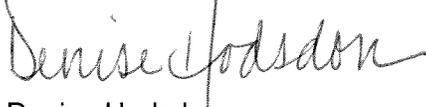
Councilor Brann reminded everyone that the Planning & Development Committee meets the first and third Wednesdays of each month. He encouraged residents to come learn about what is being proposed for the future development of the Town and to share their ideas to help make Hampden what they want it to be.

Mayor Hughes reminded the Council of the special meeting scheduled for September 18<sup>th</sup> for the purpose of reviewing the Charter, beginning with the Town Council section and then proceeding on to other sections as time allows. She congratulated SAD #22 staff and Board members on their dedication ceremony. She noted that in addition to the unveiling of the new Bronco, the cafeteria was dedicated to David Greenier and the road into the school was named after Emil Genest. Mayor Hughes also thanked

everyone who has been involved in the old Hampden Academy planning process over the last couple of years – she appreciates the comments and support.

**G. ADJOURNMENT**

There being no further business, the meeting was adjourned at 8:33 p.m.

A handwritten signature in cursive script that reads "Denise Hodsdon".

Denise Hodsdon  
Town Clerk

## MANAGER'S REPORT

September 4, 2012

Assessing Questions – Assessing questions related to tax billing for the tax bills that just went out will be answered after September 17<sup>th</sup>. The Assessor is out on short term disability (non-work-related) until at least that date. If she has not returned by that time I will make arrangements to get all questions answered prior to the first half due date of the first Wednesday in October.

BEP Chair – Effective this week, while the Senate is in session, I am being replaced by the Governor as the Chair of the Board of Environmental Protection. I have been anticipating this replacement since I was reappointed to the Board in October of 2011. At that time, the Board was in transition in terms of size and responsibilities and I was told by the Governor's office that he would likely be appointing a new chair after the beginning of the year. I will still remain as a regular member of the Board but my responsibilities in service to the Board will be greatly reduced.

Hampden Highlights Newsletter – The next edition of the newsletter will go out – hopefully! – the week of the 24<sup>th</sup> of September. The deadline for submission of information will be Thursday, the 13<sup>th</sup> of September. That should allow sufficient time to get a brief bio of each of the candidates for school, municipal, and water district board seats.



# **DRAFT Phase II Environmental Site Assessment Report**

**Hampden Academy Property  
1 Main Road North  
Hampden, Maine 04444**

*Prepared for:*

**Town of Hampden  
106 Western Avenue  
Hampden, Maine**



**August 14, 2012**

*In Reference to:*  
**Project No. 12001144**

*Submitted by:*  
**Crede Associates, LLC**  
776 Main Street  
Westbrook, ME 04092



# CREDERE ASSOCIATES, LLC

776 Main Street  
Westbrook, Maine 04092  
Phone: 207-828-1272  
Fax: 207-887-1051

August 14, 2012

Mr. Dean Bennett  
Director of Community and Economic Development  
Town of Hampden  
106 Western Avenue  
Hampden, Maine 04444

Via E-mail: [economicdevelopment@hampdenmaine.gov](mailto:economicdevelopment@hampdenmaine.gov)

**Subject: Draft Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North  
Hampden, Maine**

Dear Mr. Bennett:

Attached is a Draft Phase II Environmental Site Assessment completed at the above referenced property, hereinafter the "Site." **Sections 10** and **11** of this report present our conclusions and recommendations regarding the subject property.

Please do not hesitate to contact us at (207) 828-1272 if you have any questions, comments, or require additional information regarding this investigation.

Sincerely,

CREDERE ASSOCIATES, LLC

Richard S. Vandenberg, CG, PG  
Senior Hydrogeologist

Jedd Steinglass  
Senior Project Manager

Rip Patten PE, LSP, LEED AP  
Vice President

## TABLE OF CONTENTS

Section	Title	Page No.
<b>EXECUTIVE SUMMARY</b>		<b>ES-1</b>
<b>1. INTRODUCTION</b>		<b>1-1</b>
<b>2. PROJECT BACKGROUND</b>		<b>2-1</b>
2.1	Site Description	2-1
2.2	Summary of Phase I ESA Work	2-1
<b>3. PHASE II ESA OBJECTIVES</b>		<b>3-1</b>
3.1	Statement of Objectives	3-1
3.2	Schedule, Cost, and Budget Limitations	3-1
3.3	Information and Explanation	3-1
3.4	Scope of Work	3-2
3.5	Comments Regarding Compensation	3-2
3.6	Issues Beyond the Scope of ASTM Practice	3-2
<b>4. PHASE II SCOPE OF WORK</b>		<b>4-1</b>
<b>5. PHASE II FIELD ACTIVITIES</b>		<b>5-1</b>
5.1	Soil Borings	5-1
5.2	Soil Sampling Activities	5-2
5.3	Groundwater Sampling	5-2
5.4	Asbestos Survey	5-3
5.5	Potential PCB-Containing Bulk Product Sampling	5-3
5.6	Visual Assessment of AST-7	5-3
<b>6. SUMMARY OF REGULATORY STANDARDS</b>		<b>6-1</b>
6.1	Soil	6-1
6.2	Groundwater	6-1
6.3	Asbestos	6-1
6.4	PCB-Containing Bulk Products	6-2
<b>7. PHASE II RESULTS</b>		<b>7-1</b>
7.1	Site Groundwater and Hydrogeology	7-1
7.2	Site Geology	7-1
7.3	Soil Sample Results	7-1
7.4	Groundwater Sample Results	7-2
7.5	Asbestos Survey Results	7-2
7.6	Potential PCB-Containing Bulk Product Results	7-3
7.7	Visual Assessment of AST-7	7-3
<b>8. DEVIATIONS</b>		<b>8-1</b>
<b>9. DATA GAPS</b>		<b>9-2</b>



---

<b>10. CONCLUSIONS .....</b>	<b>10-1</b>
<b>11. RECOMMENDATIONS.....</b>	<b>11-1</b>
<b>12. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS .....</b>	<b>12-1</b>
<b>13. LIMITATIONS.....</b>	<b>13-1</b>

---

## LIST OF TABLES

---

Table 1 .....	Summary of Analytical Results for Subsurface Soil Samples
Table 2 .....	Summary of Analytical Results for Groundwater Samples
Table 3 .....	Summary of Analytical Results for PCB Building Material Samples

---

## LIST OF FIGURES

---

Figure 1 .....	Site Location Map
Figure 2 .....	Detailed Site Plan
Figure 3 .....	Soil Sample Location & Results Plan
Figure 4 .....	Groundwater Sample Location & Results Plan
Figure 5 .....	PCB Sample Location & Results Plan

---

## APPENDICES

---

Appendix A.....	Scope of Work
Appendix B.....	Photographs
Appendix C.....	Soil Boring Logs
Appendix D.....	Groundwater Sampling Logs
Appendix E.....	Laboratory Analytical Results
Appendix F.....	Asbestos Survey Report



## EXECUTIVE SUMMARY

Credero Associates, LLC (Credero) has conducted a Phase II Environmental Site Assessment (ESA) at the Hampden Academy property located at 1 Main Street North in Hampden, Maine (the Site) in conformance with the American Society of Testing Materials (ASTM) Guidance for Phase II ESAs E 1903-11.

This Phase II ESA was performed to investigate environmental media and building materials, and to confirm or dismiss two of five recognized environmental conditions (RECs) identified during a Phase I ESA that was completed by Credero on May 15, 2012. The identified RECs are presented below:

- REC-1 – The former use of underground storage tanks (USTs), specifically UST-3, UST-4, and UST-6, represents a REC because limited information is available regarding the condition of each tank and the environmental conditions surrounding each tank prior to closure. Based on the age of the USTs, undocumented releases may have impacted the environmental conditions of the Site.
- REC-2 – Multiple former No. 2 fuel oil and diesel USTs located on properties adjacent to and potentially upgradient of the Site represent a REC because, based on the lack of information regarding the conditions of the tanks and the environmental conditions surrounding each tank, potential undocumented releases may have occurred. These potential releases may have impacted the environmental conditions of the Site.
- REC-3 – Two (2) on-site septic systems noted on-Site represent a REC because disposal of hazardous substances may have been directed to them from historical practices associated with science, art, and photography classes taught in the school. These potential releases to the septic system may have impacted the environmental conditions of the Site.
- REC-4 – The presence of floor drains in the furnace rooms represent a REC because undocumented releases of oil and/or hazardous substances to the septic system or to potentially undocumented drywells may have occurred. These potential releases may have impacted the environmental conditions of the Site.
- REC-5 – Discarded automobiles, an automobile gasoline tank, and building debris were observed on the Site. This condition represents a REC because oil and/or hazardous substances may have been released from the discarded items and impacted the environmental conditions of the Site.

Credero also identified the one (1) *de minimis* environmental condition (DMEC) during the Phase I ESA completed at the subject property.

- DMEC-1 – Multiple small oil stains were observed on the floors in the furnace rooms and on some of the No. 2 fuel oil aboveground storage tanks (ASTs). However, there is a low probability that these conditions were associated with a significant release of oil, and it is



unlikely that the observed staining would be regulated by the Maine Department of Environmental Protection.

The following three (3) ASTM Non-Scope environmental conditions (NCs) were also noted during the previously completed Phase I ESA:

- NC-1 – Asbestos has been previously identified within the Site buildings.
- NC-2 – Based on the age of the Site buildings, lead-based paint, and/or polychlorinated biphenyl (PCB)-containing building materials may be present in interior and exterior building materials and components.
- NC-3 – Depending on the future redevelopment plans for the Site, materials and equipment such as fluorescent lighting bulbs and ballasts, thermostats, exit signage, batteries, electrical equipment, switches, and cleaning and maintenance supplies within the buildings at the Site will likely be classified as universal and/or hazardous waste if they are no longer being used or are removed from service.

In accordance with our June 19, 2012, approved work scope, Credere conducted Phase II ESA activities to confirm or dismiss the presence of REC-1 and REC-3, and NC-1 and NC-2. Assessment of REC-2, REC-4, REC-5, and NC-3 was not included as a part of this Phase II ESA. A summary of the work tasks completed during this Phase II ESA are included below:

1. A Site specific Health and Safety Plan was developed for investigatory personnel and the area of investigation was cleared for public utilities by DigSafe.
2. Two (2) soil borings were advanced in the perceived downgradient direction of UST-4 to investigate potential release(s) of petroleum from this tank (REC-1). The two borings were installed due to an initial shallow refusal at bedrock. Soil samples from both of these borings were continuously collected and field screened for volatile organic compounds (VOCs). One representative soil sample was collected from the second boring and analyzed for extractable petroleum hydrocarbons (EPH) at an independent, Maine-certified laboratory.

In addition, one (1) soil boring was advanced in the area of the abandoned-in-place UST-6 and the previously removed UST-3 (REC-1) to assess if releases have occurred from these tanks. Soil samples from this boring were continuously collected and screened for VOCs in the field. One soil sample was collected from this boring and analyzed for EPH at an independent, Maine-certified laboratory.

3. Two (2) soil borings were advanced in the perceived downgradient direction of the two on-Site septic systems (REC-3) to assess the condition of the soil and groundwater in these areas of the Site. Soil samples were continuously collected and screened for VOCs in the field and one soil and one groundwater sample was collected from each boring and analyzed for VOCs, RCRA 8 Metals, and EPH at an independent, Maine-certified laboratory
4. To assess NC-1, Environmental Safety Professionals, Inc. of Brewer, Maine conducted an asbestos survey to assess materials that were not sampled as a part of a previous Asbestos



Hazard Emergency Response Act (AHERA) survey. Forty-three (43) samples (excluding composite or layered samples) of previously unsampled suspect asbestos or materials not included in the original AHERA survey were collected and analyzed at a Maine-certified laboratory.

5. To assess NC-2, Credere inventoried suspect polychlorinated biphenyl (PCB)-containing building materials at the Site and collected 20 representative samples for off-Site PCB analysis at an independent Maine-certified laboratory.

Based on the findings of this investigation work, Credere makes the following conclusions:

- REC-1 is dismissed because no evidence of soil contamination at levels that exceeded the applicable regulatory guidelines was identified in connection with UST-3, UST-4, or UST-6.
- REC-3 is confirmed because groundwater sampling revealed concentrations of lead in groundwater at levels that exceeded the applicable regulatory guidelines in connection with the septic leach field located east of Building 10.
- Assessment of NC-1 revealed the presence of additional asbestos at the Site that was not previously identified during the AHERA survey.
- Assessment of NC-2 revealed that some painted floors in Building 4, Building 6, and Building 10 meet the definition of PCB bulk product waste and are regulated for proper disposal.

Based on the findings and conclusions of this Phase II ESA, the following additional work is recommended:

- Credere recommends that REC-2, REC-4, REC-5, and NC-3, which were specifically not assessed as a part of this scope of work, be assessed by conducting additional Phase II ESA work.
- Regarding the presence of lead in groundwater associated with the septic system east of Building 10, Credere recommends that this issue be submitted to the Maine Department of Environmental Protection (DEP) Voluntary Response Action Program (VRAP). Because the Site is in an area where public drinking water is provided, an acceptable method of cleanup for this issue would be a deed restriction to prevent the on-Site use of groundwater for drinking purposes.
- Regarding the identified asbestos containing building materials, Credere recommends that regulated materials be properly abated prior to or during any future redevelopment of the Site.
- Additional PCB sampling is recommended to delineate the extent of PCB bulk product waste in Buildings 4, 6, and 10, and to determine if any associated porous materials in close proximity to the identified PCB bulk product waste have become contaminated.



- The following additional recommendations that were included in the Phase I ESA are carried forward and included here:
  - All small-volume containers (less than 50 gallons each) of petroleum products and/or hazardous substances that will remain in use should be consolidated and properly stored to prevent accidental releases to the environment. All materials that will not be used should be consolidated and properly disposed once removed from service.
  - Depending on the future redevelopment plans for the Site, a lead-based paint survey should be completed to confirm or dismiss the presence, and/or delineate the extent of lead-based paint on or within the Site buildings. In addition, a universal and hazardous waste inventory should be performed and all identified universal and hazardous wastes should be properly disposed prior to or during redevelopment.
  - Product contained in the out-of-service AST-1 and AST-2, which are not in service, should be removed and properly disposed.



## 1. INTRODUCTION

This report presents the results of a Phase II Environmental Site Assessment (ESA) conducted by Credere Associates, LLC (Credere) at the Hampden Academy property located at 1 Main Street North in Hampden, Maine (the Site). This Phase II ESA was completed in conformance with the American Society of Testing Materials (ASTM) E 1903-11 Standard Practice for Phase II ESAs and our June 19, 2012, proposal to evaluate two of five recognized environmental conditions (RECs) identified during our Phase I ESA completed on May 15, 2012. Assessment of REC-2, REC-4, REC-5, or NC-3 was not included as a part of this Phase II ESA.

Credere's work scope is detailed in our June 19, 2012, proposal to Mr. Dean Bennett of the Town of Hampden (**Appendix A**). Photographs taken during the completion of this Phase II ESA are included in **Appendix B**. **Figure 1** shows the general location of the Site, and pertinent Site features are presented on **Figure 2**.



## 2. PROJECT BACKGROUND

### 2.1 SITE DESCRIPTION

The Site consists of three (3) contiguous parcels of land totaling approximately 21.2 acres located at 1 Main Road North in Hampden, Maine. The parcels are listed in the Town of Hampden Assessor's database as Map 36 Lot 7, Map 41 Lot 5, and Map 41 Lot 4, which are referred to hereinafter as parcel 1, parcel 2, and parcel 3, respectively.

The Site currently contains a total of 16 buildings, all of which are associated with the Hampden Academy High School. The oldest building on the Site was constructed in 1843 and is listed on the National Register of Historic Places. Other stationary buildings on the Site were constructed at various times between the 1950s and the early 2000s. Five (5) mobile trailers are also present at the Site, each of which contains two classrooms. The mobile trailers were placed on the Site between 1995 and 2002.

The Site has reportedly been used as an educational facility since 1803. Prior to 1803, the Site was reportedly used as a theological seminary. Portions of the Site not occupied by buildings include paved and gravel driveways and parking areas, a grass athletic field, landscaped lawn areas, and undeveloped wooded areas. The Penobscot River abuts the eastern edge of parcel 3.

**Figure 1** locates the Site on the Hampden, Maine quadrangle prepared by the United States Geological Survey (USGS). **Figure 2** is a Site plan based on observations made during Credere's Site visit and the review of Site records.

### 2.2 SUMMARY OF PHASE I ESA WORK

A Phase I ESA was completed by Credere for the Site dated May 15, 2012. The Phase I ESA was completed in accordance with ASTM Standard Practice E 1527-05. The following represents the findings and recommendations from the Phase I ESA:

Based on the information obtained as a part of the Phase I ESA, the following recognized environmental conditions (RECs) were identified at the Site:

- REC-1 – The former use of underground storage tanks (USTs), specifically UST-3, UST-4, and UST-6, represents a REC because limited information is available regarding the condition of each tank and the environmental conditions surrounding each tank prior to closure. Based on the age of the USTs, undocumented releases may have impacted the environmental conditions of the Site.
- REC-2 – Multiple former No. 2 fuel oil and diesel USTs located on properties adjacent to and potentially upgradient of the Site represent a REC because, based on the lack of information regarding the conditions of the tanks and the environmental conditions surrounding each tank, potential undocumented releases may have occurred. These potential releases may have impacted the environmental conditions of the Site.



- REC-3 – Two (2) on-site septic systems noted on-Site represent a REC because disposal of hazardous substances may have been directed to them from historical practices associated with science, art, and photography classes taught in the school. These potential releases to the septic system may have impacted the environmental conditions of the Site.
- REC-4 – The presence of floor drains in the furnace rooms represent a REC because undocumented releases of oil and/or hazardous substances to the septic system or to potentially undocumented drywells may have occurred. These potential releases may have impacted the environmental conditions of the Site.
- REC-5 – Discarded automobiles, an automobile gasoline tank, and building debris were observed on the Site. This condition represents a REC because oil and/or hazardous substances may have been released from the discarded items and impacted the environmental conditions of the Site.

Crederre also identified the one (1) *de minimis* environmental condition (DMEC) during the Phase I ESA completed at the subject property.

- DMEC-1 – Multiple small oil stains were observed on the floors in the furnace rooms and on some of the No. 2 fuel oil aboveground storage tanks (ASTs). However, there is a low probability that these conditions were associated with a significant release of oil, and it is unlikely that the observed staining would be regulated by the Maine Department of Environmental Protection.

The following three (3) ASTM Non-Scope environmental conditions (NCs) were also noted during the previously completed Phase I ESA:

- NC-1 – Asbestos has been previously identified within the Site buildings.
- NC-2 – Based on the age of the Site buildings, lead-based paint, and/or polychlorinated biphenyl (PCB)-containing building materials may be present in interior and exterior building materials and components.
- NC-3 – Depending on the future redevelopment plans for the Site, materials and equipment such as fluorescent lighting bulbs and ballasts, thermostats, exit signage, batteries, electrical equipment, switches, and cleaning and maintenance supplies within the buildings at the Site will likely be classified as universal and/or hazardous waste if they are no longer being used or are removed from service.



### 3. PHASE II ESA OBJECTIVES

In accordance with section 5.0 of ASTM 1903-11, this section was developed to provide clarity and transparency in communicating and interpreting Phase II ESA results. As this Phase II ESA was developed and performed for the Town of Hampden, Mr. Dean Bennett was involved with the review of the proposal which included as Scope of Work for this Phase II ESA (**Appendix A**) and he will review and approve this Phase II ESA report.

#### 3.1 STATEMENT OF OBJECTIVES

Crede performed a Phase II Environmental Site Assessment at 1 Main Road North, Hampden, Maine, in conformance with the scope and limitations of ASTM Practice E-1903-11 and for the following objectives:

- To assess REC-1 through the drilling of soil borings adjacent to the current locations of UST-4 and UST-6, and the former location of UST-3, and the collection of soil samples for appropriate analysis.
- To assess REC-3 by drilling borings downgradient of each septic system and collection of soil and groundwater from the borings for appropriate analysis.
- Conducting a supplemental asbestos survey to verify previously identified asbestos containing building materials (ACBM) and to assess other areas for asbestos that were not previously assessed.
- Conducting a screening level survey of the building for suspect PCB-containing building materials.
- Completing a visual inspection of AST-7 because it was not accessible during the Phase I ESA.
- The Town of Hampden was to conduct additional research regarding the discharge location of floor drains at the Site.

The scope of work that was developed in consideration of these objectives is discussed in **Section 4** of this report.

#### 3.2 SCHEDULE, COST, AND BUDGET LIMITATIONS

No significant schedule, cost, or budget limitations were observed during the completion of this Phase II ESA. As such, these factors have not compromised Crede's ability to conduct this Phase II ESA in accordance with this practice.

#### 3.3 INFORMATION AND EXPLANATION

Information and an explanation of the Phase II ESA process was provided to Town of Hampden in the June 19, 2012 proposal (see **Appendix A**).



### **3.4 SCOPE OF WORK**

**Appendix A** contains a copy of Credere's scope of work, which is also summarized in **Section 4** below.

### **3.5 COMMENTS REGARDING COMPENSATION**

Crederre's compensation for conducting this Phase II ESA was not in any way connected to the results obtained or conclusions drawn from the collected data.

### **3.6 ISSUES BEYOND THE SCOPE OF ASTM PRACTICE**

No issues were identified beyond the scope of ASTM 1903-11 or the developed scope of work.



#### 4. PHASE II SCOPE OF WORK

Credero performed this Phase II ESA to assess the RECs identified during the Phase I ESA, in accordance with our June 19, 2012 proposal. To execute the Phase II ESA the following tasks were completed:

1. A Site specific Health and Safety Plan was developed for investigatory personnel and the area of investigation was cleared for public utilities by DigSafe.
2. Two (2) soil borings were advanced in the perceived downgradient direction of UST-4 to investigate potential release(s) of petroleum from this tank (REC-1). The two borings were installed due to an initial shallow refusal at bedrock. Soil samples from both of these borings were continuously collected and field screened for volatile organic compounds (VOCs). One representative soil sample was collected from the second boring and analyzed for extractable petroleum hydrocarbons (EPH) at an independent, Maine-certified laboratory.

In addition, one (1) soil boring was advanced in the area of the abandoned-in-place UST-6 and the previously removed UST-3 (REC-1) to assess if releases have occurred from these tanks. Soil samples from this boring were continuously collected and screened for VOCs in the field. One soil sample was collected from this boring and analyzed for EPH at an independent, Maine-certified laboratory.

3. Two (2) soil borings were advanced in the perceived downgradient direction of the two on-Site septic systems (REC-3) to assess the condition of the soil and groundwater in these areas of the Site. Soil samples were continuously collected and screened for VOCs in the field and one soil and one groundwater sample was collected from each boring and analyzed for VOCs, RCRA 8 Metals, and EPH at an independent, Maine-certified laboratory.
4. To assess NC-1, Environmental Safety Professionals, Inc. of Brewer, Maine conducted an asbestos survey to assess materials that were not sampled as a part of a previous Asbestos Hazard Emergency Response Act (AHERA) survey. Forty-three (43) samples (excluding composite or layered samples) of previously unsampled suspect asbestos or materials not included in the original AHERA survey were collected and analyzed at a Maine-certified laboratory.
5. To assess NC-2, Credero inventoried suspect polychlorinated biphenyl (PCB)-containing building materials at the Site and collected 20 representative samples for off-Site PCB analysis at an independent Maine-certified laboratory.



