

August 11, 2022

Mr. Robert O'Connor
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, Massachusetts 02114

**RE: Report of Pre-Demolition Hazardous Building Material Survey - DRAFT
Lampson Brook Farm
Belchertown, Massachusetts**

Dear Mr. O'Connor:

Weston & Sampson Engineers, Inc. (Weston & Sampson) is pleased to present this report of our Hazardous Building Materials (HBM) survey conducted for the 10-acre former Dairy Farm Complex and two Community Farm barns of the Lampson Brook Farm in Belchertown, Massachusetts. The goal of the project was to establish estimated demolition, removal and repair costs for potential bidders to purchase the property. It is our understanding a more thorough assessment and site plan will be performed and established prior to actual restoration of the site.

Within the HBM survey area, Weston & Sampson performed Pre-Demolition HBM sampling to identify suspect asbestos-containing materials (ACMs) and lead-based paint/coatings.

INTRODUCTION

The Lampson Brook Farm consists of 24 distinct buildings across the 10-acre site. Many Site buildings have experienced severe degradation and have been designated for demolition and were assessed as part of the HBM. Those buildings include:

- Dairy barn#1
- Dairy barn#2
- Dairy barn#3
- Loafing barn
- Bullpen
- Calf hospital
- Greenhouse
- Milk room
- Silos #1, #2, #4
- Root Cellar

The remaining buildings that have potential future use were assessed in the separate architectural and structural report also issued by Weston & Sampson. Those buildings include:

- Molasses shed
- Haybarn
- Manure shed
- Storage shed
- Silos # 3, #5, #6
- Community barns #1 and #2

A photo log has been provided as Attachment A.

SURVEY RESULTS

Asbestos Survey

The asbestos sampling was performed by Craig Miner and Lewis Tamaccio of Weston & Sampson, Massachusetts-licensed inspectors (MA Asbestos Inspector License #AI000014 and #AI000021) on February 9, 2022 and June 22, 2022. A total of 62 samples of suspect asbestos-containing materials were collected. Weston & Sampson performed the bulk sampling on Site according to methods outlined in the U.S. Environmental Protection Agency (EPA) guidance document titled, "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Document No. 560/5-85/024). Samples were analyzed via Polarized Light Microscopy (PLM) method EPA 600/R-93/116 by EMSL Analytical, Inc. (EMSL) in Woburn, Massachusetts and Meriden, Connecticut. Based on a review of the results of the PLM analyses, no samples were selected to be further analyzed via Transmission Electron Microscopy (TEM).

The EPA and