## 5. PHASE II FIELD ACTIVITIES

### 5.1 SOIL BORINGS

On June 28, 2012, Credere oversaw the advancement of five (5) direct push soil borings (CA-01, CA-02, CA-03, CA-04, and CA-04A) at the locations depicted on **Figure 3**. Soil boring activities were performed by CES, Inc. of Brewer, Maine under the direction of Credere. A description of materials encountered during these activities is presented in the soil boring logs which are included in **Appendix C**. Soil borings were completed in accordance with Maine Department of Environmental Protection (ME DEP) Standard Operating Procedure (SOP) DR#006 and standard industry practices.

The rationale for each borings is included below:

- CA-01 was advanced near the perceived footprint of the inactive septic system west of Building 1. This boring was positioned to assess potential impact resulting from former discharges to the septic system. This boring was also incidentally located downgradient of UST-5.
- CA-02 was advanced near the perceived footprint of the active septic system east of Building 10. This boring was positioned to assess potential impact resulting from discharges to the septic system.
- CA-03 was advanced in the perceived downgradient direction of UST-3 (previously removed) and UST-6 (abandoned-in-place). This boring was installed to assess if releases have occurred from the operation of these USTs.
- CA-04 and CA-04A were advanced in the perceived downgradient direction of abandoned in-place UST-4. Please note that two borings were installed due to an initial shallow refusal at bedrock. These borings were installed to assess if releases have occurred from the operation of UST-4.

In general, each soil boring was advanced until refusal or to below the depth of the groundwater table. Throughout soil boring activities, samples were continuously collected in 4-foot intervals. The collected soil samples were logged and visual and/or olfactory evidence of contamination was noted. Samples were then field screened for VOCs with a Thermo Environmental OVM 580B photoionization detector (PID) calibrated to a 100 part per million (ppm) standard and a response factor equal to 1.0 in accordance with ME DEP SOP DR#011.

PID field screening results at the subject property ranged from non-detect to 152 parts per million by volume (ppm<sub>v</sub>). PID field screening results are presented within the soil boring logs in **Appendix C**.



## 5.2 SOIL SAMPLING ACTIVITIES

Following sample logging and field screening, select soil samples obtained from borings CA-01, CA-02, CA-03, and CA-04A were submitted to Absolute Resource Associates, an independent Maine-certified laboratory located in Portsmouth, New Hampshire for further analysis.

Soil samples submitted for laboratory analysis were selected based on PID field screening results, visual and/or olfactory evidence of a release, the release scenario of the potential contaminants of concern, or the relative depth with respect to the groundwater table. Laboratory analyses selected during the performance of this investigation were consistent with the characteristics of the identified RECs. A summary of the soil samples selected for analysis and the corresponding laboratory analyses run on each sample is presented in the table below:

Boring ID	Soil Sample Depth (feet below surface grade)	Laboratory Analyses
CA-01	8-9.2	VOCs by EPA Method 8260
		EPH by the ME DEP Method 04-1.1
		RCRA 8 Metals by EPA Methods 3051A/6010B/7470A
CA-02	4-6	VOCs by EPA Method 8260
		EPH by the ME DEP Method 04-1.1
		RCRA 8 Metals by EPA Methods 3051A/6010B/7470A
CA-03	6-8	EPH by the ME DEP Method 04-1.1
CA-04A	4-5.1	EPH by the ME DEP Method 04-1.1

## 5.3 GROUNDWATER SAMPLING

During the drilling work, Credere directed CES, Inc. to pause drilling operations at CA-01 and CA-02 once the borings were drilled sufficiently into the underlying water table to allow for the collection of groundwater samples to assess if the inactive and active septic systems have impacted groundwater beneath the Site. Groundwater collected during the Phase II ESA was obtained from the pre-cleaned casing used for soil boring installation at each boring location. These temporary groundwater collection points were purged using a peristaltic pump and the discharge was monitored with a turbidity meter. Approximately seven (7) standing volumes of groundwater was removed from the temporary groundwater collection point at CA-01 and approximately six (6) standing well volumes of groundwater were removed from CA-02. In both cases the decision to sample was based on a significant drop in turbidity. Once the groundwater collection point was sufficiently purged, sample bottles were filled by pumping water into the appropriate laboratory glassware. Copies of the groundwater sampling logs are included as **Appendix D**.

Groundwater collected from each temporary sampling point was submitted for laboratory analysis of VOCs, EPH, and dissolved RCRA 8 metals. The dissolved RCRA 8 metals samples were filtered in the field by running the pump discharge through a 0.45 micron filter.



## 5.4 ASBESTOS SURVEY

At the direction of Credere, Environmental Safety Professionals, Inc. (ESP) performed an ACBM survey of the buildings at the Site. The objective of the survey was to verify and update the original 1988 AHERA Survey and subsequent 3-year re-inspections. According to ESP, the survey was conservatively invasive to identify ACBM without causing significant damage to the sampled building materials. ESP's survey was conducted between June 28 and July 12, 2012. A total of 43 samples (excluding composite or layered samples) of suspect ACBM were collected to verify previously sampled materials or materials not included in the original AHERA survey. All sampled materials were analyzed by ESP. ESP is a State of Maine licensed asbestos analytical laboratory. The types of sampled materials included:

- Plaster board and joint compound
- Thermal system insulation
- Cementitious Panels
- 1"x1", 2"x2" and 2"x4" ceiling tile
- 9"x9" and 12"x12" floor tile
- Associated floor tile mastic

For additional information regarding the ACBM survey, a copy of the July 2012 ESP Asbestos Containing Building Materials Survey Assessment report is attached as **Appendix F**.

## 5.5 POTENTIAL PCB-CONTAINING BULK PRODUCT SAMPLING

On June 28, 2012, Credere inventoried suspect PCB-containing bulk products at the Site. Examples included paint, caulking, sealants, grout, mastic, glazing, roofing materials, and insulation. Consistent with this inventory and the results of previous investigations at similar sites, Credere identified 20 potentially PCB-containing bulk products and collected a representative sample of each of these materials. These samples were submitted for laboratory analysis of PCBs. **Figure 5** depicts the locations of the collected suspect PCB-containing bulk product samples.

## 5.6 VISUAL ASSESSMENT OF AST-7

Credere conducted a visual inspection of AST-7 on June 28, 2012, for the purpose of determining if releases have occurred from the tank. Credere was granted access to the tank room and inspected the visible portions of the tank for evidence of releases.



## 6. SUMMARY OF REGULATORY STANDARDS

As a part of this Phase II ESA, Credere collected soil, groundwater, and building material samples to confirm or dismiss the presence of contaminants associated with the RECs identified at the Site. Sample results were compared to applicable state and federal standards and/or guidelines described below.

### 6.1 SOIL

Table 1 of the January 20, 2012 ME DEP Draft Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substances provide cleanup levels for soil conditions which are based on four exposure scenarios: Residential, Park User, Outdoor Commercial Worker, and Excavation / Construction Worker. Pursuant to the provisions of Section III.A of the Draft RAGs, the actions levels presented by the ME DEP do not currently apply to the subject property as the Hampden Academy site is not currently participating in any applicable Maine DEP regulatory programs (Uncontrolled Sites, VRAP, Brownfields, etc.). However, as potential contaminants identified during this investigation may present a significant risk to human health and the environment, the action levels presented in the RAGs were utilized to identify such potential risk.

As the redevelopment of the Site may involve excavation and/or construction, and as the future use of the Site is currently unknown, analytical results were compared to the Residential, Park User, Outdoor Commercial Worker, and Excavation / Construction Worker exposure scenarios presented in Table 1 of the RAGs.

Where RAGs are not established, compounds are considered unregulated. In some cases, a compound's laboratory practical quantification limit (PQL) was above the utilized RAG. In these cases, the laboratory PQL was considered to be the guideline.

### 6.2 GROUNDWATER

As there is currently no remediation guidelines established for groundwater at sites that are served by a public water supply in Maine, the groundwater sample laboratory analytical results were initially compared to the Maine Department of Health and Human Services (DHHS) Maximum Exposure Guidelines (MEGs), which have been incorporated into Table 3 of the RAGs. Where a MEG was not established, compounds are considered unregulated.

### 6.3 ASBESTOS

Asbestos sampling was completed in accordance with Maine DEP Chapter 425: Asbestos Management Regulations. Levels of asbestos greater than or equal to 1% by volume as determined by weight, visual evaluation, and/or point count analysis within representative bulk samples obtained from the Site resulted in the definition of such bulk materials as ACBM.



## 6.4 PCB-CONTAINING BULK PRODUCTS

Building materials that have been analyzed to contain concentrations of total PCBs equal to or in excess of 50 mg/kg are defined as PCB bulk product wastes in accordance with 40 CFR 761.3. These materials are regulated for disposal under 40 CFR 761.62. Building materials that have been analyzed to contain total PCBs at concentrations equal to or greater than 1 mg/kg, but less than 50 mg/kg (and the analyzed concentration is not the result of dilution) are not regulated for disposal as long as they remain in use. However, if these materials are removed from use, such as through demolition, they must be disposed at a facility that is licensed to accept this waste. Building materials that have been analyzed to contain total PCBs at a concentration of less than 1 mg/kg are unrestricted for future use and/or disposal.



## 7. PHASE II RESULTS

The following subsections present the results of the data collected during the field work portion of this Phase II ESA.

### 7.1 SITE GROUNDWATER AND HYDROGEOLOGY

Groundwater in overburden materials at the subject property was observed at depths ranging from approximately 4.5 to 7 feet below existing surface grade. Because monitoring wells were not installed on the Site, groundwater characteristics such as flow direction, hydraulic conductivity, and seepage velocity could not be determined; however, based on area topography and surface water features, groundwater in the vicinity of the subject property is inferred to flow in a generally easterly direction.

### 7.2 SITE GEOLOGY

According to the *Surficial Geologic Map of Maine* and the *Maine Surficial Materials Map*, both published by the State of Maine, the surficial geology at the Site consists of glacial till. Information presented on these maps indicates that between 4 and 25 feet of unconsolidated material is present above bedrock in the area of the Site.

Results of the subsurface investigation revealed that the subsurface of the explored portions of the Site consist of well graded sand materials. Bedrock appears to be present between 5 and 9 feet below ground surface.

### 7.3 SOIL SAMPLE RESULTS

Arsenic was noted in the soil samples collected from CA-01 (8-9.2') and CA-2 (4-6') in excess of the applicable RAGs. However, the concentrations detected do not exceed the established State-wide background concentration. No other exceedances of applicable RAGs were noted in any of the soil sample results. Because detected arsenic concentrations are below the established State-wide background concentration, we believe that these concentrations are not indicative of a release of petroleum or hazardous substances. It is likely that the arsenic detected in soil at the Site is the result of naturally occurring geologic conditions.

Concentrations of several VOCs and EPH analytes were identified at levels that were below the applicable RAGs in sample CA-01 (8-9.2'). Barium, chromium, and lead were also identified at concentrations that were below the applicable RAGs in samples CA-01 (8-9.2') and CA-2 (4-6'). In addition, silver was detected in sample CA-02 (4 to 6') at a concentration that was below the applicable RAGs.

Laboratory analytical results are summarized in **Table 1** and laboratory analytical reports are included in **Appendix E**. The locations of the above-referenced soil borings are depicted on **Figure 3**.



## 7.4 GROUNDWATER SAMPLE RESULTS

No detectable VOCs were noted above the applicable MEGs in the samples collected from CA-01 or CA-02. However, 18 micrograms per liter ( $\mu\text{g/l}$ ) of dissolved lead was detected in the sample collected from CA-02. This concentration is in exceedance of the applicable MEG (10  $\mu\text{g/l}$ ). This dissolved lead concentration is evidence of a release from the active septic system located east of Building 10. No additional detectible concentrations of dissolved RCRA 8 metals were identified in the groundwater samples collected from the Site.

C<sub>9</sub>-C<sub>18</sub> aliphatic range EPH was detected at a concentration that was below the applicable MEG in groundwater collected from CA-02. No additional detectible concentrations of EPH were identified in the groundwater samples collected from the Site.

The detected concentrations dissolved lead and EPH at groundwater sample location CA-02 indicate that petroleum and/or hazardous substances were discharged to the active septic system located east Building 10.

Laboratory analytical results are summarized in **Table 2** and laboratory analytical reports are included in **Appendix E**. The locations of the above-referenced groundwater collection points are depicted on **Figure 4**.

## 7.5 ASBESTOS SURVEY RESULTS

Based on the report furnished by ESP, ACBM was noted in the following locations:

Building Number/Name	ACBM Identified
#1 Science [Wing C]	<ul style="list-style-type: none"> <li>-850 linear feet (lf) pipe cover above ceilings, behind cabinets, in enclosed risers;</li> <li>-3200 square feet (sf) VAT Floor Tile Rms 1, 5, 6 Chemical Storage in Room 2 (remains under fixed cabinets Rms 2, 3, 4);</li> <li>-Transite Fume Hood- including cabinet below Room 5;</li> <li>-Bench Tops, bench shelving and drying racks Rooms 1, 2, 3, 4,5, 6</li> </ul>
<ul style="list-style-type: none"> <li>#2 Social Studies, Computer, Offices [Wing B]</li> </ul>	<ul style="list-style-type: none"> <li>-3800 sf VAT Floor Tile Room 12A, 14, 15A, hallway and under fixed cabinets;</li> <li>-Bench Tops</li> </ul>
<ul style="list-style-type: none"> <li>#3 English, Foreign Language, Learning Center [Wing E]</li> </ul>	<ul style="list-style-type: none"> <li>-8000 sf VAT Floor Tile Throughout (tile under temporary walls in Learning Center and built-ins Rm 27 and elsewhere)</li> <li>-Pipe Cover removed from Room 27 Mechanical Rm and trenches.</li> </ul>
<ul style="list-style-type: none"> <li>#4 English, Math, Photography, Offices [Wing F]</li> </ul>	<ul style="list-style-type: none"> <li>-950 lf Pipe Cover above ceilings, behind cabinets, in enclosed risers;</li> <li>VAT Floor Tile Removed (may remain under built-ins)</li> </ul>
<ul style="list-style-type: none"> <li>#5 Locker Room, Offices</li> </ul>	<ul style="list-style-type: none"> <li>-1,900 sf Transite common wall with Old Gym (double layer, corrugated)</li> </ul>



Building Number/Name	ACBM Identified
	outside, flat inside)
<ul style="list-style-type: none"> <li>#6 Cafeteria, Stage, Kitchen [Wing D]</li> </ul>	<ul style="list-style-type: none"> <li>-Transite east (front) and south walls in Old Gym (more may be hidden behind finished walls);</li> <li>-Transite Walls &amp; Ceilings in kitchen, store room;</li> <li>-Transite soffits in alley over Boiler Room #2;</li> <li>-Boiler Rm2 contains breeching, gaskets, pipe cover, transite walls &amp; double ceilings.</li> </ul>
<ul style="list-style-type: none"> <li>#9 General Classrooms [Old Academy]</li> </ul>	<ul style="list-style-type: none"> <li>-Some exterior window caulking</li> </ul>
<ul style="list-style-type: none"> <li>Roofing</li> </ul>	<p>-All roofing appears to be rubber membrane. In order to verify that no asbestos roofing is below, a professional roofer with the ability to patch and vulcanize the membrane must be on-site. As this requirement was not fulfilled at the time of the survey, no roofing samples were collected.</p>

Please note that a plan showing the locations of the referenced Building Number/Name and additional details regarding the identified ACBM can be found in the July 2012, ESP Asbestos Containing Building Materials Survey Assessment report (**Appendix F**).

## 7.6 POTENTIAL PCB-CONTAINING BULK PRODUCT RESULTS

Results of the PCB bulk product sampling revealed PCB bulk product waste materials are present at the Site. Specifically, medium grey interior floor paint in Building 4 (BM-7), dark grey interior floor paint in Building 6 (BM-01), and light grey interior floor paint in Building 10 (BM-09) are considered to be PCB bulk product waste because sample results indicate that these materials contain PCBs at concentrations that are in excess of 50 parts per million (ppm). In addition, based on analytical results and observed conditions, medium grey floor paint in Building 6 (BM-02) represents PCB bulk product waste. Though the analyzed concentration of PCBs was less than 50 ppm, evidence of potential dilution was noted and until proven otherwise, this sample must be classified as containing PCBs in excess of 50 ppm. **Figure 5** depicts the locations of the collected suspect PCB bulk product samples, **Table 3** summarizes the laboratory results, and a copy of the laboratory report is included in **Appendix E**.

## 7.7 VISUAL ASSESSMENT OF AST-7

The tank was inspected and no visual surficial evidence of a release was noted. Photographs of the tank are included in **Appendix B**.



## 8. DEVIATIONS

No deviations were made from the proposed scope of work during the course of this investigation.



## 9. DATA GAPS

Based on the results of this investigation, no data gaps were identified for the Site.



## 10. CONCLUSIONS

A summary of conclusions pertaining to the identified RECs and other environmental concerns at the subject property as determined through the performance of this Phase II ESA are presented below:

- REC-1 is dismissed because no evidence of soil contamination at levels that exceeded the applicable regulatory guidelines was identified in connection with UST-3, UST-4, or UST-6.
- REC-3 is confirmed because groundwater sampling revealed concentrations of lead in groundwater at levels that exceeded the applicable regulatory guidelines in connection with the septic leach field located east of Building 10.
- Assessment of NC-1 revealed the presence of additional asbestos at the Site that was not previously identified during the AHERA survey.
- Assessment of NC-2 revealed that some painted floors in Building 4, Building 6, and Building 10 meet the definition of PCB bulk product waste and are regulated for proper disposal.



## 11. RECOMMENDATIONS

Based on the findings and conclusions of this Phase II ESA, the following additional work is recommended:

- Credere recommends that REC-2, REC-4, REC-5, and NC-3, which were specifically not assessed as a part of this scope of work, be assessed by conducting additional Phase II ESA work.
- Regarding the presence of lead in groundwater associated with the septic system east of Building 10, Credere recommends that this issue be submitted to the Maine DEP Voluntary Response Action Program (VRAP). Because the Site is in an area where public drinking water is provided, an acceptable method of cleanup for this issue would be a deed restriction to prevent the on-Site use of groundwater for drinking purposes.
- Regarding the identified asbestos containing building materials, Credere recommends that regulated materials be properly abated prior to or during any future redevelopment of the Site.
- Additional PCB sampling is recommended to delineate the extent of PCB bulk product waste in Buildings 4, 6, and 10, and to determine if any associated porous materials in close proximity to the identified PCB bulk product waste have become contaminated.
- The following additional recommendations that were included in the Phase I ESA are carried forward and included here:
  - All small-volume containers (less than 50 gallons each) of petroleum products and/or hazardous substances that will remain in use should be consolidated and properly stored to prevent accidental releases to the environment. All materials that will not be used should be consolidated and properly disposed once removed from service.
  - Depending on the future redevelopment plans for the Site, a lead-based paint survey should be completed to confirm or dismiss the presence, and/or delineate the extent of lead-based paint on or within the Site buildings. In addition, a universal and hazardous waste inventory should be performed and all identified universal and hazardous wastes should be properly disposed prior to or during redevelopment.
  - Product contained in the out-of-service AST-1 and AST-2, which are not in service, should be removed and properly disposed.



## 12. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The following Environmental Professionals performed this Phase II ESA in general conformance with the American Society of Testing Materials (ASTM) E 1903-11 Standard Practice for Phase II ESAs. The following individual(s) meet the qualifications for individuals completing or overseeing all appropriate inquiries, and possess sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the existence of environmental conditions on the property. Any work completed on this ESA by an individual who is not considered an environmental professional was completed under the supervision or responsible charge of the environmental professional.



Jedd Steinglass  
Senior Project Manager



Richard S. Vandenberg, PG  
Senior Project Manager

Reviewed and Approved by:



Rip Patten PE, LSP, LEED AP  
Vice President



### 13. LIMITATIONS

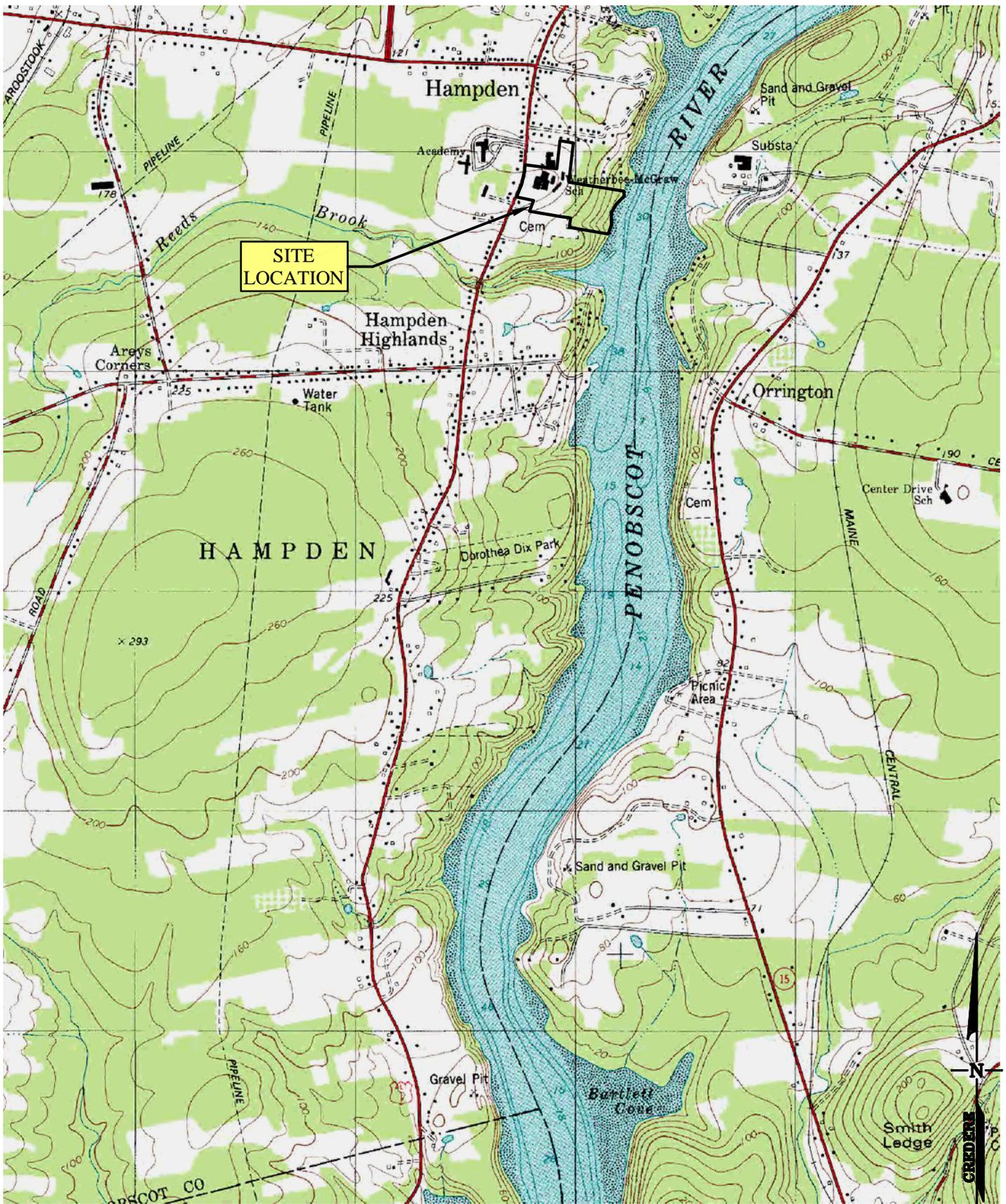
This report has been prepared as part of a contract agreement between Credere Associates, LLC and the Town of Hampden, Maine. This agreement was established in order to provide the Town of Hampden with information upon which it can rely concerning the existence or likely existence of various environmental contaminants on or adjacent to the property evaluated.

This report does not reflect:

1. Conditions in untested areas.
2. Variations in chemical concentrations that can occur between sample locations.
3. The total understanding of potential influences of off-site areas or historical uses that may have contributed or currently contribute to site contamination, particularly relating to groundwater and subsurface soil conditions. The limited evaluation of off-site contamination sources was based on available data and records.
4. The potential presence of compound sources was based on available data and records.
5. The potential presence of analytes that were not analyzed for or that may be present below minimum Practical Quantification Limits for the methods tested.
6. The conditions of groundwater and/or surface water beyond available data.
7. Variation in site conditions that occurred at the time other than that the site inspection was completed.

In the event that any conditions different from those described herein are encountered at a later time, Credere Associates, LLC requests an opportunity to review such differences and modify the assessment and conclusions of this report. This report was prepared expressly for the purpose described. The information in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of this report, without adaptation, shall be at the sole risk and liability of the party undertaking the reuse.





USGS QUADRANGE INFORMATION: HAMPDEN, MAINE 7.5 MINUTE SERIES

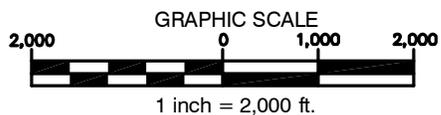
DRAWN BY: SWC DATE: 8/20/12  
 CHECKED BY: JSS/RVJ PROJECT: 12001144

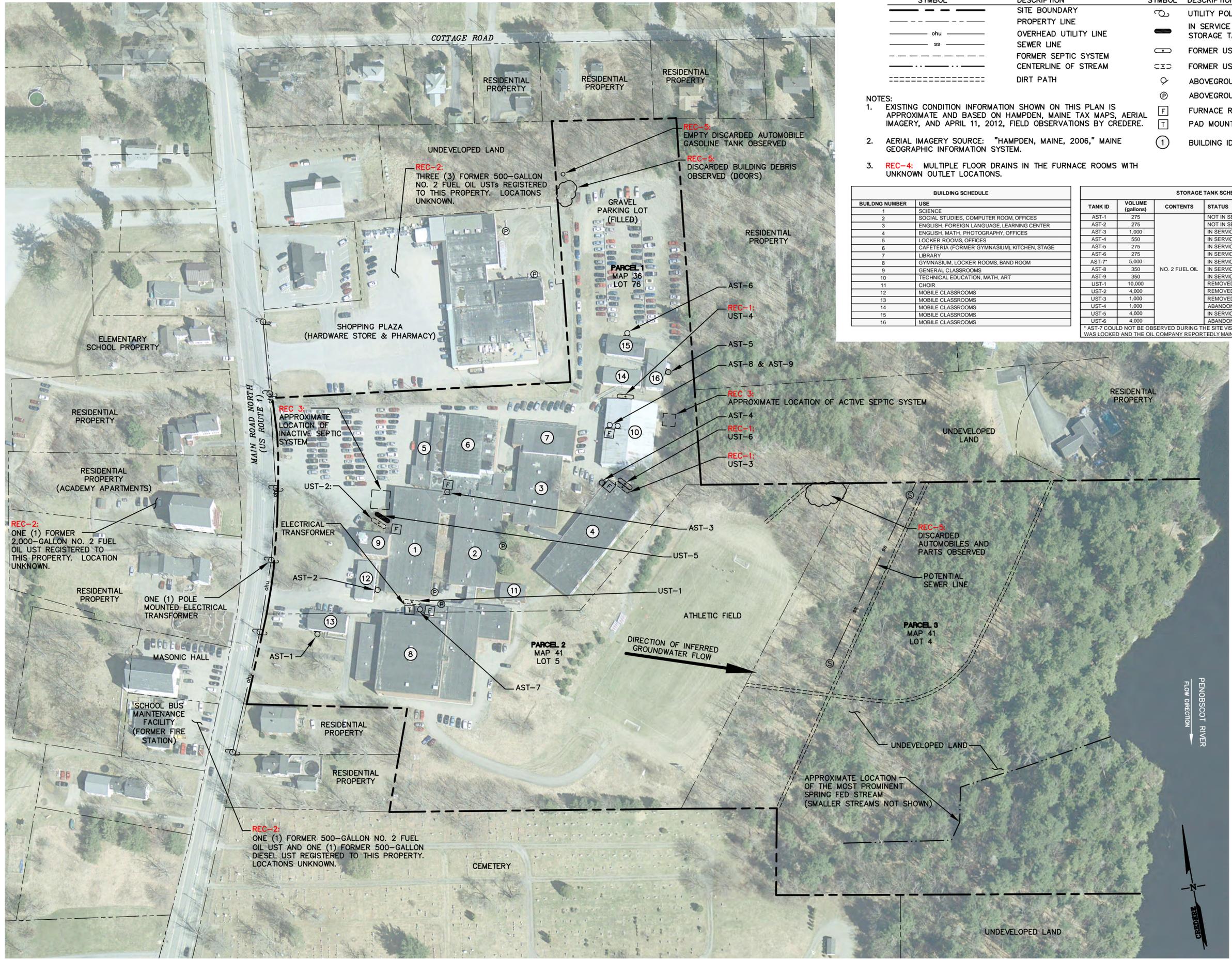
FIGURE 1 - SITE LOCATION MAP



CREDERE ASSOCIATES, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE 04092  
 TEL: 207.828.1272  
 FAX: 207.887.1051  
 WWW.CREDERELLC.COM

HAMPDEN ACADEMY  
 PROPERTY  
 1 MAIN ROAD NORTH  
 HAMPDEN, MAINE





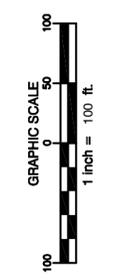
SYMBOL		DESCRIPTION	SYMBOL		DESCRIPTION
[Solid line]		SITE BOUNDARY	[Circle with cross]		UTILITY POLE
[Dashed line]		PROPERTY LINE	[Thick black line]		IN SERVICE UNDERGROUND STORAGE TANK (UST)
[Line with 'ohu']		OVERHEAD UTILITY LINE	[Thin black line]		FORMER UST (ABANDONED-IN-PLACE)
[Line with 'ss']		SEWER LINE	[Dashed line]		FORMER UST (REMOVED)
[Dotted line]		FORMER SEPTIC SYSTEM CENTERLINE OF STREAM	[Circle]		ABOVEGROUND STORAGE TANK (AST)
[Dashed line]		DIRT PATH	[Circle with 'P']		ABOVEGROUND PROPANE TANK
			[Square with 'F']		FURNACE ROOM
			[Square with 'T']		PAD MOUNTED ELECTRICAL TRANSFORMER
			[Circle with number]		BUILDING IDENTIFICATION NUMBER

- NOTES:
- EXISTING CONDITION INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE AND BASED ON HAMPDEN, MAINE TAX MAPS, AERIAL IMAGERY, AND APRIL 11, 2012, FIELD OBSERVATIONS BY CREDERE.
  - AERIAL IMAGERY SOURCE: "HAMPDEN, MAINE, 2006," MAINE GEOGRAPHIC INFORMATION SYSTEM.
  - REC-4: MULTIPLE FLOOR DRAINS IN THE FURNACE ROOMS WITH UNKNOWN OUTLET LOCATIONS.

BUILDING SCHEDULE	
BUILDING NUMBER	USE
1	SCIENCE
2	SOCIAL STUDIES, COMPUTER ROOM, OFFICES
3	ENGLISH, FOREIGN LANGUAGE, LEARNING CENTER
4	ENGLISH, MATH, PHOTOGRAPHY, OFFICES
5	LOCKER ROOMS, OFFICES
6	CAFETERIA (FORMER GYMNASIUM), KITCHEN, STAGE
7	LIBRARY
8	GYMNASIUM, LOCKER ROOMS, BAND ROOM
9	GENERAL CLASSROOMS
10	TECHNICAL EDUCATION, MATH, ART
11	CHOIR
12	MOBILE CLASSROOMS
13	MOBILE CLASSROOMS
14	MOBILE CLASSROOMS
15	MOBILE CLASSROOMS
16	MOBILE CLASSROOMS

STORAGE TANK SCHEDULE			
TANK ID	VOLUME (gallons)	CONTENTS	STATUS
AST-1	275	NO. 2 FUEL OIL	NOT IN SERVICE, PARTIALLY FULL
AST-2	275		NOT IN SERVICE, PARTIALLY FULL
AST-3	1,000		IN SERVICE
AST-4	550		IN SERVICE
AST-5	275		IN SERVICE
AST-6	275		IN SERVICE
AST-7*	5,000		IN SERVICE
AST-8	350		IN SERVICE
AST-9	350		IN SERVICE
UST-1	10,000		REMOVED IN 1998, NO EVIDENCE OF A RELEASE
UST-2	4,000		REMOVED IN 1995, NO EVIDENCE OF A RELEASE
UST-3	1,000		REMOVED AND REPLACED BY UST-6 IN 1987
UST-4	1,000		ABANDONED-IN-PLACE IN 1987
UST-5	4,000		IN SERVICE
UST-6	4,000		ABANDONED-IN-PLACE IN 2010

\* AST-7 COULD NOT BE OBSERVED DURING THE SITE VISIT BECAUSE THE STORAGE ROOM DOOR WAS LOCKED AND THE OIL COMPANY REPORTEDLY MAINTAINS THE ONLY KEY.



**FIGURE 2  
DETAILED SITE PLAN**  
HAMPDEN ACADEMY PROPERTY  
1 MAIN ROAD NORTH  
HAMPDEN, MAINE

DRAWN BY: SWC/WTE DATE: 8/20/12  
 CHECKED BY: JSS/RSY PROJECT: 12001144  
 CREDERE ASSOCIATES, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE 04092  
 TEL: 207.828.1272  
 FAX: 207.887.1051  
 WWW.CREDERELLO.COM

CA-01 (8-27) - JUNE 28, 2012	
ISOPHTHALBENZENE	0.1
PROPYLENE	0.2
TRIMETHYLBENZENE, 1,3,5	0.2
TRIMETHYLBENZENE, 1,2,4	0.4
BUTYLENE SEC	0.5
ALL OTHER VOCs	ND
METHYLNAPHTHALENE, 2	0.2
PHENANTHRENE	0.6
FLUORENE	0.3
C11-C22 AROMATICS	120
C9-C18 ALIPHATICS	220
ALL OTHER EPA ANALYTES	ND
ARSENIC	9.2
BARLIUM	20
CHROMIUM	16
LEAD	17
ALL OTHER RCRA METALS	ND

CA-03 (6-87) - JUNE 28, 2012	
VOCs	ALL ND
EPA	ALL ND
ARSENIC	8.8
BARLIUM	20
CHROMIUM	17
LEAD	36
SILVER	5.3
ALL OTHER RCRA METALS	ND

CA-04 (4-5-17) - JUNE 28, 2012	
VOCs	NS
EPA	ALL ND
RCRA 8 METALS	NS

CA-02 (4-67) - JUNE 28, 2012	
VOCs	ALL ND
EPA	ALL ND
ARSENIC	8.8
BARLIUM	20
CHROMIUM	17
LEAD	36
SILVER	5.3
ALL OTHER RCRA METALS	ND



BUILDING NUMBER	USE
1	OFFICE
2	SOCIAL STUDIES, COMPUTER ROOM, OFFICES
3	ENGLISH, FOREIGN LANGUAGE, LEARNING CENTER
4	ENGLISH, MATH, PHOTOGRAPHY, OFFICES
5	LOCKER ROOMS, OFFICES
6	CATERERIA FORMER GYMNASIUM, KITCHEN, STAGE
7	LIBRARY
8	GYMNASIUM, LOCKER ROOMS, BAND ROOM
9	GENERAL CLASSROOMS
10	GENERAL CLASSROOMS
11	GENERAL CLASSROOMS
12	GENERAL CLASSROOMS
13	MOBILE CLASSROOMS
14	MOBILE CLASSROOMS
15	MOBILE CLASSROOMS
16	MOBILE CLASSROOMS

SYMBOL	DESCRIPTION
○	ABOVEGROUND STORAGE TANK (AST)
⊙	ABOVEGROUND PROPANE TANK
—	SEWER LINE
—	FORMER SEPTIC SYSTEM
—	CENTERLINE OF STREAM
—	DIRT PATH
—	UTILITY POLE
—	IN SERVICE UNDERGROUND STORAGE TANK (UST)
—	FORMER UST (REMOVED)
—	FORMER UST (ABANDONED-IN-PLACE)

TANK ID	VOLUME (gallons)	CONTENTS	STATUS
AST-1	275		NOT IN SERVICE, PARTIALLY FULL
AST-2	275		NOT IN SERVICE, PARTIALLY FULL
AST-3	1,000		IN SERVICE
AST-4	500		IN SERVICE
AST-5	275		IN SERVICE
AST-6	275		IN SERVICE
AST-7	5,000		IN SERVICE
AST-8	350	NO. 2 FUEL OIL	IN SERVICE
AST-9	350		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-1	10,000		REMOVED AND REPLACED BY UST-8 IN 1987
UST-2	4,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-3	1,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-4	1,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-5	4,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-6	4,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-7	4,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE
UST-8	4,000		REMOVED IN 1986, NO EVIDENCE OF A RELEASE

SYMBOL	DESCRIPTION
○	ABOVEGROUND STORAGE TANK (AST)
⊙	ABOVEGROUND PROPANE TANK
—	SEWER LINE
—	FORMER SEPTIC SYSTEM
—	CENTERLINE OF STREAM
—	DIRT PATH
—	UTILITY POLE
—	IN SERVICE UNDERGROUND STORAGE TANK (UST)
—	FORMER UST (REMOVED)
—	FORMER UST (ABANDONED-IN-PLACE)

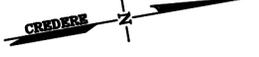
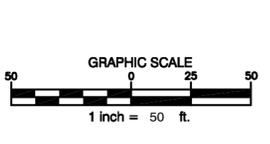
- NOTES:
- EXISTING CONDITION INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE AND BASED ON HAMPTEN, MAINE TAX MAPS, AERIAL IMAGERY, AND APRIL 11, 2012, FIELD OBSERVATIONS BY CREDERE.
  - AERIAL IMAGERY SOURCE: "HAMPTEN, MAINE, 2006," MAINE GEOGRAPHIC INFORMATION SYSTEM.
  - CONCENTRATIONS SHOWN IN mg/kg. CONCENTRATIONS IN ORANGE EXCEED MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MAINE DEP) REMEDIATION GUIDELINES, BUT NOT THE STATEWIDE BACKGROUND CONCENTRATION RANGE.

CREDERE ASSOCIATES, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE 04092  
 TEL: 207.828.1272  
 FAX: 207.887.1051  
 WWW.CREDERELLC.COM

DRAWN BY: SWC/WTE DATE: 8/20/12  
 CHECKED BY: JSS/RSV PROJECT: 12001144

FIGURE 3  
 SOIL SAMPLE LOCATION & RESULTS PLAN

HAMPDEN ACADEMY PROPERTY  
 1 MAIN ROAD NORTH  
 HAMPTEN, MAINE





CA-01 - JUNE 28, 2012	ALL ND
VOCs	ALL ND
EPA	ALL ND
CR6A & METALS	ALL ND

CA-02 - JUNE 28, 2012	ALL ND
VOCs	ALL ND
CR-18 ALPHATICS	120
ALL OTHER EPA ANALYTES	ALL ND
LEAD	18
ALL OTHER CR6A & METALS	ALL ND

- NOTES:
- EXISTING CONDITION INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE AND BASED ON HAMPDEN, MAINE TAX MAPS, AERIAL IMAGERY, AND APRIL 11, 2012, FIELD OBSERVATIONS BY CREDERE.
  - AERIAL IMAGERY SOURCE: "HAMPDEN, MAINE, 2006," MAINE GEOGRAPHIC INFORMATION SYSTEM.
  - CONCENTRATIONS ARE ug/L. CONCENTRATION IN RED EXCEEDED MAINE DEPARTMENT OF HEALTH AND HUMAN SERVICES (MAINE DHHS) MAXIMUM EXPOSURE GUIDELINE.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
○	ABOVEGROUND STORAGE TANK (AST)	○	ABOVEGROUND STORAGE TANK (AST)
⊙	ABOVEGROUND PROPANE TANK	⊙	ABOVEGROUND PROPANE TANK
⊞	FURNACE ROOM	⊞	FURNACE ROOM
⊠	PAD MOUNTED ELECTRICAL TRANSFORMER	⊠	PAD MOUNTED ELECTRICAL TRANSFORMER
③	BUILDING IDENTIFICATION NUMBER	③	BUILDING IDENTIFICATION NUMBER
○	GROUNDWATER SAMPLE POINT	○	GROUNDWATER SAMPLE POINT
○	UTILITY POLE	○	UTILITY POLE
○	IN SERVICE UNDERGROUND STORAGE TANK (UST)	○	IN SERVICE UNDERGROUND STORAGE TANK (UST)
○	FORMER UST (REMOVED)	○	FORMER UST (REMOVED)
○	FORMER UST (ABANDONED-IN-PLACE)	○	FORMER UST (ABANDONED-IN-PLACE)

TANK ID	VOLUME (GALLONS)	CONTENTS	STATUS
AST-1	275		NOT IN SERVICE - PARTIALLY FULL
AST-2	275		NOT IN SERVICE - PARTIALLY FULL
AST-3	1,000		IN SERVICE
AST-4	580		IN SERVICE
AST-5	275		IN SERVICE
AST-6	275		IN SERVICE
AST-7	5,000		IN SERVICE
AST-8	350		IN SERVICE
AST-9	350		IN SERVICE
UST-1	10,000		REMOVED IN 1998. NO EVIDENCE OF A RELEASE
UST-2	4,000		REMOVED AND REPLACED BY UST 6 IN 1987
UST-3	1,000		ABANDONED-IN-PLACE IN 1987
UST-4	1,000		ABANDONED-IN-PLACE IN 1987
UST-5	4,000		ABANDONED-IN-PLACE IN 2010
UST-6	4,000		ABANDONED-IN-PLACE IN 2010

BUILDING NUMBER	USE
1	SCIENCE
2	SOCIAL STUDIES, COMPUTER ROOM OFFICES
3	ENGLISH, FOREIGN LANGUAGE, LEARNING CENTER
4	ENGLISH, MATH, PHOTOGRAPHY OFFICES
5	LOCKER ROOMS, OFFICES
6	CATHERIN FORMER GYMNASIUM, KITCHEN, STAGE
7	BRICK BUILDING, LOCKER ROOMS, BAND ROOM
8	GENERAL CLASSROOMS
9	TECHNICAL EDUCATION, MATH, ART
10	CHOR
11	MOBILE CLASSROOMS
12	MOBILE CLASSROOMS
13	MOBILE CLASSROOMS
14	MOBILE CLASSROOMS
15	MOBILE CLASSROOMS
16	MOBILE CLASSROOMS

NO	RESOURCES CONSERVATION AND RECOVERY ACT (RCRA) 8	EXTRACTABLE PETROLEUM HYDROCARBONS (EPA)	VOLATILE ORGANIC COMPOUNDS (VOC)
18	NONE DETECTED ABOVE LABORATORY PRACTICAL QUANTIFICATION LIMIT		EXCEEDING APPLICABLE MAINE MAXIMUM EXPOSURE GUIDELINE (MEG)

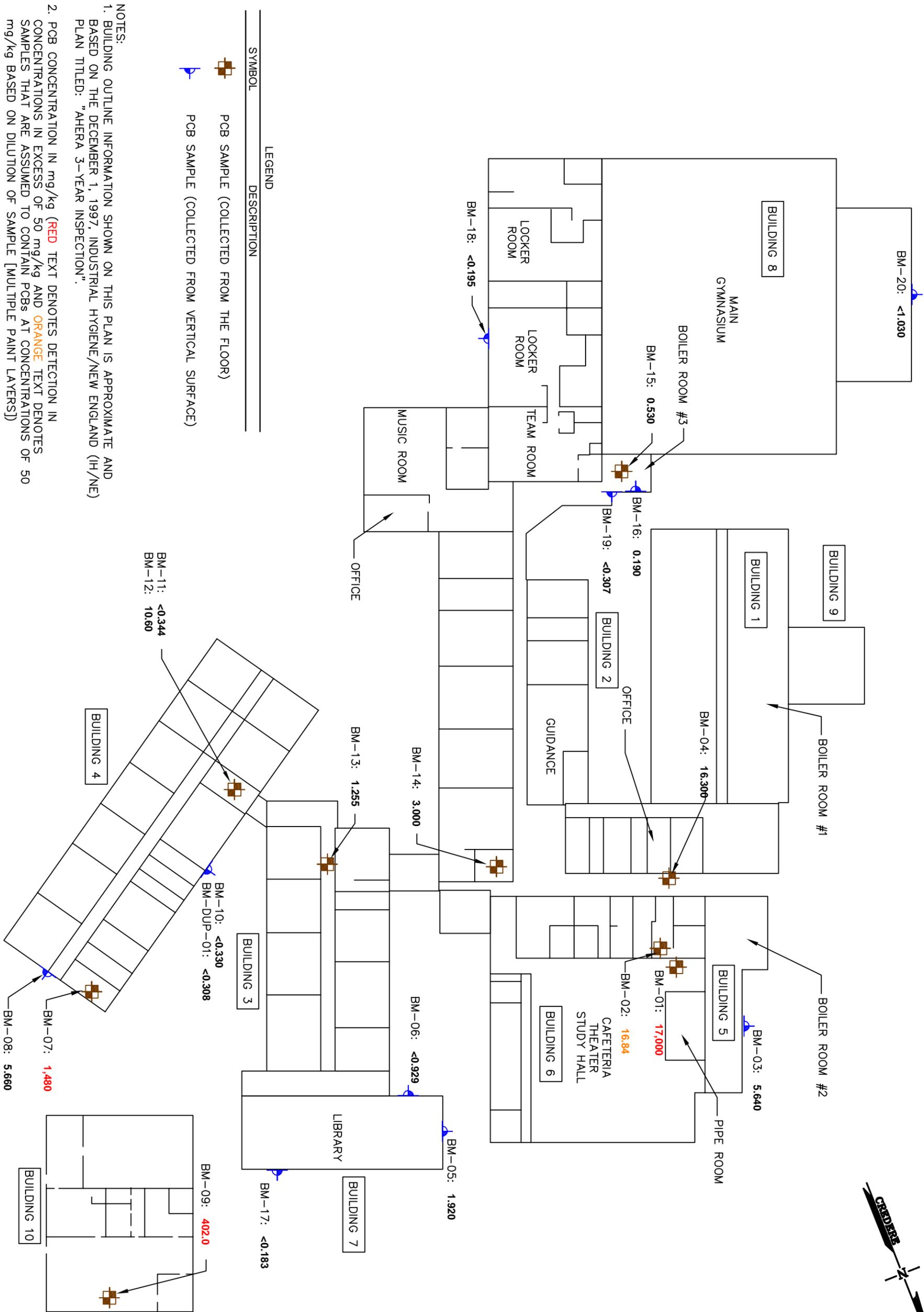
CREDERE ASSOCIATES, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE 04092  
 TEL: 207.828.1272  
 FAX: 207.887.1051  
 WWW.CREDERELLC.COM

**FIGURE 4**  
**GROUNDWATER SAMPLE LOCATION & RESULTS PLAN**

HAMPDEN ACADEMY PROPERTY  
 1 MAIN ROAD NORTH  
 HAMPDEN, MAINE

GRAPHIC SCALE  
 50 0 25 50  
 1 inch = 50 ft.





NOT TO SCALE

DRAWN BY: WTE      DATE: 08/20/2012  
 CHECKED BY: JSS/RSV      PROJECT: 12001144

CREDERE ASSOCIATES, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE 04092  
 TEL: 207.828.1272  
 FAX: 207.887.1051  
 WWW.CREDERELLC.COM

**FIGURE 5**  
**PCB SAMPLE LOCATION & RESULTS PLAN**

HAMPDEN ACADEMY PROPERTY  
 1 MAIN ROAD NORTH  
 HAMPDEN, MAINE

**TABLE 1 - SUMMARY OF ANALYTICAL RESULTS FOR SUBSURFACE SOIL SAMPLES**  
**Hampden Academy Property**  
**1 Main Road North, Hampden, Maine**

Parameter	Regulatory Guideline <sup>(1)</sup>					Subsurface Soil Sample Location, Date, and Depth (feet)			
	Maine DEP Remediation Guidelines				State-Wide Background Concentration Range	CA-01	CA-02	CA-03	CA-04A
	Residential	Park User	Outdoor Commercial Worker	Excavation or Construction Worker		6/28/2012	6/28/2012	6/28/2012	6/28/2012
						8-9.2'	4-6'	6-8'	4-5.1'
<b>Volatile Organic Compounds (mg/kg) EPA Method 8260B**</b>									
Isopropylbenzene	NE	NE	NE	NE	NE	0.1	ND<0.1		
Propylbenzene, n-	NE	NE	NE	NE	NE	0.2	ND<0.1		
Trimethylbenzene, 1,3,5-	NE	NE	NE	NE	NE	0.2	ND<0.1	--	--
Trimethylbenzene, 1,2,4-	NE	NE	NE	NE	NE	0.4	ND<0.1		
Butylbenzene, sec-	NE	NE	NE	NE	NE	0.5	ND<0.1		
<b>Extractable Petroleum Hydrocarbons (mg/kg) MADEP-EPH-04-1.1**</b>									
Methylnaphthalene, 2-	500	830	3,600	600	0.414 - 0.804	0.2	ND<0.1	ND<0.1	ND<0.1
Phenanthrene	3,700	6,200	10,000	8,900	1.608 - 4.064	0.6	ND<0.1	ND<0.1	ND<0.1
Fluorene	5,000	8,300	10,000	10,000	ND - 0.708	0.3	ND<0.1	ND<0.1	ND<0.1
C <sub>11</sub> -C <sub>22</sub> Aromatics	730	1,200	4,500	4,700	NE	120	ND<120	ND<110	ND<120
C <sub>9</sub> -C <sub>18</sub> Aliphatics	2,600	4,400	10,000	7,300	NE	220	ND<120	ND<110	ND<120
<b>RCRA 8 Metals EPA (mg/kg) Method 6010 and 7471</b>									
Arsenic	1.4	2.3	4.2	42	ND - 15	9.2	8.8		
Barium	10,000	10,000	10,000	10,000	ND - 490	20	20		
Cadmium	11	18	94	19	ND	ND<0.2	ND<0.2		
Chromium <sup>(2)</sup>	510	850	5,100	2,800	NE	16	17	--	--
Lead	340	530	1,100	950	NE	17	36		
Mercury	51	85	510	930	NE	ND<0.16	ND<0.18		
Selenium	850	1,400	8,500	1,500	ND - 0.8	ND<2	ND<3		
Silver	850	1,400	8,500	1,500	NE	ND<0.3	5.3		

**NOTES:**

<sup>(1)</sup> Maine DEP Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances (Draft 1/11/12).

<sup>(2)</sup> The RAGs presented for chromium are associated with chromium IV, which are the most conservative of the available chromium oxidation states.

\*\* Only analytes detected are listed

-- = Intentionally not sampled

NE = No regulatory guideline or background concentration established

ND <0.2 = Not detected above quantitation limit (i.e. 0.2 mg/kg)

**Bold** Exceeds laboratory quantitation limit

Exceeds applicable guideline, but not State-wide background

Exceeds applicable guideline, but not State-wide background

**TABLE 2 - SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES  
Hampden Academy Property  
1 Main Road North, Hampden, Maine**

Parameter	Regulatory Guideline <sup>(1)</sup>	Sample Location and Date	
	Maximum Exposure Guideline (MEG)	CA-01	CA-02
		6/28/2012	6/28/2012
<b>Volatile Organic Compounds (µg/L) EPA Method 8260B**</b>			
All analytes	Various	All ND	All ND
<b>Dissolved RCRA 8 Metals (µg/L) EPA Method 6010 and 7471**</b>			
Lead	10	ND<8	<b>18</b>
<b>Extractable Petroleum Hydrocarbons (µg/L) Method EPH-04-1.1**</b>			
C9-C18 Aliphatic Hydrocarbons	700	ND<100	<b>120</b>

**NOTES:**  
<sup>(1)</sup> Maine Department of Health and Human Services (DHHS) Maximum Exposure Guidelines (MEGs) for Drinking Water (Table 3 of the January 20, 2012 Draft Maine DEP RAGs).  
<sup>\*\*</sup> Only analytes quantified above detection limits are summarized on this table.  
 ND<0.2 = Not detected above quantitation limit (i.e. 0.2 mg/L).  
**Highlighted** exceeds MEG  
**Bold** Exceeds laboratory quantitation limit.

**TABLE 3 - SUMMARY OF ANALYTICAL RESULTS FOR PCB BUILDING MATERIAL SAMPLES  
Hampden Academy Property  
1 Main Road North, Hampden, Maine**

Sample ID	Description of Sample	Area	Substrate	Total PCBs <sup>1</sup> (parts per million)	Notes
BM-01	Dark grey interior floor paint	Building 6, near kitchen in cafeteria	Concrete	<b>17,700</b>	Floor paint, mostly below plastic mat
BM-02	Medium grey interior floor paint	Building 6, electrical room adjacent to cafeteria	Concrete	<b>16.84</b>	Thicker, epoxy-like floor paint, multiple layers with dark green below
BM-03	Brown exterior fascia caulking	Building 5, near entrance to cafeteria	Metal, brick	<b>5.640</b>	Between metal roof fascia and adjacent brick
BM-04	White exterior expansion joint caulking	Building 1, outside Assistant Principal's office	Brick	<b>16.30</b>	Expansion joint, fiber backing below
BM-05	Light grey exterior expansion joint caulking	Building 7, outside library	Brick	<b>1.920</b>	Expansion joint, foam backing below
BM-06	Dark grey exterior window caulking	Building 7, outside library	Metal, brick	<0.929	Window caulking
BM-07	Medium grey interior floor paint	Building 4, boiler room	Concrete	<b>1,480</b>	Several layers but sample flexible base material
BM-08	Grey exterior door caulking	Building 4, northeast entrance	Metal, brick	<b>5.660</b>	
BM-09	Light grey interior floor paint	Building 10, shop area	Concrete	<b>402.0</b>	Several layers but sample oldest material
BM-10	Brown exterior window caulking	Building 4, northeast side	Metal, brick	<0.330	Duplicate sample location
BM-11	Black tile mastic	Building 4 near hallway to Building 3	White vapor barrier	<0.344	Below 12X12 Tile
BM-12	White applied vapor barrier	Building 4 near hallway to Building 3	Concrete	<b>10.60</b>	Below 12X12 Tile
BM-13	Black tile mastic	Building 3, south end, adjacent to Classroom 24	Concrete	<b>1.255</b>	Below 9X9 Tile
BM-14	Light grey interior floor paint	Building 2, custodian's office, adjacent to Classroom 10	Concrete	<b>3.000</b>	Three layers: light gray, then red, then dark grey below, could not separate
BM-15	Light grey interior floor paint	Building 8, boiler room	Concrete	<b>0.530</b>	Rubbery
BM-16	Off-white interior wall paint	Building 8, boiler room	CMU	<b>0.190</b>	
BM-17	Grey exterior expansion joint	Building 7, outside library, near northeast corner	Brick	<0.183	
BM-18	Grey exterior window caulking	Building 8, east side	Metal, brick	<0.195	
BM-19	Grey/brown exterior expansion joint	Building 8, near boiler	Brick	<0.307	
BM-20	Grey exterior expansion joint	Building 8, west side	Brick	<1.030	
BM-DUP-01	Brown exterior window caulking	Building 4, northeast side	Metal, brick	<0.308	Duplicate sample location

**NOTES:**

Locations of samples are depicted on Figure 5.

<sup>1</sup> Detectable concentrations in parts per million (ppm) are noted in Bold Black, Red, or Orange text. Red text denotes detections in excess of 50 mg/kg and orange are less than 50 ppm but assumed to contain PCBs at concentrations greater than 50 mg/kg due to potential sample dilution. Concentrations analyzed or assumed to be in excess of 50 mg/kg are considered PCB bulk product waste.

Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North, Hampden, Maine  
August 14, 2012

---

**APPENDIX A**  
**SCOPE OF WORK**





# CREDERE ASSOCIATES, LLC

776 Main Street  
Westbrook, Maine 04092  
Phone: 207-828-1272  
Fax: 207-887-1051

June 19, 2012  
P1-12-08

Mr. Dean Bennett  
Director of Community and Economic Development  
Town of Hampden  
106 Western Avenue  
Hampden, Maine 04444

*Via E-mail: economicdevelopment@hampdenmaine.gov*

**Subject: Proposal to Conduct Phase II Environmental Site Assessment  
Hampden Academy, 1 Main Road North, Hampden, Maine**

Dear Mr. Bennett:

Credere Associates, LLC (Credere) is pleased to submit this proposal to conduct a Phase II Environmental Site Assessment (ESA) for the Hampden Academy Site, which is located at 1 Main Road North in Hampden, Maine (the Site). The Site is improved with eleven permanent buildings, some with construction dates back to 1843. The Site contains 23 acres of land abutting the Penobscot River and is currently used as a high school. It is our understanding the Town of Hampden has a purchase and sale agreement to acquire the Site from MSAD 22.

A Phase I ESA report was completed by Credere for the Site dated May 15, 2012. This report was completed in accordance with the ASTM International (ASTM) Standard Practice E 1527-05 and the Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries (AAI); Final Rule (40 CFR Part 312) for Phase I ESAs.

Five (5) recognized environmental conditions (RECs) and three (3) non-scope considerations (NCs) were identified during this Phase I ESA. The RECs are associated with onsite and offsite underground storage tanks, sanitary septic systems, floor drains in the furnace rooms, and discarded automobiles and building debris. The NCs are associated with asbestos, lead paint, polychlorinated biphenyls (PCBs), and universal and hazardous wastes. Additional investigation is needed to confirm or dismiss these RECs and NCs, as discussed below.

## **Phase II Investigation Approach**

Based on the above, the following Phase II ESA activities are proposed to confirm or dismiss each REC/NC.

### Environmental Concern

REC-1: Former use of USTs 3, 4 and 6

### Approach for Confirming or Dismissing Concern

Install two soil borings adjacent to the location of UST-3 and 6 (same location) and UST-4 which have all been abandoned in place at the Site. One soil sample will be collected from each boring, and analyzed each sample for extractable petroleum

	hydrocarbons (EPH).
REC-2: Former use of upgradient offsite USTs	Not included in this scope of work.
REC-3: Two onsite septic systems	Install two soil borings downgradient of each septic system, collect one soil and one groundwater sample from each boring and analyze each sample for volatile organic compounds (VOCs), RCRA 8 metals, and EPH.
REC-4: Presence of floor drains	Not included in the Scope of work. To be conducted by the Town.
REC-5: Discarded automobile, gas tank and building debris	Not included in the scope of work
NC-1: Asbestos	Conduct asbestos survey, including roofing and other inaccessible materials that were not assessed as part of the previous AHERA asbestos survey. We assume up to 140 asbestos samples will be collected for independent lab analysis.
NC-2: Lead based paint and PCBs	Up to 30 suspect PCB containing building materials samples will be collected and analyzed for PCBs. Lead based paint screening is not included in this scope of work.
NC-3: Universal and Hazardous Waste Survey	This task should be completed after the building has been vacated. Therefore it is not included in this scope of work.
Additional Task: Inspection of AST-7	During completion of the above scope, Credere will inspect AST-7 which could not be assessed during our Phase I ESA site visit due to access issues.

### **Scope of Work**

Please note that the tasks described below can be authorized individually by the Town of Hampden. Though the proposed scope of work is required to dismiss the RECs and NCs identified during the previous Phase I ESA, certain components can be excluded at your request to best meet the goals of the development.

- Task 1. Premark for Dig Safe/Project Coordination: Prior to executing any subsurface field investigations, the Site will be marked for Dig Safe clearance. ***We have assumed that the Town of Hampden will mark the Site the Dig Safe clearance***; however, Credere will notify Dig Safe and other appropriate agencies. In addition, Credere will coordinate the execution of the project with the driller, analytical labs and internal Credere employees.
- Task 2. Soil and Groundwater Sampling: Credere will contract with a Geoprobe driller and oversee the advancement of up to four deep soil borings and the collection and independent laboratory analysis of soil and groundwater samples as described above.
- Task 3. Confirm Floor Drains/Inspect AST-7: **The Town will conduct additional research regarding the discharge location of the floor drains. If additional research does not confirm the discharge location, then dye testing of each floor drain will be conducted by the Town.** If it is determined that the floor drains discharge to separate dry wells, then additional investigation will be warranted to confirm or dismiss environmental impacts of petroleum and/or hazardous materials that may



have been discharged through these floor drains (not in this scope of work). In addition, AST-7 will be inspected for visual/surficial evidence of a release during our drilling activities.

Task 4. Asbestos Survey: Credere will coordinate and oversee the survey of the Site building for asbestos containing materials by a Maine DEP-licensed asbestos inspector to supplement the existing AHERA asbestos survey. The proposed scope includes the collection of an estimated 140 samples, which is consistent with the age, size, and configuration of the Site buildings. However, the actual number of samples will be determined at the time of sample collection. The cost of the survey is based on the labor and equipment for one 8-hour day using two licensed asbestos inspectors. ***We assume that the Town of Hampden will provide a lift truck for our inspector to access and sample the roofing materials.***

Task 5. Asbestos Analysis: Credere will contract the independent laboratory analysis of the collected asbestos samples. The cost for this task is based on the analysis of 140 samples, which is a conservative but appropriate estimate for the Site. If greater than 140 samples are required, the Town of Hampden will be notified prior to sample collection. Final asbestos analytical costs will be billed on a per sample basis.

Please also note that the cost for this task has been influenced by several new regulatory requirements that were promulgated on April 3, 2011, in Maine DEP Chapter 425: Asbestos Management Regulations. These changes mandate that all samples reported with an asbestos content of less than 10% using the standard methods must go through additional more costly analysis, unless that sample is assumed to be positive. In addition, samples of non-friable organically bound materials (NOB), including but not limited to floor tiles, asphalt shingles, caulking, glazing, mastics, coatings, sealants, adhesives and glues must now be analyzed using the PLM NOB-EPA 600/R-93/116 with gravimetric preparation method, which adds additional cost. Every effort will be made to minimize analytical costs within the constraints of the regulatory requirements.

Task 6. Lead-Based Paint Determination: Not in scope of work.

Task 7. PCBs in Building Materials Survey: Credere will survey the Site building and conduct the collection and independent laboratory analysis of up to 30 samples of potential PCB bulk product waste. Based on the age and prior use of the Site, as well as previous experience at analogous facilities, there is a potential that certain building materials may constitute a PCB bulk product waste and therefore be regulated for disposal under 40 CFR 761.62. Credere will exclude the areas of the Site that were constructed following the 1978 ban on the distribution of PCBs in commerce.

Task 8. Reporting Soil & Groundwater Sampling: Credere will prepare a Phase II ESA report detailing the results, findings, conclusions and recommendations of the above Tasks 1 and 2. This report will be delivered in PDF electronic format.

Task 9. Reporting Hazardous Building Materials: Credere will prepare a Hazardous Building Materials report detailing the results, findings, conclusions and recommendations of the above Tasks 3, 4, 5, and 7. This report will be delivered in PDF electronic format.

The estimated labor and material costs required to complete the above tasks are summarized below in **Table 1**.



Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North, Hampden, Maine  
August 14, 2012

---

**APPENDIX B**  
**PHOTOGRAPHS**



Phase II Environmental Assessment – Hampden Academy  
1 Main Street North, Hampden, Maine



View of the end and side of AST-7

1



View of the side of UST-7

2

Phase II Environmental Assessment – Hampden Academy  
1 Main Street North, Hampden, Maine



View of the concrete floor under AST-7

3



View of a plastic lined sump in the concrete floor  
adjacent to AST-7

4

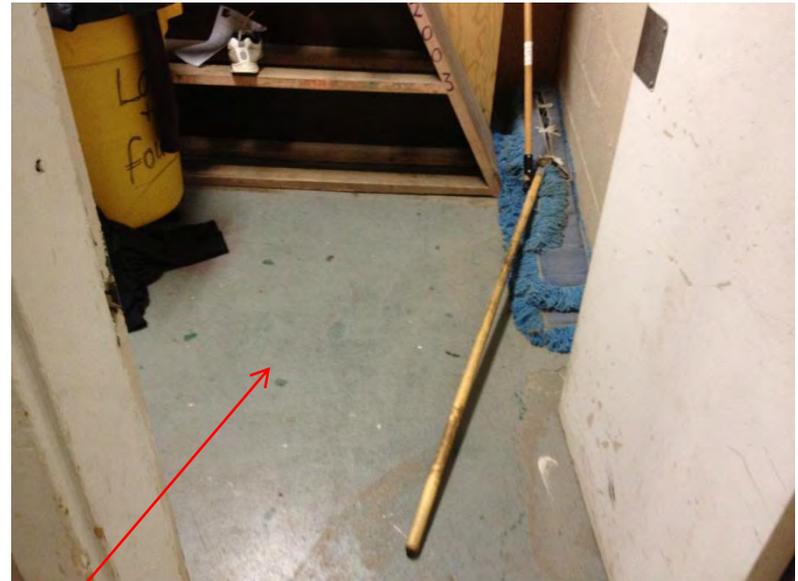
# Phase II Environmental Assessment – Hampden Academy 1 Main Street North, Hampden, Maine

BM-1 (dark grey interior floor paint under plastic wear guard)



View of Floor in Building 6 near Cafeteria

5



View of floor in Electrical Room in Building 6 near Cafeteria

6

BM-2 (Medium Gray Floor Paint)

Phase II Environmental Assessment – Hampden Academy  
1 Main Street North, Hampden, Maine

BM-7 (Medium Gray Floor Paint)



View of the floor in boiler room in Building 4

Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North, Hampden, Maine  
August 14, 2012

---

**APPENDIX C**  
**SOIL BORING LOGS**



## Geologic Log

 <p style="text-align: center;">Crederre Associates, LLC 776 Main Street Westbrook, Maine 04092</p>		<b>SITE INFORMATION</b>			<b>WELL SPECIFICATIONS</b>		
		<b>Project Number/Client:</b> 12001144/Hampden Academy Site			<b>Well Depth (feet) from TOC:</b> None Installed		
<b>Site Location:</b> 1 Main Road North, Hampden, Maine			<b>Screen Length (feet):</b> None Installed				
<b>Maine DEP ID:</b> None		<b>Date Start/Finish:</b> June 28, 2012		<b>TOW Elevation:</b> None Installed		<b>Ground Elevation:</b> NM	
<b>Crederre, LLC Representative:</b> Jonathan O'Donnell				<b>Well Material:</b> None Installed			
<b>CONTRACTOR</b>				<b>DRILLING EQUIPMENT</b>			
<b>Drilling Contractor:</b> CES Inc.				<b>Equipment:</b> Geoprobe 2" Direct Push			
<b>Foreman:</b> Brad Sloat				<b>Casing Diameter:</b> None Installed			
<b>Drilling Method:</b> Direct Push				<b>Casing Material:</b> None Installed			

# CA-01

Depth	Sample Information					Soil Description and Classification	Strata	USCS Code	Equipment Installed	Depth
	Sample No.	Pen/Rec (In.)	Depth (Ft.)	Blows (/0.5')	PID (ppm) (RF=1.0)					
0							Paving		None.	0
1	S-1		0-2	n/a	1.7	6" Asphalt Paving and Subgrade (excluded) 18" fine to coarse SAND, brown, dry, no odor				1
2		13/48								2
3	S-2		2-4	n/a	ND	Same as above				3
4						12" Same as above	Well Graded Sand	SW	▼	4
5	S-3		4-6	n/a	ND	12" fine to medium SAND, red, wet at approx. 5 feet bgs, no odor			—	5
6		32/48								6
7	S-4		6-8	n/a	96	12" Same as above 12" fine to medium SAND, gray, wet, no odor				7
8	S-5	12/14	8-9.2*	n/a	152	11" Same as above 3" weathered bedrock, dark gray, wet, slight petroleum odor	Bedrock			8
9	Refusal and End of Exploration at 9.2 feet bgs.									9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18

**Remarks:**  
 Soils described using "Modified Burmister Method"  
 TOW Elevation - Elevation of Top of Well PVC Slotted Pipe and Riser, approximate  
 NM - Not Measured  
 NS - No sample for interval ;  
 \*Sample submitted for laboratory analysis.  
 Graphically shows depth of the water table as inferred from field observations.

Page **1 of 1**

**Boring No: CA-01**

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

## Geologic Log

 <p style="text-align: center;">Crederes Associates, LLC 776 Main Street Westbrook, Maine 04092</p>		<b>SITE INFORMATION</b>		<b>WELL SPECIFICATIONS</b>						
		<b>Project Number/Client:</b> 12001144/Hampden Academy Site		<b>Well Depth (feet) from TOC:</b> None Installed						
CA-02		<b>Site Location:</b> 1 Main Road North, Hampden, Maine		<b>Screen Length (feet):</b> None Installed						
		<b>Maine DEP ID:</b> None	<b>Date Start/Finish:</b> June 28, 2012	<b>TOW Elevation:</b> None Installed	<b>Ground Elevation:</b> NM					
		<b>Crederes, LLC Representative:</b> Jonathan O'Donnell		<b>Well Material:</b> None Installed						
		<b>CONTRACTOR</b>		<b>DRILLING EQUIPMENT</b>						
		<b>Drilling Contractor:</b> CES Inc.		<b>Equipment:</b> Geoprobe 2" Direct Push						
		<b>Foreman:</b> Brad Sloat		<b>Casing Diameter:</b> None Installed						
		<b>Drilling Method:</b> Direct Push		<b>Casing Material:</b> None Installed						
<b>Sample Information</b>										
<b>Depth</b>	<b>Sample No.</b>	<b>Pen/Rec (In.)</b>	<b>Depth (Ft.)</b>	<b>Blows (/0.5')</b>	<b>PID (ppm) (RF=1.0)</b>	<b>Soil Description and Classification</b>	<b>Strata</b>	<b>USCS Code</b>	<b>Equipment Installed</b>	<b>Depth</b>
0										0
1	S-1	28/48	0-2	n/a	ND	Medium to coarse SAND, and Gravel, brown, moist, no odor	Well Graded Sand	SW	None.  	1
2										2
3	S-2	2-4	n/a	ND	Same as above	3				
4						4				
5	S-3	12/48	4-6*	n/a	ND	12" Same as above 12" Medium to coarse SAND, and Gravel, brown/gray mottle, wet, no odor	5			
6							6			
7	S-4	6-8	n/a	ND	Same as above	7				
8						8				
9	S-5	24/48	8-10	n/a	ND	Medium SAND, brown/gray lenses, wet, no odor	Poorly Graded Sand	SP		9
10										10
11	S-6		10-12	n/a	ND	Same as above				11
12	End of exploration and sampling discontinued at 12'									12
13										13
14										14
15										15
16										16
17										17
18										18
<p><b>Remarks:</b> Soils described using "Modified Burmister Method" TOW Elevation - Elevation of Top of Well PVC Slotted Pipe and Riser, approximate NM - Not Measured NS - No sample for interval ; *Sample submitted for laboratory analysis.  Graphically shows depth of the water table as inferred from field observations.</p>										
						Page		1 of 1		
Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.										
						<b>Boring No:</b>		<b>CA-02</b>		

## Geologic Log

 <p style="text-align: center;">Credere Associates, LLC 776 Main Street Westbrook, Maine 04092</p>	<b>SITE INFORMATION</b>		<b>WELL SPECIFICATIONS</b>	
	<b>Project Number/Client:</b> 12001144/Hampden Academy Site		<b>Well Depth (feet) from TOC:</b> None Installed	
<b>Site Location:</b> 1 Main Road North, Hampden, Maine		<b>Screen Length (feet):</b> None Installed		
<b>Maine DEP ID:</b> None <b>Date Start/Finish:</b> June 28, 2012		<b>TOW Elevation:</b> None Installed	<b>Ground Elevation:</b> NM	
<b>Credere, LLC Representative:</b> Jonathan O'Donnell		<b>Well Material:</b> None Installed		
<b>CONTRACTOR</b>		<b>DRILLING EQUIPMENT</b>		
<b>Drilling Contractor:</b> CES Inc.		<b>Equipment:</b> Geoprobe 2" Direct Push		
<b>Foreman:</b> Brad Sloat		<b>Casing Diameter:</b> None Installed		
<b>Drilling Method:</b> Direct Push		<b>Casing Material:</b> None Installed		



Depth	Sample Information					Soil Description and Classification	Strata	USCS Code	Equipment Installed	Depth
	Sample No.	Pen/Rec (In.)	Depth (Ft.)	Blows (/0.5')	PID (ppm) (RF=L/D)					
0						3" Asphalt (excluded)	Paving		None.	0
1	S-1	36/48	0-2	n/a	5.2	21" Fine to coarse SAND and Gravel, brown, no odor	Well Graded Sand	SW		1
2						Same as above				2
3	S-2	2-4	n/a	1.8	4					
4					8" Same as above 16" medium SAND, brown, moist, no odor	Poorly Graded Sand	SP	4		
5	S-3	4-6	n/a	0.6				5		
6		38/48	6-8*	n/a	ND	Same as above but wet at approx. 7 feet bgs, no odor	Well Graded Sand	SW		6
7	S-4									8-10
8					Fine to medium SAND, brown, wet, no odor	Well Graded Sand	SW	8		
9	S-5	8-10	n/a	ND				9		
10		48/48	10-12	n/a	ND	Same as above	Well Graded Sand	SW		10
11	S-6								11	
12	End of exploration and sampling discontinued at 12'									12
13										13
14										14
15										15
16										16
17										17
18										18

**Remarks:**

Soils described using "Modified Burmister Method"  
 TOW Elevation - Elevation of Top of Well PVC Slotted Pipe and Riser, approximate  
 NM - Not Measured  
 NS - No sample for interval ;  
 \*Sample submitted for laboratory analysis.  
 Graphically shows depth of the water table as inferred from field observations.

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

## Geologic Log

 <p style="text-align: center;">Creder Associates, LLC 776 Main Street Westbrook, Maine 04092</p>		<b>SITE INFORMATION</b>		<b>WELL SPECIFICATIONS</b>						
		<b>Project Number/Client:</b> 12001144/Hampden Academy Site		<b>Well Depth (feet) from TOC:</b> None Installed						
CA-04		<b>Site Location:</b> 1 Main Road North, Hampden, Maine		<b>Screen Length (feet):</b> None Installed						
		<b>Maine DEP ID:</b> None	<b>Date Start/Finish:</b> June 28, 2012	<b>TOW Elevation:</b> None Installed	<b>Ground Elevation:</b> NM					
		<b>Creder, LLC Representative:</b> Jonathan O'Donnell		<b>Well Material:</b> None Installed						
		<b>CONTRACTOR</b>		<b>DRILLING EQUIPMENT</b>						
		<b>Drilling Contractor:</b> CES Inc.		<b>Equipment:</b> Geoprobe 2" Direct Push						
		<b>Foreman:</b> Brad Sloat		<b>Casing Diameter:</b> None Installed						
		<b>Drilling Method:</b> Direct Push		<b>Casing Material:</b> None Installed						
<b>Sample Information</b>		<b>Soil Description and Classification</b>		<b>Strata</b>	<b>USCS Code</b>	<b>Equipment Installed</b>		<b>Depth</b>		
<b>Depth</b>	<b>Sample No.</b>					<b>Pen/Rec (In.)</b>	<b>Depth (Ft.)</b>		<b>Blows (/0.5')</b>	<b>PID (ppm) (RF=1.0)</b>
0			0-2	n/a	ND	Medium to coarse SAND and Gravel, red/brown, dry, no odor	Well Graded Sand	SW	None.	0
1	S-1									1
2		24/48								2
3	S-2		2-4	n/a	ND					3
4						Same as above but wet at approx. 6 feet bgs, no odor	Well Graded Sand	SW	None.	4
5	S-3		4-6	n/a	ND					5
6		25/38								6
7	S-4		6-7.1	n/a	ND					7
						12" Same as above 2" weathered bedrock, dark gray, wet, no odor	Bedrock			7
<b>Refusal and End of Exploration at 7.1 feet bgs.</b>										
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
<p><b>Remarks:</b> Soils described using "Modified Burmister Method" TOW Elevation - Elevation of Top of Well PVC Slotted Pipe and Riser, approximate NM - Not Measured NS - No sample for interval ; *Sample submitted for laboratory analysis.   Graphically shows depth of the water table as inferred from field observations.</p>										
						Page	1 of 1			
Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.										
						<b>Boring No: CA-04</b>				

## Geologic Log

 <p style="text-align: center;">Crede Associates, LLC 776 Main Street Westbrook, Maine 04092</p>		<b>SITE INFORMATION</b>		<b>WELL SPECIFICATIONS</b>	
		<b>Project Number/Client:</b> 12001144/Hampden Academy Site		<b>Well Depth (feet) from TOC:</b> None Installed	
CA-04A		<b>Site Location:</b> 1 Main Road North, Hampden, Maine		<b>Screen Length (feet):</b> None Installed	
		<b>Maine DEP ID:</b> None	<b>Date Start/Finish:</b> June 28, 2012	<b>TOW Elevation:</b> None Installed	<b>Ground Elevation:</b> NM
		<b>Crede, LLC Representative:</b> Jonathan O'Donnell		<b>Well Material:</b> None Installed	
		<b>CONTRACTOR</b>		<b>DRILLING EQUIPMENT</b>	
		<b>Drilling Contractor:</b> CES Inc.		<b>Equipment:</b> Geoprobe 2" Direct Push	
		<b>Foreman:</b> Brad Sloat		<b>Casing Diameter:</b> None Installed	
		<b>Drilling Method:</b> Direct Push		<b>Casing Material:</b> None Installed	

Depth	Sample Information					Soil Description and Classification	Strata	USCS Code	Equipment Installed	Depth
	Sample No.	Pen/Rec (In.)	Depth (Ft.)	Blows (/0.5')	PID (ppm) (RF=1.0)					
0										0
1	S-1		0-2	n/a	ND	Medium to coarse SAND and Gravel, brown, dry, no odor	Well Graded Sand	SW	None.	1
2		24/48				Same as above				2
3	S-2		2-4	n/a	ND					3
4	S-3	14/14	4-5.1	n/a	ND	6" Same as above 6" Medium SAND, brown, wet, no odor 2" weathered bedrock, dark gray, wet, no odor				SP
5						Bedrock				5
Refusal and End of Exploration at 5.1 feet bgs.										
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19

**Remarks:**  
 Soils described using "Modified Burmister Method"  
 TOW Elevation - Elevation of Top of Well PVC Slotted Pipe and Riser, approximate  
 NM - Not Measured  
 NS - No sample for interval ;  
 \*Sample submitted for laboratory analysis.  
 ▼ Graphically shows depth of the water table as inferred from field observations.

Page 1 of 1

Boring No: CA-04A

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North, Hampden, Maine  
August 14, 2012

---

**APPENDIX D**  
**GROUNDWATER SAMPLING LOGS**



**WELL PURGE SAMPLING LOG  
CREDERE ASSOCIATES**

PROJECT NAME: HAMPDEN ACADEMY  
 PROJECT NUMBER: 12001144  
 SAMPLE LOCATION ID: CA-01

DATE: 06/28/12  
 LOCATION ACTIVITY  
 START: 0800  
 END: 0920

**WELL DATA:**

CASING STICK-UP N/A FT  MEASURED  TOP OF WELL WATER LEVEL EQUIPMENT USED:  
 HISTORICAL  TOP OF CASING  ELECT. COND. PROBE  
 CASING/WELL DIFF. N/A FT  FROM GRADE  FLOAT ACTIVATED PROBE  
 \_\_\_\_\_  PRESSURE TRANSDUCER  
 \_\_\_\_\_  
 WELL DEPTH 9.2 FT  0.04 GAL/FT (1" DIAM.)  
 WATER DEPTH 5.0 FT  0.16 GAL/FT (2" DIAM.) 0.072 GAL/VOL  
 0.65 GAL/FT (4" DIAM.)  
 HEIGHT OF WATER COLUMN 4.2 FT X  1.47 GAL/FT (6" DIAM.) = 5 GAL PURGED  
 \_\_\_\_\_ GAL/FT (\_\_\_\_" DIAM.) = \_\_\_\_\_

WELL MATERIAL: WELL PROTECTIVE CASING CONCRETE COLLAR  
 PVC LOCKED: SECURE: INTACT: AMBIENT AIR VOC: N/A PPM  
 SS  YES  YES  YES  YES  
 temp from casing  NO  NO  NO WELL MOUTH VOC: N/A PPM

**EQUIPMENT DATA:**

PURGING SAMPLING		METER ID	DECONTAMINATION FLUIDS USED:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	PERISTALTIC PUMP <input type="checkbox"/> pH _____	<input type="checkbox"/> ETHYL ALCOHOL
<input type="checkbox"/>	<input type="checkbox"/>	SUBMERSIBLE PUMP <input type="checkbox"/> Specific Conductivity _____	<input type="checkbox"/> DEIONIZED WATER
<input type="checkbox"/>	<input type="checkbox"/>	AIR LIFT PUMP <input type="checkbox"/> Dissolved Oxygen _____	<input type="checkbox"/> TSP SOLUTION
<input type="checkbox"/>	<input type="checkbox"/>	HAND PUMP <input type="checkbox"/> ORP _____	<input type="checkbox"/> HEXANE
<input type="checkbox"/>	<input type="checkbox"/>	BAILER <input checked="" type="checkbox"/> Turbidity <u>LaBette 2000</u>	<input type="checkbox"/> POTABLE WATER
<input type="checkbox"/>	<input type="checkbox"/>	DISPOSABLE BAILER <input type="checkbox"/>	<input type="checkbox"/> NONE
<input type="checkbox"/>	<input type="checkbox"/>	PVC/SILICON TUBING <input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	TEFLON TUBING <input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	FILTER (metals)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>LINE TUBING</u>	<input type="checkbox"/>

**FIELD ANALYSIS DATA:**

PURGE DATA: @ 1 GAL @ 2 GAL @ 3 GAL @ 4 GAL @ 5 GAL

TEMPERATURE (degrees C)	_____	_____	_____	_____	_____
pH (standard units)	_____	_____	_____	_____	_____
SPEC. CONDUCTIVITY (mS)	_____	_____	_____	_____	_____
OXIDATION-REDUCTION (+/- mv)	_____	_____	_____	_____	_____
DISSOLVED OXYGEN (ppm)	_____	_____	_____	_____	_____
TURBIDITY	<u>192</u>	<u>145</u>	<u>72</u>	<u>45</u>	<u>16</u>

FIELD DATA SAMPLE OBSERVATIONS:  CLEAR  COLORED  RUSTY  \_\_\_\_\_  
 IN CONTAINER  TURBID  CLOUDY  ODOR  \_\_\_\_\_

**SAMPLE DATA:**

SAMPLE BOTTLE ID	PRESERVATION METHOD	SAMPLE CONTAINER #	LABORATORY ANALYSIS
<u>CA-01</u>	<u>HCl</u>	<u>1</u>	<u>EPH</u>
<u>CA-01</u>	<u>HCl</u>	<u>2</u>	<u>VOCS</u>
<u>CA-01</u>	<u>HNO3</u>	<u>1</u>	<u>RLPA 8 Metals</u>

NOTES: Purged until 3 vol. min. reached and turbidity acceptable

JBO  
SAMPLER

**WELL PURGE SAMPLING LOG  
CREDERE ASSOCIATES**

PROJECT NAME: HAMPDEN ACADEMY  
 PROJECT NUMBER: 12001144  
 SAMPLE LOCATION ID: CA-02

DATE: 6, 28, 12  
 LOCATION ACTIVITY  
 START: 0930  
 END: 1100

**WELL DATA:**

CASING STICK-UP N/A FT [ ] MEASURED [ ] TOP OF WELL WATER LEVEL EQUIPMENT USED:  
 [ ] HISTORICAL [ ] TOP OF CASING [ ] ELECT. COND. PROBE  
 CASING/WELL DIFF. N/A FT [ ] FROM GRADE [ ] FLOAT ACTIVATED PROBE  
 [ ] \_\_\_\_\_ [ ] PRESSURE TRANSDUCER  
 WELL DEPTH 120 FT [ ] \_\_\_\_\_ [ ] \_\_\_\_\_  
 WATER DEPTH 5.0 FT [ ] 0.04 GAL/FT (1" DIAM.)  
 [x] 0.16 GAL/FT (2" DIAM.) 1.12 GAL/VOL  
 [ ] 0.65 GAL/FT (4" DIAM.)  
 HEIGHT OF WATER COLUMN 7.0 FT X [ ] 1.47 GAL/FT (6" DIAM.) = 7 GAL PURGED  
 [ ] \_\_\_\_\_ GAL/FT (\_\_\_\_" DIAM.)

WELL MATERIAL: WELL PROTECTIVE CASING CONCRETE COLLAR  
 [ ] PVC LOCKED: SECURE: INTACT: AMBIENT AIR VOC: N/A PPM  
 [ ] SS [ ] YES [ ] YES [ ] YES  
 [x] <sup>temp from</sup> <sub>geoprobe casing</sub> [x] NO [x] NO [x] NO WELL MOUTH VOC: N/A PPM

**EQUIPMENT DATA:**

PURGING SAMPLING METER ID DECONTAMINATION FLUIDS USED:  
 [x] [x] PERISTALTIC PUMP [ ] pH \_\_\_\_\_ [ ] ETHYL ALCOHOL  
 [ ] [ ] SUBMERSIBLE PUMP [ ] Specific Conductivity \_\_\_\_\_ [ ] DEIONIZED WATER  
 [ ] [ ] AIR LIFT PUMP [ ] Dissolved Oxygen \_\_\_\_\_ [ ] TSP SOLUTION  
 [ ] [ ] HAND PUMP [ ] ORP \_\_\_\_\_ [ ] HEXANE  
 [ ] [ ] BAILER [x] Turbidity lanote 2020 [ ] POTABLE WATER  
 [ ] [ ] DISPOSABLE BAILER [ ] \_\_\_\_\_ [ ] NONE  
 [ ] [ ] PVC/SILICON TUBING [ ] \_\_\_\_\_  
 [ ] [ ] TEFLON TUBING [ ] \_\_\_\_\_  
 [x] [x] FILTER <sup>metals</sup> LDPE tubing

**FIELD ANALYSIS DATA:**

PURGE DATA: @ 1 GAL @ 3 GAL @ 5 GAL @ 6 GAL @ 7 GAL  
 TEMPERATURE (degrees C) \_\_\_\_\_  
 pH (standard units) \_\_\_\_\_  
 SPEC. CONDUCTIVITY (ms) \_\_\_\_\_  
 OXIDATION-REDUCTION (+/- mv) \_\_\_\_\_  
 DISSOLVED OXYGEN (ppm) \_\_\_\_\_  
 TURBIDITY 212 151 85 45 11  
 FIELD DATA SAMPLE COLLECTED: [ ] IN-LINE [x] IN CONTAINER  
 OBSERVATIONS: [ ] CLEAR [ ] COLORED [ ] RUSTY [ ] \_\_\_\_\_  
 [ ] TURBID [ ] CLOUDY [ ] ODOR [ ] \_\_\_\_\_

**SAMPLE DATA:**

SAMPLE BOTTLE ID	PRESERVATION METHOD	SAMPLE CONTAINER #	TYPE	LABORATORY ANALYSIS
<u>CA-02</u>	<u>HCl</u>	<u>1</u>	<u>Amber</u>	<u>EPH</u>
<u>CA-02</u>	<u>HCl</u>	<u>2</u>	<u>VOA</u>	<u>VOCs</u>
<u>CA-02</u>	<u>ANO3</u>	<u>1</u>	<u>LDPE</u>	<u>BCRA 8 Metals</u>

**NOTES:**

*[Signature]*  
 SAMPLER

Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North, Hampden, Maine  
August 14, 2012

---

**APPENDIX E**  
**LABORATORY ANALYTICAL RESULTS**



From: (207) 756-2319  
Jedd Steinglass  
Credera Associates, LLC  
776 Main Street

Origin ID: SFMA



J12201205300325

Westbrook, ME 04092

Ship Date: 05JUL12  
ActWgt: 15.0 LB  
CAD: 3209656/NET3300

Dims: 12 X 9 X 8 IN

SB52311  
JB

SHIP TO: (413) 789-9018  
**Sample Receiving  
Spectrum Analytical  
11 Almgren Drive**

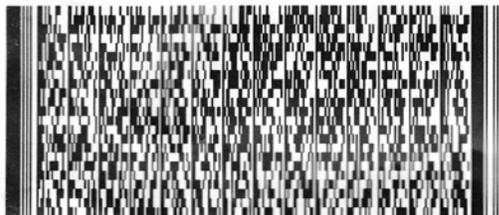
**BILL THIRD PARTY**

**Agawam, MA 01001**

Delivery Address Bar Code



Ref # 12001144 Hampden  
Invoice #  
PO #  
Dept #



**FRI - 06 JUL A2  
STANDARD OVERNIGHT**

TRK# 7985 8734 7066  
0201

**00 EHTA**

**01001  
MA-US  
BDL**



515G1/E052/AA44

After  
printing  
this  
label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal

Phase II Environmental Site Assessment  
Hampden Academy  
1 Main Road North, Hampden, Maine  
August 14, 2012

---

**APPENDIX F**  
**ASBESTOS SURVEY REPORT**





## ENVIRONMENTAL SAFETY PROFESSIONALS

21 Sylvan Drive, Brewer, ME 04412  
(207) 989-6848

# Asbestos Containing Building Materials Survey Assessment

Former Hampden Academy Site  
Hampden, Maine  
2012

for  
Credeire Associates LLC

Prepared by:

Environmental Safety Professionals  
July 2012

Mark Morehouse, CIH, CSP AI-0133  
Chris Atwood, AS, CSP, OSHT AI-0132

The enclosed report was created solely for the use of the Client in its hazard communication and demolition planning and no warranty or guarantee, expressed or implied, is made that such report is complete, full, or appropriate for construction or remediation purposes. This document is intended solely for the use of the Client and creates no rights, expressed or implied, to the benefit of any other person. Any person or entity outside the Client's control who relies on this report for any reason whatsoever, does so at his/her sole risk and expense. Further this document is intended to be used by personnel trained and experienced in the asbestos and lead hazard abatement field and the entire document is intended to be use as a whole. No part of this report is intended as a stand-alone item and each section, appendix or subpart should be use in conjunction with the full body of information.

# TABLE OF CONTENTS

<b>Section</b>	<b>Contents</b>
1.0	EXECUTIVE SUMMARY
1.1	Table 1.1 Summary of Finding
1.2	Inspection Procedure
2.0	ASBESTOS-CONTAINING MATERIALS
2.1	Regulatory Background
2.1.1	Federal Regulations
	AHERA
	NESHAP
	OSHA
2.1.2	State Regulations
	DEP
	BLR
2.2	Survey Strategy and Analytical Methods
2.2.1	Bulk Sampling Protocol
2.2.2	Sample Collection and Analytical Procedures
2.3	Survey Accessibility and Limitations
3.0	SUMMARY OF ASBESTOS RESULTS
3.1	Non-Asbestos Containing Building Materials
3.2	Asbestos Containing Building Materials
3.3	Survey Work Sheets and Assessment Forms (54 pages)
	ACBM Survey Description of Recommendations and Material Condition Codes

<b>Section</b>	<b>Contents</b>
3.3.1	#1 Science
3.3.2	#2 Social Studies, Computer, Offices
3.3.3	# 3 English, Foreign Language, Learning Center
3.3.4	#4 English, Math, Photography, Offices
3.3.5	#5 Locker Room, Offices
3.3.6	#6 Cafeteria, Stage, Kitchen
3.3.7	#7 Library
3.3.8	#8 Gymnasium, Locker Rooms, Band Room
3.3.9	#9 General Classrooms
3.3.10	#10 Technical Education, Math
3.3.11	#11 Choir
3.3.12	#12 Mobile Classroom
3.3.13	#13 Mobile Classroom
3.3.14	#14 Mobile Classroom
3.3.15	#15 Mobile Classroom
3.3.16	#16 Mobile Classroom
3.3.17	Roofing

## **LIST OF APPENDICES**

Appendix A; Definitions

Appendix B; Asbestos Bulk Sample Summary Report

Appendix C; Documentation of Qualifications

## 1.0 Executive Summary

Environmental Safety Professionals (**ESP**) is providing environmental support to Credere Associates LLC and their Client by performing an Asbestos-Containing Building Material (ACBM) of the Hampden Academy and associated properties.

The objective of this survey was to verify and update the original 1988 AHERA Survey and subsequent 3-year re-inspections by reviewing the AHERA documents and proceeding to locate, assess and quantify, to the extent possible, all ACBM within the former Hampden Academy and associated properties that may be impacted by future demolition or renovations activities. The survey was a conservatively invasive survey in that every attempt was made to identify all ACBM short of causing damage that was not easily repaired. Several items were identified that were not included in the AHERA documents including several thousand square feet of transite wall and ceiling systems and nearly 1000 linear feet of pipe insulation. The inspection of the facility was performed between June 28 and July 12, 2012.

The Hampden Academy and associated properties consists of approximately 9 interconnected and 7 separate buildings with different histories and construction styles. The building complex is primarily steel reinforced wood, brick and/or concrete structures with brick exterior. Five of the out buildings are temporary classrooms. All the buildings, except the Old Academy, have flat or EPDM (rubber) membrane roofs. Only the Old Academy Building has a sub-grade foundation space. Several of the buildings have mechanical system trenches.

This survey report includes a building description, analytical methods and limitations, summary of findings, and recommendations and cost estimates for all identified ACBM at the facility.

All accessible interior suspect building materials at the Hampden Academy and associated properties were sampled and analyzed for asbestos content. A total of **43 samples** (excluding composite or layered samples) were collected of suspect ACBM to verify previously sampled materials or materials not included in the original AHERA Survey including the following materials:

- Plaster Board and Joint Compound
- Thermal System Insulation
- Cementitious Panels
- 1x1, 2x2 & 2x4 Ceiling Tile
- 9x9 and 12x12 Floor Tile
- Associated Floor Tile Mastic

Asbestos containing materials such as valve packing, pipe gaskets, rope gaskets and chinking may be present inside valves, steam and water pipes, and boiler interiors. Univent heaters are present in most classrooms and offices. These units often have some type of asbestos paper or mat between the unit and the wall that is inaccessible without taking the unit out. A cursory inspection of several types of these unit in the Hampden complex was inconclusive.

The Old Gym/Cafeteria has interior/exterior wall systems visible in several areas. Additional transit wall systems in this building may be present behind wall finish systems.

The Hampden Academy designated the various buildings in the complex by building name and number as well as individual room number. An older alphanumeric designation by wing is included in the table below\*. The following numbers correspond to the appropriate building names or use designations and will be used throughout the report. Asbestos was identified as follows in each facility:

**1.1 Table 1.1 Summary of Finding**

Bldg No / Name	ACM
#1 Science *Wing C	850 lf Pipe Cover above ceilings, behind cabinets, in enclosed risers; 3200 sf VAT Floor Tile Rms 1, 5, 6 Chem Storage in Rm 2 (remains under fixed cabinets Rms 2, 3, 4); Transite Fume Hood- including cabinet below Room 5; Bench Tops, bench shelving and drying racks Rooms 1, 2, 3, 4, 5, 6
#2 Social Studies, Computer, Offices *Wing B	3800 sf VAT Floor Tile Room 12A, 14, 15A, hallway and under fixed cabinets; Bench Tops
# 3 English, Foreign Language, Learning Center *Wing E	8000 sf VAT Floor Tile Throughout (tile under temporary walls in Learning Center and built-ins Rm 27 and elsewhere) Pipe Cover removed from Room 27 Mechanical Rm and trenches Pipe Fitting Insulation – non-asbestos
#4 English, Math, Photography, Offices *Wing F	950 lf Pipe Cover above ceilings, behind cabinets, in enclosed risers; VAT Floor Tile Removed (may remain under built-ins)
#5 Locker Room, Offices	1,900 sf Transite common wall with Old Gym (double layer, corrugated outside, flat inside)

Bldg No / Name	ACM
#6 Cafeteria, Stage, Kitchen *Wing D	Transite East (front) and South Walls in Old Gym (more may be hidden behind finished walls); Transite Walls & Ceilings in kitchen, store room; Transite soffits in alley over Boiler Room #2; Boiler Rm2 contains breaching, gaskets, pipe cover, transite walls & double ceilings
#7 Library	None Found
#8 Gymnasium, Locker Rooms, Band Room *Wing A	None Found
#9 General Classrooms *Old Academy	Some exterior window caulking
#10 Technical Education, Math	None Found
#11 Choir	None Found
#12 Mobile Classroom	None Found
#13 Mobile Classroom	None Found
#14 Mobile Classroom	None Found
#15 Mobile Classroom	None Found
#16 Mobile Classroom	None Found
Roofing	All roofing appears to be rubber membrane. In order to verify that no asbestos roofing is below, a professional roofer with the ability to patch and vulcanize the membrane must be on-site

## 1.2 Inspection Procedure

A thorough investigation of all accessible interior and exterior components has been performed at the Hampden Academy and associated properties to identify all suspect ACBM by licensed and experienced inspectors. A survey of this type can

be expected to identify 95% or better of all ACM. **ESP** offers unparalleled experience in the broad fields of industrial hygiene and environmental health. Our inspection team leaders for this survey included:

- *Mark Morehouse, BS, CIH, CSP.* With over 25 years experience including some of the earliest surveys at UMO; participation in the State-wide AHERA program; Phase 3 of the US Postal Service Northeastern Area Asbestos and Lead-Based Paint Inspections involving hundreds of builds throughout the State; and hundreds of inspections of industrial facilities, hospitals, commercial and residential building.
- *Chris Atwood, CSP, OHST,* has nearly 15 years experience with asbestos surveys in industrial facilities, commercial, school and residential building. Mr. Atwood has experience with CAD Drawing and computer program development. Chris is Board Certified in occupational safety.

ESP identified several instances where asbestos containing materials were in poor condition and represented a significant risk or potential risk and a recommendation of immediate removal. These areas including:

1. Rooms 32 and 35 have exposed and severally damaged air-cell type pipe insulation above the univent heat units.

For any instances of asbestos or lead containing materials that will be left in place, a written operations and maintenance program should be developed to address the safe daily aspects of living and working around asbestos containing materials.

## 2.0 ASBESTOS-CONTAINING BUILDING MATERIALS

The term “asbestos” describes six naturally occurring fibrous silicate minerals found in certain types of rock formations. Of that general group, the minerals *chrysotile*, *amosite* and *crocidolite* have been most commonly used in building products. However, *anthophyllite*, *tremolite*, and *actinolite* are also found in many facilities. When mined and processed, asbestos is typically separated into very thin fibers. When these fibers are present in the air they are usually invisible to the naked eye. During processing asbestos fibers are commonly mixed with a material which binds them together so that they can be used in many different products. The means by which the asbestos is bound together determines whether the material is considered to be *friable* or *non friable*. Friability pertains to the capacity of a material to release fibers. The more friable a material is, the easier it can be crumbled and turned to dust. Non friable materials generally release few fibers unless deteriorated or abraded. Because asbestos fibers are so small and light, they may remain in the air for many hours after they are released from ACM and it is the airborne fibers that create the greatest potential hazard for building occupants.

Asbestos became a popular commercial product because it is strong, doesn't burn, resists corrosion, and insulates well. In the United States, it's commercial use began in the early 1900's and peaked in the period from World War II into the 1970's. Under the Clean Air Act of 1970, the EPA has been regulating many asbestos containing materials, which by definition, contain more than 1 percent asbestos. The Occupational Safety and Health Administration's (OSHA) asbestos construction standard (29 CFR 1926.1101) specifies labeling materials that contain more than 1 percent asbestos. In the mid-1970's several major kinds of asbestos materials, such as spray applied insulation, fireproofing, and acoustical surfacing material, were banned by the EPA because of growing concern about the health effects, particularly cancer, associated with exposure to such materials.

Asbestos fibers can cause serious health problems. If inhaled, they can cause diseases which disrupt the normal functioning of the lungs. Three specific diseases—*asbestosis* (a fibrous scarring of the lung), *lung cancer*, and *mesothelioma* (a cancer of the lining of the chest or abdominal cavity)—have been linked to asbestos exposure. *These diseases do not develop immediately after inhalation of asbestos fibers; it may be 10-40 years before symptoms appear.*

In general, the more asbestos fibers a person inhales, the greater the risk of developing an asbestos-related disease. Most of the cases of severe health problems resulting from asbestos exposure have been experienced by workers who held jobs in industries such as shipbuilding, mining, milling, and fabricating, where they were exposed to very high levels of asbestos in the air, without the benefit of the worker protections now afforded by law. These employees worked directly with asbestos materials on a regular basis and, generally, for long periods of time as part of their jobs.

Many of these same workers were also smokers and smoking significantly exacerbates the health hazards of asbestos. Studies indicate that unprotected, non-smoking asbestos workers incur a cancer rate approximately five times higher than the general population. Smokers who worked with asbestos under similar circumstances incur a cancer rate approximately fifty times higher than the general population. This can partially be explained by the negative effects that cigarette smoke has on the human body's defense mechanisms especially the mucus membranes with hair-like ciliated cells that attempt to trap and expel the fibers. Cigarette smoke can paralyze these cells and allow a greater percentage of asbestos fibers to remain in the respiratory system.

### **Identification of Hazardous Asbestos**

Intact and undisturbed asbestos materials do not pose a health risk. The mere presence of asbestos in a building does not mean that the health of building occupants are endangered. ACM that is in good condition and is not somehow damaged or disturbed, is not likely to release asbestos fibers into the air. When ACM is properly managed, release of asbestos fibers into the air is prevented or minimized, and the risk of asbestos related disease can be reduced to a negligible level.

Asbestos materials can become hazardous when, due to damage, disturbance, or deterioration over time, they release fibers into the building air. Under these conditions elevated airborne asbestos concentrations can create a potential hazard for workers and other building occupants. Currently, OSHA has established a permissible exposure limit of 0.10 fibers per cubic centimeter of air (abbreviated f/cc) averaged over an eight-hour day. The EPA-recommended safe level of exposure is 0.01 f/cc. *However, exposure to asbestos fibers at any level does not guarantee that workers will contract asbestos-related diseases.*

## **2.1 Regulatory Background**

### **2.1.1 Federal Regulations**

The United States Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and delegated states are responsible for regulating environmental exposure and protecting workers from asbestos exposure. OSHA is responsible for the health and safety of workers who may be exposed to asbestos in connection with their jobs (Occupational Exposure to Asbestos; Title 29, Code of Federal Regulations (CFR) Parts 1910.1001, 1915.1001, and 1926.1101). The EPA and state regulators are responsible for developing and enforcing regulations necessary to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health.

In 1979, EPA began an asbestos technical assistance program for building owners, environmental groups, contractors, and industry. In May 1982, EPA issued the first regulation intended to control asbestos in schools under the authority of the Toxic Substances Control Act (TSCA); this regulation is known as the Asbestos-in-School Rule.

Two EPA regulations govern asbestos: the Asbestos Hazard Emergency Response Act (AHERA) and the National Emission Standards for Hazardous Air Pollutants (NESHAP).

#### **AHERA**

In 1986, Congress enacted AHERA (Title 40, CFR Part 763) which mandated a regulatory program to address the asbestos hazards in schools. A part of AHERA deals with the mandatory training and accreditation of persons who perform certain types of asbestos related work in schools. Subsequently, in 1990, Congress amended AHERA to extend some of the training and accreditation requirements to persons performing such work in public and commercial buildings.

AHERA requires inspections of school buildings to determine the conditions of ACM and preparation of management plans which recommend the best way to reduce the asbestos hazards. The State of Maine has adopted many of the requirements of AHERA for surveys performed at facilities in the State. The methods may include removal, encapsulation, enclosure, repair, and operations and maintenance to protect human health and the environment from ACM.

## **NESHAP**

The Clean Air Act (CAA) of 1970 required EPA to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health; therefore, EPA promulgated NESHAP (Title 40, CFR Part 61) on April 6, 1973.

NESHAP is intended to minimize the release of asbestos fibers during certain activities (i.e., renovations, demolition, and installations). It specifies work practices to be followed during renovations of buildings (except apartment buildings that have no more than four dwelling units) which contain a specific amount of friable asbestos. NESHAP requires that buildings be inspected for ACBM prior to renovation/demolition projects.

NESHAP also requires owners and operators subject to the asbestos rules to notify delegated state and local agencies and/or the regional EPA offices before demolition or renovation activities begin. In addition, NESHAP requires the removal of all friable ACBM prior to demolition.

## **OSHA**

OSHA began regulating workplace asbestos exposure in 1970, adopting a permissible exposure limit (PEL) to regulate worker exposure. The original asbestos standard has been revised several times to better protect workers. On August 10, 1994, OSHA issued a revised final standard regulating asbestos exposure in all industries. The newly revised standard for the construction industry lowers the PEL. The revised standard also establishes a new classification system for asbestos construction work, which clearly spells out mandatory work practices to follow to reduce worker exposures (See Occupational Exposure to Asbestos, Title 29, CFR 1926.1101).

### **2.1.2 State Regulations**

Adopted State regulations are similar to the Federal regulations. In many instances State asbestos regulations are more stringent, therefore, it is recommended that all applicable, relevant and appropriate state regulations be reviewed before the start of any renovation/demolition projects.

## **DEP (Department of Environmental Protection)**

The State of Maine asbestos regulations include requirements for licensing and certification of personnel who will perform asbestos-related work activities. All personnel who engage in asbestos-related activities must comply with the state licensing/certification requirements as well as with all Federal requirements. Department of Environmental Protection Chapter 425, Asbestos Management Regulations (1 January 1994).

## **2.2 Survey Strategy and Analytical Methods**

### **2.2.1 Bulk Sampling Protocol**

EPA and OSHA define ACM as any material which contains greater than 1 percent asbestos. The ACM inspection and bulk sampling was performed in accordance with the methods outlined in the EPA guidance document titled Guidance for Controlling Asbestos-Containing Materials in Buildings (Document No. 560/5 85/024). In addition, bulk sampling of asbestos was performed in accordance with 40 CFR Part 763, AHERA requirements for number of samples and types of ACM to be sampled. According to these requirements, materials are classified as either surfacing (e.g., ceiling plaster, wall plaster, spray-applied fireproofing and acoustical materials), thermal system insulation (e.g., pipe insulation, pipe fitting insulation, boiler insulation), or miscellaneous materials (e.g., floor tile, ceiling tile, wallboard). The number of samples collected from each material varies based on the classification of the material and increases as the potential for a non-uniform mixture of asbestos in the material increases.

Asbestos bulk samples must be collected in a statistically random manner as follows:

a. Surfacing Material:

- i. At least three bulk samples from each homogeneous area\* that is 1000 square feet or less.
- ii. At least five bulk samples from each homogeneous area that is greater than 1000 square feet but less than 5000 square feet.
- iii. At least seven bulk samples from each homogeneous area that is greater than 5000 square feet.

b. Thermal System Insulation (TSI):

- i. At least three bulk samples from each homogeneous area.
- ii. At least one sample from each homogeneous area of patched thermal system insulation if the patched area is less than six linear or square feet.

c. Miscellaneous ACM:

- i. Samples as set forth in Surfacing or TSI above as applicable.
- ii. At least one sample if the amount of the miscellaneous material is less than six square or linear feet.

The sampling requirements above may be waived by assuming the suspect material to be asbestos-containing. If the material is assumed to be asbestos, it must be labeled and treated as asbestos until sampling by an Asbestos Inspector proves that the material is non-asbestos.

\*Homogeneous area is variously define in the asbestos regulations as a functional space or room were individuals can carry out undefined functions or as a system or material (eg. pipe insulation, floor tile, wall plaster) which is identical throughout the homogeneous area. For purposes of sample collection, we use the latter definition and correlate the samples to other materials which are the same throughout the facility.

### **2.2.2 Sample Collection / Analytical Procedures**

Samples for asbestos analysis were collected by EPA certified and State licensed inspectors. Proper safety measures such as wetting the material prior to sampling, cleaning up the area by wet-wiping any resulting residual debris, and wearing proper personal protective equipment, were employed. Coring tools and knives were utilized to be certain of sampling the entire thickness of a material. Materials such as floor tile and associated mastic were collected as composite samples and each layer was analyzed separately as appropriate. All samples were placed in appropriately labeled airtight containers for shipment to the laboratory for analysis.

All asbestos bulk samples collected were analyzed by Environmental Safety Professionals, a State Licensed Asbestos analytical laboratory. A percentage of

these samples were also analyzed by another licensed laboratory, IATL as a quality assurance. This laboratory has been accredited by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) to perform asbestos bulk sample analysis. All bulk samples were analyzed for asbestos content using Polarized Light Microscopy (PLM) with Dispersion Staining (EPA Method 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Building Materials). Asbestos-containing materials are defined as suspect materials which have at least one sample containing an asbestos content of more than 1 percent from a homogeneous area set of samples. Bulk samples from a homogeneous area must be found to contain 1 percent or less of asbestos to be classified as non-asbestos-containing.

### **2.3 Survey Limitations**

All accessible areas within the facility were inspected for ACBM, including areas above suspended ceilings. This method has limitation of scale. No attempt was made to access spaces which would result in significant damage to the structural integrity of building components or create safety concerns and a bore scope investigation is limited in the extent to which it is capable of evaluating a space.

No attempt was made to quantify non-asbestos pipe covering such as fiberglass and other non-ACM that has been found in the building. The material is mentioned in the report to show that it has been assessed and found to be non-ACM. Some asbestos materials identified in the AHERA documents have been removed since 1988.

Because of the limitations of PLM analysis with non-friable organically bound (NOB) materials such as floor tile, it is possible that asbestos fibers could be present in floor tile samples, which initially tested negative for asbestos content. For this reason, it is recommended that a representative number of floor tile and other NOB material samples which initially tested negative for asbestos, be further analyzed by TEM analysis to determine if asbestos is present in the material. This has not been completed and is pending at this time

The interiors of the various standing boilers were not accessible due to safety considerations at this time. The #2 Boiler in Building 6 is known to contain asbestos gaskets. The various other boilers may contain gaskets, chinking, fire bricks and other materials that contain asbestos.

A through survey of this type done in accordance with all relevant, applicable and appropriate standards and exercising the degree of care and skill ordinarily exercised by a duly qualified or certified Consultant performing the same or similar services at the same time in the same geographic area can be expected to identify 95% or better of all ACM.

### **3.0 SUMMARY OF FINDINGS**

All accessible areas within the Facility were inspected using EPA and Maine DEP required protocols.

#### **3.1 Non-Asbestos-Containing Building Materials**

The following materials were not sampled (per EPA) because they are not considered suspect asbestos-containing materials:

- Brick materials (except bricks found within boilers)
- Ceramic tiles
- Cinderblock and marble
- Fiberglass insulating materials (yellow and pink colored)
- Plastic and glass materials
- Rubber and synthetic materials including Styrofoam
- Wood materials

The materials classified as non-asbestos-containing materials based on bulk sampling and analytical results are listed in Appendix B, Bulk Sample Summary Analysis Report.

#### **3.2 Asbestos-Containing Building Materials**

All suspect building materials were sampled and analyzed for asbestos (see the following tables listed by Room Numbers and Appendix B Bulk Sample Summary Analysis Report).

Because of the limitations of PLM analysis with non-friable organically bound (NOB) materials such as floor tile, it is possible that asbestos fibers could be present in floor tile samples, which initially tested negative for asbestos content. For this reason, it is recommended that a representative number of floor tile and other NOB material samples which initially tested negative for asbestos, be further analyzed by Transmission Electron Microscopy analysis to determine if asbestos is present in the material.

For this report, ACBM is classified as either Friable or Non-Friable. The following are the general definitions of each:

- Friable Material: Any material which, when dry, may be easily crumbled, pulverized, or reduced to a powder by hand pressure. This includes previously non-friable material after it becomes damaged to the extent that when dry, it may be crumbled, pulverized, or reduced to a powder by hand pressure.
- Non-Friable Material: Any material which, when dry, may not be easily crumbled, pulverized, or reduced to a powder by hand pressure.

The locations, types, quantities of ACBM and assumed ACBM identified at the Site are listed in the following pages. Functional spaces are listed by room numbers.

If more than one example of a particular ACBM type (eg. TSI pipe and duct insulation ) was identified in one functional space, more than one sheet with the same room number will be found. Suspect building materials, such as floor tile, which are similar materials or layered materials, with the same analytical results may be listed together on the same sheet.

Asbestos containing building materials are categorized as Thermal System Insulation (TSI), Flooring Materials (FM or FT), Wall Materials (WM), Ceiling Materials (CM), Surfacing Materials (SM). Miscellaneous Materials (MM) may be building materials, furnishings, etc.

Condition of ACBM material was classified using one of nine codes based on material type and degree of damage. Recommendations are based on three options, removal, repair or O&M. The codes are listed on the next page.

### **3.3 Survey Work Sheet and Assessment Form**

Each of the following forms contains general room or area descriptions and the complete inventory of ACBM by material type including quantities, associated samples numbers, analytical results, material assessments, comments and recommendations for one homogeneous area.

### 3.3.1 #1 Science

- 850 lf Pipe Cover was found above ceilings, behind cabinets, in enclosed risers throughout the wing;
- 3200 sf VAT Floor Tile was found in Rooms 1, 5, 6, Chemical Storage in Room 2 (VAT remains under fixed cabinets Rooms 2, 3, 4);
- Transite Lined Fume Hood- including cabinet below found Room 5;
- ACM Bench Tops, bench shelving and drying racks were found in Rooms 1, 2, 3, 4, 5, 6

### 3.3.2 #2 Social Studies, Computer, Offices

- 3800 sf VAT Floor Tile was found Rooms 12A, 14, 15A, hallway and under fixed cabinets;
- ACM Bench Tops

### 3.3.3 # 3 English, Foreign Language, Learning Center

- 8000 sf VAT Floor Tile was found Throughout (tile under temporary walls in Learning Center and built-ins Room 27 and elsewhere)
- ACM Pipe Cover has been removed from Room 27 Mechanical Room and trenches
- Pipe Fitting Insulation – non-asbestos

### 3.3.4 #4 English, Math, Photography, Offices

- 950 lf Pipe Cover was found above ceilings, behind cabinets, in enclosed risers;
- VAT Floor Tile has been Removed (may remain under built-ins)

### 3.3.5 #5 Locker Room, Offices

- 1,900 sf Transite common wall with Old Gym (double layer, corrugated outside, flat inside)

### 3.3.6 #6 Cafeteria, Stage, Kitchen

- East (front) and South Walls in the Old Gym are transite (more may be hidden behind finished walls);
- Transite Walls & Ceilings were found in kitchen, store room;
- Transite soffits were found in alley over Boiler Room #2;
- Boiler Room 2 contains breeching, gaskets, pipe cover, transite walls & double ceilings

3.3.7 #7 Library

- No Asbestos Containing Materials were found.

3.3.8 #8 Gymnasium, Locker Rooms, Band Room

- No Asbestos Containing Materials were found.

3.3.9 #9 General Classrooms

- Some exterior window caulking was found

3.3.10 #10 Technical Education, Math

- No Asbestos Containing Materials were found.

3.3.11 #11 Choir

- No Asbestos Containing Materials were found.

3.3.12 #12 Mobile Classroom

- No Asbestos Containing Materials were found.

3.3.13 #13 Mobile Classroom

- No Asbestos Containing Materials were found.

3.3.14 #14 Mobile Classroom

- No Asbestos Containing Materials were found.

3.3.15 #15 Mobile Classroom

- No Asbestos Containing Materials were found.

3.3.16 #16 Mobile Classroom

- No Asbestos Containing Materials were found.

3.3.17 Roofing

- All roofing appears to be rubber membrane. In order to verify that no asbestos roofing is below, a professional roofer with the ability to patch and vulcanize the membrane must be on-site. The Old Academy Building has a pitched slate roof.

## Appendix A

### DEFINITIONS

**Abatement.** "Abatement" means any measure or set of measures designed to permanently eliminate asbestos or lead-based paint hazards. "Abatement" includes, but is not limited to:

a. The removal of specific material or contaminants dust, the permanent enclosure or encapsulation, the replacement whole components or fixtures and the removal or covering of lead-contaminated soil; and

b. All preparation, cleanup and post-abatement clearance testing activities associated with such measures.

"Abatement" does not include renovation and remodeling as defined below. For purposes of this definition, "permanently" means for at least 20 years.

**Abrasive blasting.** "Abrasive blasting" means the procedure of removing paint from a surface by using mechanical force to apply an abrasive material, e.g. sand, grit, or other similar material, to the painted surface.

**Apparent lead concentration.** "Apparent lead concentration" (ALC) means the result displayed or identified when a painted surface is measured by direct reading XRF. The ALC is expressed in units of milligrams per square centimeter (mg/cm<sup>2</sup>).

**Asbestos Fibers** - This expression refers to asbestos fibers having an aspect ratio of 3:1 according to NIOSH 7400 method utilized and longer than five microns.

**Asbestos Project Specialist** - An asbestos evaluation specialist/compliance monitor registered by the State of Maine, working under the direction of the asbestos project manager shall be on site throughout the entire abatement project to conduct site inspections, air monitoring, and insure compliance with all applicable Federal, State, and local health and safety regulations.

**ASTM** - American Society For Testing and Materials, 1916 Race Street, Philadelphia, PA 19103

**Authorized visitor** - The Building Owner (and any designated representatives) and any representative of a regulatory or other agency having jurisdiction over the project.

**Building Owner** - The Owner or his authorized representative.

**Clearance** - Approval given by the authorized representative of the building owner to start and/or continue work sequences. Clearances may be given upon visual inspection and/or air monitoring results.

**Competent Person** - A person who is capable of identifying existing asbestos, tremolite, anthophyllite, or actinolite hazards in the workplace and who has the authority to take prompt

corrective measures to eliminate them as specified in 29 CFR 1926.32 (f). The duties of the competent person include at least the following: establishing the negative pressure enclosure, ensuring its integrity, and controlling entry to and exit from the enclosure; supervising any employee exposure monitoring required by the standards; ensuring that all employees working within such an enclosure wear the appropriate personal protective equipment, are trained in the use of appropriate methods of exposure control, and the use of the hygiene facilities and decontamination procedures specified in the standards; and ensuring that engineering controls in use are in proper operating condition and are functioning properly.

**Conditions of paint.** Means paint may be classified as "good," "fair," or "poor" as described below:

(1) **Good** condition is one in which the painting is entirely intact.

(2) **Fair** condition is one in which paint is intact, but WORN; minor chips are evident as a result of normal wear and tear; no adhesion or substrate problems, e.g., broken wallboard, are present. Individual interior

components with large surface areas (walls, ceilings, floors, doors) that evidence less than or equal to 2 square feet of normal wear and tear are considered to be in fair condition . Individual interior components with small surface areas (window sills, baseboard) that evidence less than or equal to 10 percent normal wear and tear on the total surface area of the component are considered to be in fair condition. Exterior components with large surface areas that evidence less than or equal to 10 square feet of normal wear and tear are considered to be in fair condition. Individual exterior components with small surface areas (soffits, trim) that evidence less than or equal to 10 percent normal wear and tear on the total surface area of the component are considered to be in fair condition

Note: This refers to each individual component or side of building, not the combined surface area of all similar components in a room.

(3) **Poor** condition is one in which paint is not intact, severely worn or weathered, no longer adhering, i.e., peeling, cracking, flaking, chalking; substrate is broken, exposed or otherwise deteriorated . Individual interior components with large surface areas (walls, ceilings, floors, doors) that evidence greater than 2 square feet of normal wear and tear or direct damage are considered to be in poor condition . Individual interior components with small surface areas (window sills, baseboard) that evidence greater than 10 percent normal wear and tear or direct damage on the total surface area of the component are considered to be in fair condition. Exterior components with large surface areas that evidence greater than 10 square feet of normal wear and tear or direct damage are considered to be in fair condition. Individual exterior components with small surface areas (soffits, trim) that evidence greater than 10 percent normal wear and tear or direct damage on the total surface area of the component are considered to be in poor condition. [Note: this refers to each individual component or side of building, not the combined surface area of all similar components in a room]

**Containment work area** - Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area which has been temporarily sealed, double layered with polyethylene sheeting, negatively pressurized to .02 inches of water - column relative to adjacent non-sealed areas, and equipped with a decontamination enclosure system. Non-containment work area is controlled-access by critical or physical barriers and is

not necessarily work area which has been isolated and equipped with a decontamination enclosure system.

**Contractor** - The individual and/or business with which the Building Owner arranges to perform the asbestos abatement. It is recommended that wherever asbestos abatement is part of a larger project, the asbestos work be contracted separately and distinctly from other contract work. When this is not possible, the Contractor is responsible for the proper completion of project activities in accordance with the contract specifications even where a subcontractor has been retained to perform the actual abatement.

**Coverall Suit** - Any protective covering disposable suit impervious to asbestos fibers of a color different from the disposal suit worn in containment for the purpose of distinguishing the particular phase of work decontamination. A blue suit is worn over a containment suit when a worker must travel from a contained work area through a dirty room to a decontamination enclosure system or shower. It also is worn by the outside crew during the waste-container pass-out procedure.

**Critical Barrier** - A barrier of polyethylene sheeting used to cover vents, floors, walls, doorways, windows, etc. in an asbestos control area. The first layer of polyethylene sheeting in a containment work area and the single layering of polyethylene sheeting in a glovebag removal work area are examples of critical barriers. Signage requirements for critical barriers are the same as for containment work areas.

**Demolition** - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations.

**Destructive or Invasive Survey**. Partial demolition of walls, floors, chases etc. to an extent greater than can be repaired by the inspector, in order to locate hidden ACM. The inspector is not responsible for the damage unless specifically addressed in the contractual agreement.

**Encapsulant** - A liquid adhesive material which can be applied to asbestos containing material which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

**Encapsulation** - The application of an encapsulant to asbestos containing materials to control the release of asbestos fibers into the air.

**Enclosure** - The construction of an impermeable, permanent barrier around asbestos containing material to control the release of asbestos fibers into the air.

**EPA** - U.S. Environmental Protection Agency, 401 M Street S.W., Washington, D.C. 20460

**Equipment decontamination enclosure system** - That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment into or out of the work area, typically consisting of a washroom and holding area.

**Equipment room** - A contaminated area or room which is part of the worker decontamination enclosure system with provisions for storage of contaminated clothing and equipment.

**Exposure** - Asbestos: (1) The permissible exposure limit (PEL): 0.1 fibers per cubic centimeter of air (f/cc) averaged over 8 hours. (2) OSHA 30 minute

excursion limit: 1.0 fibers per cubic centimeter of air (f/cc) measured over a 30 minute interval.

Lead: (1) The OSHA permissible exposure limit (PEL): 50 microgram of lead per cubic meter of air ( $\mu\text{g}/\text{cm}^3$ ) averaged over 8 hours. (2) OSHA Action Level (AL): 30 microgram of lead per cubic meter of air ( $\mu\text{g}/\text{cm}^3$ ) averaged over 8 hours.

**Facility** - Any institutional, commercial or industrial structure, installation or building.

**Facility component** - Any pipe, duct, boiler, tank, reactor, turbine or furnace at or in a facility or any structural member of a facility.

**Fixed object** - A piece of equipment or furniture in the work area which cannot be removed from the work area.

**Friable Asbestos Material** - Material that contains more than 1% asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

**Glovebag technique** - A method with limited applications for removing small amounts of friable asbestos-containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces in a non-contained (plasticized) work area. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of 6 mil transparent polyethylene or polyvinylchloride plastic), two inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. All workers who are permitted to use the glovebag technique must be highly trained, experienced and skilled in this method.

**HVAC** - Heating, ventilation and air conditioning system

**HEPA Filter** - A high efficiency particulate air filter capable of removing particles  $>0.3$  microns in diameter with 99.97% efficiency

**HEPA vacuum** - A vacuum system equipped with HEPA filtration

**Holding area** - A chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an airlock.

**Interim controls.** "Interim controls" means a set of measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards, including specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring of lead-based paint hazards and the establishment and operation of management and resident education programs.

**Invasive or Destructive Survey.** Partial demolition of walls, floor, etc. to an extent greater than can be repaired by the inspector, in order to locate hidden ACM. The inspector is not responsible for the damage unless specifically addressed in the contractual agreement.

**Lead abatement contractor.** "Lead abatement contractor" means a business entity that engages in or intends to engage in lead abatement activities as a business service and employs or involves one or more project supervisors

**Lead-based paint.** "Lead-based paint" means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or more than 0.5% by weight.

**Lead-based paint activities.** "Lead-based paint activities" means inspection, risk assessment, lead abatement design, lead abatement and services related to lead-based paint such as interim controls, lead screening, lead determination, and deleading.

**Lead-containing waste material or lead-containing waste.** "Lead-containing waste material or lead-containing waste" means any waste, debris, or material intended for disposal, including, but not limited to, disposable equipment and clothing, that contains lead in excess of acceptable levels.

**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-contaminated paint that is in poor condition or present on chewable surfaces, friction surfaces, or impact surfaces.

**Lf** - Linear Feet of asbestos pipe insulation, duct tape, etc.

**Movable object** - A piece of equipment or furniture in the work area which can be removed from the work area.

**Negative Pressure Respirator** - A respirator in which the air pressure inside the respiratory inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

**Negative pressure ventilation system** - A portable exhaust system equipped with both a pre-filter and HEPA filtration and capable of maintaining a constant low velocity air flow into contaminated areas from adjacent uncontaminated areas.

**NESHAP** - The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

**NIOSH** - The National Institute for Occupational Safety and Health, CDC - NIOSH, Building J N.E., Room 3007, Atlanta, GA 30333

**No Suspect Material** - Suspect material is the building materials which normally contain asbestos. If none of these materials is present (i.e., ceiling is pre-stressed concrete), the material description will be no suspect materials.

**Non-friable asbestos material** - Material that contains asbestos in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and will not release fibers in excess of the asbestos control limit during any appropriate use, handling, demolition, storage, transportation, processing, or disposal.

**Operations and Maintenance (O&M)** - The principal objective of the Operations and Maintenance (O&M) program is to minimize exposure of all building occupants to asbestos fibers. To accomplish this objective, an O&M program includes work practices to (1) maintain asbestos-containing material (ACM) in good condition, (2) ensure proper cleanup of asbestos fibers previously released, (3) prevent further release of asbestos fibers, and (4) monitor the condition of the ACM. An O&M program should be developed and implemented within the facility and include specific directions on how to deal with each of the general categories of ACM. Specified O&M work practices and procedures should be employed by trained personnel during building cleaning, maintenance, renovation, and general operational activities that may involve surfacing, thermal, or miscellaneous ACM.

**OSHA** - The Occupational Safety and Health Administration 200 Constitution Avenue, Washington, D. C. 20210

**Outside air** - The air outside buildings and structures.

**Personal Monitoring** - Sampling of airborne fiber concentrations within the breathing zone of an employee.

**Physical Barrier** - A rigid-framed or solid barrier (not polyethylene) constructed to prevent entrance into an asbestos control area. Plywood and locked and taped doors are examples of physical barriers. Signage requirements for physical barriers are the same as for containment work areas.

**Polyethylene Sheeting** - Impermeable plastic sheeting as herein specified.

**Removal** - The stripping of any asbestos-containing materials from surfaces or components of a facility.

**Renovation** - Altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.

**Respirator** - A device designed to protect the wearer from the inhalation of contaminated atmospheres.

**Sf** - Square Feet of asbestos containing floor tile, duct insulation, tank insulation, etc.

**Structural member** - Any load-supporting member of a facility, such as beams and load-supporting walls or any non-load-supporting member, such as ceilings and non-load-supporting walls.

**Surfactant** - A chemical wetting agent added to water to improve penetration.

**TCLP.** "TCLP" means the "Toxicity Characteristic Leaching Procedure" as described in EPA SW-846.

**Time Weighted Average 8 Hour (TWA)** - The TWA is an eight-hour time weighted average of airborne concentration of fibers, longer than 5 microns per cubic centimeter of air as described in 1926.587 appendix A sampling methods.

**Visible emissions** - Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

**Visible Residue or Debris** - Material which is visible to the naked eye.

**Wet cleaning** - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with water and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.

**Work Area** - The area where asbestos related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a regulated area as defined by 29 CFR 1926.

**XRF.** "XRF" means an x-ray fluorescent lead-in-paint analyzer used to determine lead concentration.

## **Appendix B; Asbestos Bulk Sample Summary Report**

Samples for asbestos analysis were collected by EPA certified and State licensed inspectors. Proper safety measures such as wetting the material prior to sampling, cleaning up the area by wet-wiping any resulting residual debris, and wearing proper personal protective equipment, were employed. Coring tools and knives were utilized to be certain of sampling the entire thickness of a material. Materials such as floor tile and associated mastic were collected as composite samples and each layer was analyzed separately as appropriate. All samples were placed in appropriately labeled airtight containers for shipment to the laboratory for analysis.

All asbestos bulk samples collected were analyzed by Environmental Safety Professionals, a State Licensed Asbestos analytical laboratory. A percentage of these samples were also analyzed by another licensed laboratory, IATL as a quality assurance (results of quality assurance and TEM confirmation samples are found in Appendix G, Quality Assurance). IATL has been accredited by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) to perform asbestos bulk sample analysis. All bulk samples were analyzed for asbestos content using Polarized Light Microscopy (PLM) with Dispersion Staining (EPA Method 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Building Materials). Asbestos-containing materials are defined as suspect materials which have at least one sample containing an asbestos content of more than 1 percent from a homogeneous area set of samples. All bulk samples from a homogeneous area must be found to contain 1 percent or less of asbestos to be classified as non-asbestos-containing.

Easily identified fiberglass insulation was not sampled and can be safely assumed to be non-asbestos containing in accordance with EPA protocol.



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
 21 Sylvan Drive  
 Brewer, Maine 04412  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Credere Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Received** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-001	Room 27 9x9 Gray floor tile	<input checked="" type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	10-15%	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (		<input type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Polymer Resin )	45-55% 20-30%
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-002	Room 24 1x1 Spline Ceiling tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	80-85%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input checked="" type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Organics )	1 - 3% 1 - 2% 8-10%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-003	Room 5 2x4 Perforated Suspended Ceiling Tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input checked="" type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	80-85%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other (	10-15%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Crede Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Received** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

**Analytical Method-NIOSH 9002 or EPA/600/R-93/116**

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-004	Room 37 2x4 Ceiling tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite <b>Is Asbestos Present ?</b>	None <b>Detected</b>    <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	   30-40%  	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Perlite )	15-25%    25-35%
B-005	Room 1 1x1 Gray floor tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite <b>Is Asbestos Present ?</b>	None <b>Detected</b>    <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	None Detected    	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Polymer Resin )	10-20% 40-50%   20-25%
B-006	Room 2 1x1 Gray floor tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite <b>Is Asbestos Present ?</b>	None <b>Detected</b>    <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	None Detected    	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Polymer Resin )	15-25% 40-50%   20-25%



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

<b>Project Name</b>	Hampden Academy..... 1 Main Road North..... Hampden, Maine 04444.....	<b>Samples Submitted By</b>	Mark Morehouse AI-0133).....	<b>Date Received</b>	6/28/2012.....
<b>Client Name/Address</b>	Credere Associates LLC..... 776 Main Street..... Westbrook, ME 04092.....	<b>Analyst</b>	Mark Morehouse (BA-0059).....	<b>Date Analyzed</b>	7/2/2012.....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-007.....	Wing 3 Hallway..... Sheet Rock and Joint Compound.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	None..... <b>Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input checked="" type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	..... ..... ..... 5-10%..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30%..... 45-55%..... ..... ..... .....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-008.....	Room 23..... Sheet Rock and Joint Compound.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	None..... <b>Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input checked="" type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	..... ..... ..... 5-10..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30..... 45-55..... ..... ..... .....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-009.....	Room 10..... 1x1 White floor tile.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	None..... <b>Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	None Detected..... ..... ..... ..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other (Polymer Resin.....)	15-25%..... 40-50%..... ..... ..... 20-25%.....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
 21 Sylvan Drive  
 Brewer, Maine 04412  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** Hampden Academy  
 1 Main Road North  
 Hampden, Maine 04444

**Samples Submitted By** Mark Morehouse (AI-0133)

**Analyst** Mark Morehouse (BA-0059)

**Date Received** 6/28/2012

**Date Analyzed** 7/2/2012

**Client Name/Address** Credere Associates LLC  
 776 Main Street  
 Westbrook, ME 04092

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-010	Room 27 Mechanical Rm Mudded Fitting on Fiberglass Line	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite		<input checked="" type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	25-35%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	35-45% 10-20%
		<b>Is Asbestos Present ?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
B-011	Room 4 1x1 Gray floor tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	None Detected	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Polymer Resin )	15-25% 40-50% 20-25%
		<b>Is Asbestos Present ?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
B-012	Building 6 Kitchen Mudded Fitting on Fiberglass Line	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input checked="" type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	25-35%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	35-45% 10-20%
		<b>Is Asbestos Present ?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

<b>Project Name</b>	Hampden Academy..... 1 Main Road North..... Hampden, Maine 04444.....	<b>Samples Submitted By</b>	Mark Morehouse AI-0133).....	<b>Date Received</b>	6/28/2012.....
<b>Client Name/Address</b>	Credere Associates LLC..... 776 Main Street..... Westbrook, ME 04092.....	<b>Analyst</b>	Mark Morehouse (BA-0059).....	<b>Date Analyzed</b>	7/2/2012.....

**Analytical Method-NIOSH 9002 or EPA/600/R-93/116**

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-013	Room 5..... Mastic associated with Gray 9x9 floor tile.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	5-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....	None Detected.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other ( Polymer Resin ).....	10-20%..... 30-40%..... ..... ..... 20-25%.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-014	Room 5..... 9x9 Gray floor tile.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	10-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....	.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other ( Polymer Resin ).....	..... 45-55%..... ..... ..... 20-30%.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-015	Room 1 under cabinet..... 9x9 Gray floor tile.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	10-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....	.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other ( Polymer Resin ).....	..... 45-55%..... ..... ..... 20-30%.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

<b>Project Name</b>	Hampden Academy..... 1 Main Road North..... Hampden, Maine 04444.....	<b>Samples Submitted By</b>	Mark Morehouse AI-0133).....	<b>Date Received</b>	6/28/2012.....
<b>Client Name/Address</b>	Credere Associates LLC..... 776 Main Street..... Westbrook, ME 04092.....	<b>Analyst</b>	Mark Morehouse (BA-0059).....	<b>Date Analyzed</b>	7/2/2012.....

**Analytical Method-NIOSH 9002 or EPA/600/R-93/116**

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-016	Room 1 Mastic associated with 9x9 Gray floor tile	<input checked="" type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	3 - 5%	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (.....)		<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other (Organics )	45-55% 20-30%
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-017	Room 14 2x4 Perforated Suspended Ceiling Tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input checked="" type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (.....)	80-85%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other (.....)	10-15%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-018	Room 15 2x4 Perforated Suspended Ceiling Tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input checked="" type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (.....)	80-85%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other (.....)	10-15%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

<b>Project Name</b>	Hampden Academy..... 1 Main Road North..... Hampden, Maine 04444.....	<b>Samples Submitted By</b>	Mark Morehouse AI-0133).....	<b>Date Received</b>	6/28/2012.....
<b>Client Name/Address</b>	Credera Associates LLC..... 776 Main Street..... Westbrook, ME 04092.....	<b>Analyst</b>	Mark Morehouse (BA-0059).....	<b>Date Analyzed</b>	7/2/2012.....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-019.....	Room 38..... 2x4 Suspended Ceiling Tile.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	None..... <b>Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input checked="" type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....	..... ..... ..... 35-45%..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other (Perlite.....)	15-25%..... ..... ..... ..... 20-30%.....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-020.....	Room 34..... 2x4 Suspended Ceiling tile.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	None..... <b>Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input checked="" type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....	..... ..... ..... 35-45%..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other (Perlite.....)	15-25%..... ..... ..... ..... 20-30%.....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-021.....	New Gym Hallway..... 1x1 Gray floor tile.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	None..... <b>Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....	None Detected..... ..... ..... ..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other (Polymer Resin.....)	10-20%..... 40-50%..... ..... ..... 20-25%.....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Crede Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Received** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

**Analytical Method-NIOSH 9002 or EPA/600/R-93/116**

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-022	Building 4 Hallway 1x1 White floor tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	None Detected	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Polymer Resin )	15-25% 40-50% 20-25%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-023	Building 4 Hallway 1x1 White floor tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	None Detected	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other ( Polymer Resin )	15-25% 40-50% 20-25%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-024	Wing 2 Hallway Ceiling Sheet Rock and Joint Compound	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	5-10	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other (	20-30 45-55
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Credera Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Recieved** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-025	Wing 2 Hallway walls Sheet Rock and Joint Compound	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	5-10	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	20-30 45-55
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-026	Room 14 Sheet Rock and Joint Compound	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	5-10	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	20-30 45-55
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-027	Room 22 1x1 Spline Ceiling tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input checked="" type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	80-85%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input checked="" type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other (Organics )	1 - 3% 1 - 2% 8-10%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Crede Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Recieved** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-028	Room 26 1x1 Spline Ceiling tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input checked="" type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	80-85%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input checked="" type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other (Organics)	1 - 3% 1 - 2% 8-10%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-029	Hallway between 2 & 3 2x4 Suspended Ceiling tile	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	35-45%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input checked="" type="checkbox"/> Other (Perlite)	15-25% 20-30%
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-030	Cafeteria AHU Vibration Joints on Duct	<input checked="" type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	85-90%	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other (	None Detected	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other (	.5-10%
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

<b>Project Name</b>	Hampden Academy..... 1 Main Road North..... Hampden, Maine 04444.....	<b>Samples Submitted By</b>	Mark Morehouse AI-0133).....	<b>Date Received</b>	6/28/2012.....
<b>Client Name/Address</b>	Credere Associates LLC..... 776 Main Street..... Westbrook, ME 04092.....	<b>Analyst</b>	Mark Morehouse (BA-0059).....	<b>Date Analyzed</b>	7/2/2012.....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-031.....	Boiler Room 2..... Breeching Insulation.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	<b>35-40%</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	None Detected.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	30-35%..... 20-25%.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-032.....	Hallway Wing 4..... Mastic Associated with 1x1 White floor tile.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	<b>None Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	None Detected.....	<input type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input checked="" type="checkbox"/> Other (Organics.....)	..... 10-15%..... ..... ..... 75-85%.....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-033.....	Main Entrance Exterior Overhang..... 2x4 Lay-in Panels.....	<input type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	<b>None Detected</b> .....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input checked="" type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	..... ..... 3 - 5%..... .....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30%..... 55-65%..... ..... .....
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Crede Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Recieved** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-034	Exterior Overhang Cafeteria Entrance 2x4 Lay-in Panels	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite <b>Is Asbestos Present ?</b>	None <b>Detected</b>	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input checked="" type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	3 - 5%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	20-30% 55-65%
B-035	Room 010S Mudded Fitting on Fiberglass Line	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite <b>Is Asbestos Present ?</b>	None <b>Detected</b>	<input checked="" type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	15-25%	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	35-45% 20-30%
B-036	Room 35 Air-Cell type TSI on heat line rise to Univent	<input checked="" type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite <b>Is Asbestos Present ?</b>	35-40%	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	None Detected	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	30-35% 20-25%



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name** ..... Hampden Academy .....  
 ..... 1 Main Road North .....  
 ..... Hampden, Maine 04444 .....  
**Client Name/Address** ..... Credere Associates LLC .....  
 ..... 776 Main Street .....  
 ..... Westbrook, ME 04092 .....

**Samples Submitted By** ..... Mark Morehouse AI-0133) .....  
**Analyst** ..... Mark Morehouse (BA-0059) .....

**Date Recieved** ..... 6/28/2012 .....  
**Date Analyzed** ..... 7/2/2012 .....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-037	Room 60 off Cafeteria Sheet Rock and Joint Compound	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	5-10	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	20-30 45-55
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-038	Food Prep Rm off Cafeteria Sheet Rock and Joint Compound	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	5-10	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	20-30 45-55
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
B-039	Class Rm 62 off Cafeteria Sheet Rock and Joint Compound	<input type="checkbox"/> Chrysotile <input type="checkbox"/> Amosite <input type="checkbox"/> Crocidolite <input type="checkbox"/> Tremolite <input type="checkbox"/> Actinolite	None Detected	<input type="checkbox"/> Mineral Wool <input type="checkbox"/> Fibrous Glass <input type="checkbox"/> Synthetic Fiber <input checked="" type="checkbox"/> Cellulosic Fiber <input type="checkbox"/> Other ( )	5-10	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders <input checked="" type="checkbox"/> Mineral Debris <input type="checkbox"/> Mastic <input type="checkbox"/> Talc <input type="checkbox"/> Other ( )	20-30 45-55
		<b>Is Asbestos Present ?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

<b>Project Name</b>	Hampden Academy..... 1 Main Road North..... Hampden, Maine 04444.....	<b>Samples Submitted By</b>	Mark Morehouse AI-0133).....	<b>Date Recieved</b>	6/28/2012.....
<b>Client Name/Address</b>	Credere Associates LLC..... 776 Main Street..... Westbrook, ME 04092.....	<b>Analyst</b>	Mark Morehouse (BA-0059).....	<b>Date Analyzed</b>	7/2/2012.....

Analytical Method-NIOSH 9002 or EPA/600/R-93/116

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-040.....	Room 10..... Black Bench Tops.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	10-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30..... 45-55.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-041.....	Room 5..... Black Bench Tops.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	10-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30..... 45-55.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
B-042.....	Room 4..... Black Bench Tops.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	10-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)	.....	<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30..... 45-55.....
		<b>Is Asbestos Present ?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				



**ENVIRONMENTAL SAFETY PROFESSIONALS**  
**21 Sylvan Drive**  
**Brewer, Maine 04412**  
 207-989-6848

**BULK SAMPLE SUMMARY REPORT**

**Project Name**      Hampden Academy.....  
                           1 Main Road North.....  
                           Hampden, Maine 04444.....

**Samples Submitted By**      Mark Morehouse AI-0133).....

**Analyst**                              Mark Morehouse (BA-0059).....

**Date Recieved**                      6/28/2012.....

**Date Analyzed**                      7/2/2012.....

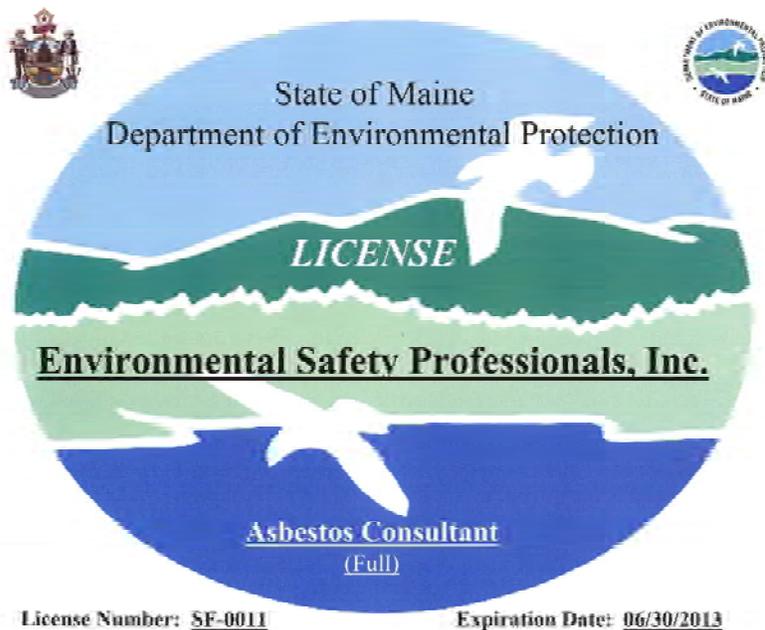
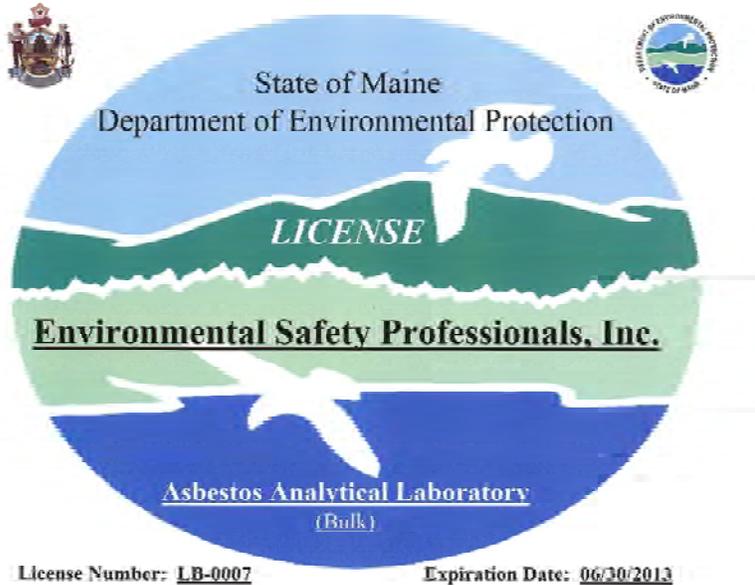
**Client Name/Address**      Credere Associates LLC.....  
   776 Main Street.....  
   Westbrook, ME 04092.....

**Analytical Method-NIOSH 9002 or EPA/600/R-93/116**

Sample I.D.	Sample Description	Asbestiform Components	%	Fibrous Components	%	Non-Fibrous Components	%
B-043.....	Room 1..... Black Bench Tops.....	<input checked="" type="checkbox"/> Chrysotile..... <input type="checkbox"/> Amosite..... <input type="checkbox"/> Crocidolite..... <input type="checkbox"/> Tremolite..... <input type="checkbox"/> Actinolite.....	10-15%.....	<input type="checkbox"/> Mineral Wool..... <input type="checkbox"/> Fibrous Glass..... <input type="checkbox"/> Synthetic Fiber..... <input type="checkbox"/> Cellulosic Fiber..... <input type="checkbox"/> Other (.....)		<input checked="" type="checkbox"/> Lime, Clay, or Mineral Binders..... <input checked="" type="checkbox"/> Mineral Debris..... <input type="checkbox"/> Mastic..... <input type="checkbox"/> Talc..... <input type="checkbox"/> Other (.....)	20-30..... 45-55.....
		<b>Is Asbestos Present ?</b>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

## Appendix C; Documentation of Qualifications

The following documents verify qualifications, certifications and required licenses of the laboratories, consulting firms and inspectors participating in this project.





STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

November 30, 2011

**Environmental Safety Professionals, Inc.**  
21 Sylvan Drive  
Brewer, Maine 04412

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>
Mark Morehouse	Air Monitor	AM-0008	11/30/2012
Mark Morehouse	Inspector	AI-0133	11/30/2012

Sincerely,

  
Sandra J. Moody, Environmental Technician  
Division of Solid Waste Management  
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) 760-3145



# CREDERE ASSOCIATES, LLC

776 Main Street  
Westbrook, Maine 04092  
Phone: 207-828-1272  
Fax: 207-887-1051

September 4, 2012

Via E-mail: [economicdevelopment@hampdenmaine.gov](mailto:economicdevelopment@hampdenmaine.gov)

Mr. Dean Bennett  
Director of Community and Economic Development  
Town of Hampden  
106 Western Avenue  
Hampden, Maine 04444

**Subject: Assessment Summary and Proposal for PCB Site Characterization  
Hampden Academy, 1 Main Road North, Hampden, Maine**

Dear Mr. Bennett:

Credere Associates, LLC (Credere) completed initial environmental assessment activities at the above-referenced property (the Site). These activities have culminated in the delivery of a May 15, 2012, Phase I Environmental Site Assessment (ESA) and a Draft Phase II ESA dated August 14, 2012.

In order to support the decision making process associated with a future potential transfer of Site ownership and subsequent redevelopment, this proposal includes three components:

1. A summary of supplemental environmental activities, which should be considered prior to ownership transfer and are necessary to support the redevelopment and/or re-use of the Site.
2. A summary of select findings of the Phase I ESA that were not investigated during the completed Phase II ESA activities. These activities were intentionally excluded from Credere's scope. It is Credere's understanding that these tasks will either be completed at a later date or, in the opinion of the Town of Hampden, do not warrant further investigation.
3. A detailed description, schedule, and cost estimate for Site characterization sampling, which is required to define the nature and extent of polychlorinated biphenyls (PCBs) in building materials located at the Site.

## **1. Activities That Are Warranted Prior to Ownership Transfer / Redevelopment**

- a. Lead was identified in groundwater associated with the septic system located east of Building 10 (technical education, math, and art building). Credere recommends that this issue be submitted to the Maine DEP Voluntary Response Action Program (VRAP). Because the Site is in an area where public drinking water is provided, this issue may potentially be resolved

by recording a deed restriction that would prevent the on-Site use of groundwater for drinking purposes and would likely not require remediation.

- b. Regulated asbestos containing materials must be properly managed and/or abated prior to or during any future activity that could disturb these materials (i.e. renovation or demolition).
- c. A lead-based paint survey should be completed to confirm or dismiss the presence, and/or delineate the extent of lead-based paint on or within the Site buildings. This survey should be completed prior to any future activity that could disturb potential lead-based painted surfaces (i.e. renovation or demolition).
- d. If future redevelopment plans incorporate the demolition or significant renovation of the Site buildings, a universal and hazardous waste inventory should be performed and all identified waste materials should be properly disposed prior to or concurrent with redevelopment.
- e. Product contained in aboveground storage tanks (ASTs) that are not in service should be removed and properly disposed to prevent future potential releases of oil at the Site.

## **2. Phase I Findings That Were Not Investigated During the Phase II ESA**

- a. Multiple former No. 2 fuel oil and diesel underground storage tanks (USTs) are located on properties adjacent to and potentially upgradient of the Site. Based on the lack of information regarding the tanks, potential undocumented releases may have occurred. These potential off-Site releases may have impacted the environmental conditions of the Site.
- b. Floor drains are located in several boiler rooms at the Site. Undocumented releases of oil and/or hazardous substances to the septic system or to potentially undocumented drywells may have occurred via these drains. These potential releases may have impacted the environmental conditions of the Site.
- c. Discarded automobiles, an automobile gasoline tank, and building debris were observed on the Site. Oil and/or hazardous substances may have been released from the discarded items and may have impacted the environmental conditions of the Site.

## **3. PCB Site Characterization Scope and Cost Estimate**

Based on the results of the completed assessment work as presented in an August 14, 2012, Draft Phase II Environmental Site Assessment Report, total PCBs were identified in certain building materials at concentrations that are in excess of 50 mg/kg. Building materials that have been analyzed to contain concentrations of total PCBs equal to or in excess of 50 mg/kg are defined as PCB bulk product wastes in accordance with 40 CFR 761.3. These materials are regulated for disposal under 40 CFR 761.62. At this time, PCB bulk product waste has been positively identified in gray floor paint located in three areas of the Site (see attached figure).



In addition to the disposal requirements that are applicable for the identified PCB bulk product waste, there is a potential for concentrations of PCBs to leach from these manufactured products into the porous bulk materials to which they have been applied (i.e. underlying concrete floor). Bulk materials, such as concrete, which have been analyzed to contain total PCB concentrations equal to or in excess of 1 mg/kg as a result of contact with a PCB bulk product waste are considered to represent PCB remediation waste. These materials must be disposed of under a special approval which meets the requirements of 40 CFR 761.79(h). It is important to properly characterize any potential PCB remediation waste prior to the initiation of renovation or demolition activities, as the improper disposal of regulated PCB waste could represent a significant liability to the owner of the Site.

In accordance with the conditions described above, additional characterization is required in order to define the limits of regulated PCB containing materials and develop an appropriate PCB cleanup and disposal strategy. Once the limits of regulated materials are known and an appropriate remedy is developed, potential costs associated with the removal and disposal of PCBs can be generated. A summary of the recommended additional investigation work is presented below:

**Task 1: Additional Bulk Product Sampling and Analysis**

The completed initial assessment was designed to identify select potential PCB containing building materials in order to determine if there was a significant risk of regulated PCB bulk product waste at the Site. However, as this risk has now been confirmed, additional samples should be obtained from other potential PCB bulk product wastes to ensure that all regulated materials have been identified and quantified prior to a potential ownership transfer and the initiation of redevelopment efforts. This additional sampling will be required to provide an adequate characterization of the Site and obtain the proper cleanup approvals from the U.S. EPA. This task will include the collection and analysis of up to 21 bulk product samples (20 characterization samples and 1 QA/QC duplicate sample).

**Task 2: Bulk Material Sampling and Analysis**

Consistent with the results of the additional sampling described above, representative bulk samples should be collected from porous materials located below the identified PCB bulk product waste (i.e. concrete flooring) to determine if PCB remediation waste is present at the Site. This task will include the collection and analysis of up to 11 bulk material samples (10 characterization samples and 1 QA/QC duplicate sample).

**Task 3: Vertical Delineation Sampling and Analysis**

Bulk material samples will be collected from multiple discrete depths to define the vertical extent of regulated PCB concentrations. This task will include the collection and analysis of up to 12 bulk material samples. Samples will be collected to a maximum depth of 4 inches at three representative locations using a sample interval of 1-inch.



Though not ideal, this task will be completed concurrently with Task 2 to increase time efficiency.

#### **Task 4: Additional Sampling and Analysis Contingency (If Needed)**

As PCBs cannot be identified except through laboratory analysis, collecting all the samples that may be required for a complete Site characterization in one mobilization is not cost effective. As such, the level of effort anticipated to complete the tasks above is meant to be as comprehensive and efficient as possible based on known Site conditions. However, if the proposed sampling identifies additional regulated materials or an unanticipated level of contamination, additional assessment work may be required. As such, this task includes a contingency for additional sampling that may be required following the review of initial sample data. At this time, this contingency includes the collection and analysis of 21 additional samples (20 characterization samples and 1 QA/QC duplicate sample). These may include samples to assess bulk product, bulk material, vertical extent, or a combination thereof. *If adequate Site characterization data is obtained through the performance of Tasks 1 through 3, Task 4 will not be warranted.*

It is important to understand that the characterization of PCBs can be unpredictable regardless of the amount of past experience. Therefore, Credere cannot guarantee that the level of effort included in Tasks 1 through 4 will be sufficient to complete the Site characterization. However, our efforts will always be focused on maximizing cost and time efficiency while delivering the highest quality data available.

#### **Task 5: Data Analysis and Development of Remedial Options**

Credere will analyze the collected data with respect to 40 CFR 761. Credere will then prepare a summary of available remedial options, which may be available to properly remove and dispose and/or manage the identified PCBs and achieve regulatory closure at the Site. This summary will be presented to the Town of Hampden via email. Following review, Credere will attend one meeting with interested stakeholders to discuss the findings and select the best remedial option.

#### **Task 6: Remediation Cost Estimating**

Following the definition of the extent of regulated PCBs located at the Site and the collaborative identification of the selected remedial option, Credere will work with a preferred qualified contractor to generate budgetary remediation estimates that will include cleanup of PCBs, abatement of asbestos, and demolition of onsite buildings. In addition, potential remediation funding options will be presented. This task will include one Site visit and the results of the cost estimating effort will be presented to the Town of Hampden via email.



### **Task 7: Meetings**

This task includes two pre-assessment meetings that were held on August 20 and 28, 2012 at the Site and the offices of SAD 22, respectively. This task also includes a meeting that has been scheduled for September 24, 2012. If additional meetings outside of those specified in Tasks 5 and 6 are requested, they will be billed on a time and materials basis as described below.

### **Project Schedule**

An estimated schedule for Tasks 1 through 6 is presented below. This schedule assumes that notice to proceed is presented on September 5, 2012 and that standard laboratory turn-around is specified.

<b>Task</b>	<b>Start Date</b>	<b>End Date</b>
Task 1: Additional Bulk Product Sampling and Analysis	9/6/12	9/14/12
Task 2: Bulk Material Sampling and Analysis	9/17/12	9/25/12
Task 3: Vertical Delineation Sampling and Analysis	9/17/12	9/25/12
Task 4: Additional Sampling and Analysis Contingency (If Needed)	9/27/12	10/5/12
Task 5: Data Analysis and Development of Remedial Options	10/8/12	10/10/12
Task 6: Cost Estimating	10/11/12	10/17/12

### **Project Budget**

The estimated labor costs required to complete the above tasks are summarized in the attached **Table 1** and a breakdown of other direct charges / subcontracted expenses is presented in the attached **Table 2**. Though presented as estimates, the costs for the proposed scope of work will be treated as not-to-exceed amounts. These tasks will be billed on a time and materials basis in accordance with Credere's 2012 standard labor rates and General Provisions, which were previously presented. Additional tasks completed outside of the proposed scope of work will be billed on a time and materials basis. Credere will notify the Town of Hampden if a requested task falls outside of the original scope of work prior to completing the task.

As time is of the essence, Credere has included applicable rush laboratory analytical surcharges as separate line items for each applicable task in **Table 2**. Rush analysis would reduce laboratory turn-around from 5 business days (plus 1 day transit) to 48 hours (plus 1 day transit).



Your signature below constitutes approval of the above scope of work, and attached cost summary, rates, and General Provisions and represents our notice to proceed.

We look forward to working with you on this project. Please contact the undersigned at any time with questions or to further discuss the proposed scope.

Sincerely,  
**CREDERE ASSOCIATES, LLC**

  
Robert I. Patten, PE  
Vice President

ACCEPTED:

---

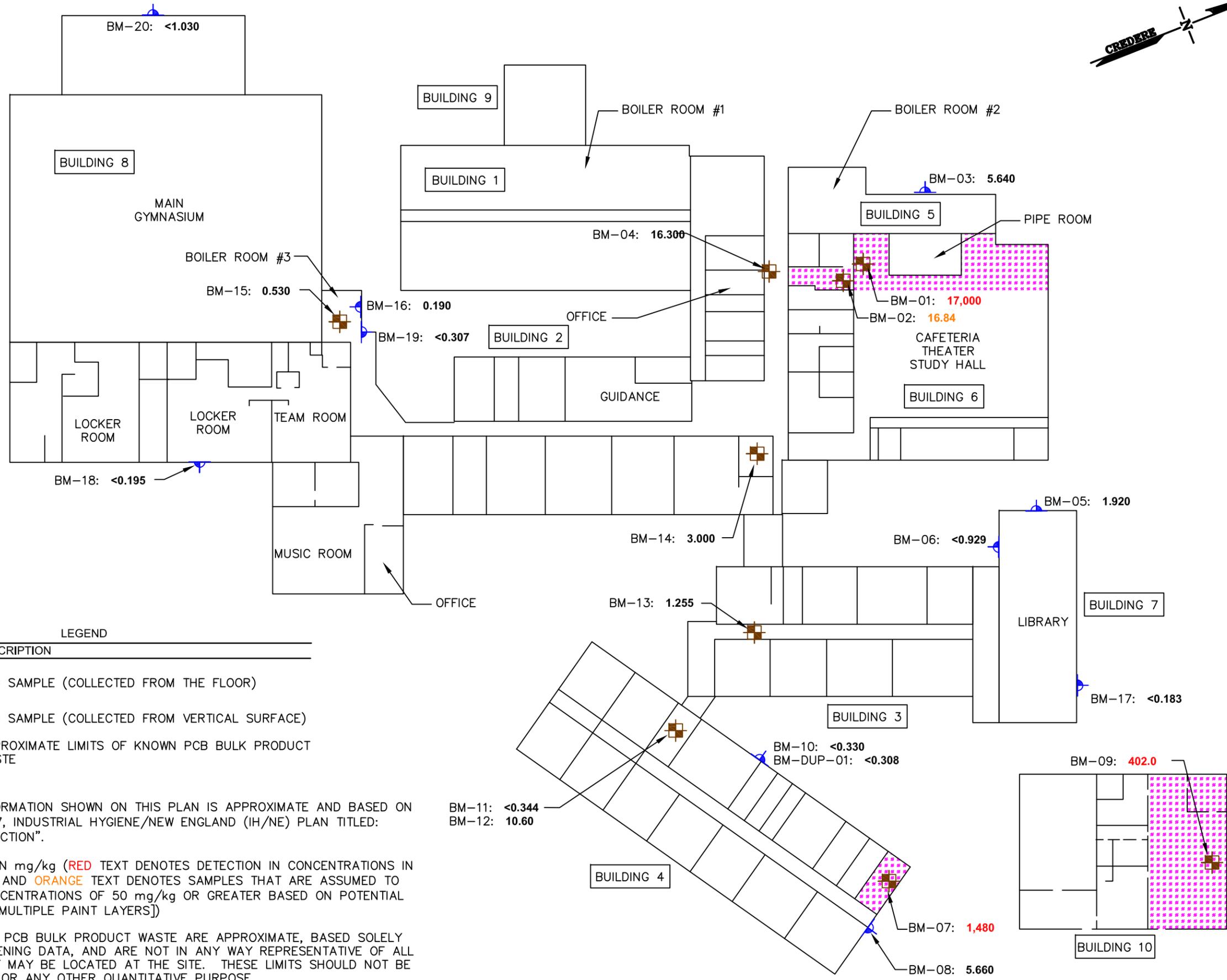
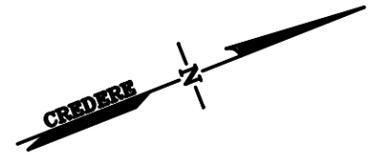
Susan Lessard  
Town Manager  
Town of Hampden, Maine

---

Date

Attached:      Figure 1 - Approximate Known PCB Bulk Product Waste Locations  
                    Table 1 - Estimated Cost Summary  
                    Table 2 - Labor and Expense Cost Breakdown





LEGEND

SYMBOL	DESCRIPTION
	PCB SAMPLE (COLLECTED FROM THE FLOOR)
	PCB SAMPLE (COLLECTED FROM VERTICAL SURFACE)
	APPROXIMATE LIMITS OF KNOWN PCB BULK PRODUCT WASTE

- NOTES:
- BUILDING OUTLINE INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE AND BASED ON THE DECEMBER 1, 1997, INDUSTRIAL HYGIENE/NEW ENGLAND (IH/NE) PLAN TITLED: "AHERA 3-YEAR INSPECTION".
  - PCB CONCENTRATION IN mg/kg (**RED** TEXT DENOTES DETECTION IN CONCENTRATIONS IN EXCESS OF 50 mg/kg AND **ORANGE** TEXT DENOTES SAMPLES THAT ARE ASSUMED TO CONTAIN PCBs AT CONCENTRATIONS OF 50 mg/kg OR GREATER BASED ON POTENTIAL DILUTION OF SAMPLE [MULTIPLE PAINT LAYERS])
  - THE LIMITS OF KNOWN PCB BULK PRODUCT WASTE ARE APPROXIMATE, BASED SOLELY ON PRELIMINARY SCREENING DATA, AND ARE NOT IN ANY WAY REPRESENTATIVE OF ALL REGULATED PCBs THAT MAY BE LOCATED AT THE SITE. THESE LIMITS SHOULD NOT BE USED FOR ESTIMATING OR ANY OTHER QUANTITATIVE PURPOSE.

FIGURE 1  
APPROXIMATE KNOWN LOCATIONS OF PCB BULK PRODUCT WASTE

HAMPDEN ACADEMY PROPERTY  
1 MAIN ROAD NORTH  
HAMPDEN, MAINE

DRAWN BY: WTE  
CHECKED BY: JSS/RSV  
DATE: 08/30/2012  
PROJECT: 12001144

CREDERE ASSOCIATES, LLC  
776 MAIN STREET  
WESTBROOK, MAINE 04092  
TEL: 207.828.1272  
FAX: 207.887.1051  
WWW.CREDERELLC.COM

NOT TO SCALE

<b>Table 1: Estimated Cost Summary: Credere Labor PCB Site Characterization, Hampden Academy, Hampden, Maine</b>	
<b>Task</b>	<b>Credere Labor</b>
Task 1: Additional Bulk Product Sampling and Analysis	\$1,950
Task 2: Bulk Material Sampling and Analysis	\$975
Task 3: Vertical Delineation Sampling and Analysis	\$975
Task 4: Additional Sampling and Analysis Contingency (If Needed)	\$1,620
Task 5: Data Analysis and Development of Remedial Options	\$1,635
Task 6: Cost Estimating	\$660
Task 7: Meetings	\$2,160
<b>Total Credere Labor</b>	<b>\$9,975</b>

<b>Table 2: Estimated Cost Summary: Subcontracted Expenses PCB Site Characterization, Hampden Academy, Hampden, Maine</b>			
<b>Task</b>	<b>Estimated Base Cost</b>	<b>Number of Samples</b>	<b>Optional Rush Surcharge</b>
Task 1: Additional Bulk Product Sampling and Analysis	\$3,550	21	\$500
Task 2: Bulk Material Sampling and Analysis	\$2,025	11	\$250
Task 3: Vertical Delineation Sampling and Analysis	\$2,025	12	\$275
Task 4: Additional Sampling and Analysis Contingency (If Needed)	\$3,580	21	\$500
Task 5: Data Analysis and Development of Remedial Options	\$50	0	\$0
Task 6: Cost Estimating	\$990	0	\$0
Task 7: Meetings	\$540	0	\$0
<b>Total Subcontracted Costs</b>	<b>\$12,710</b>	<b>65</b>	<b>\$1,525</b>

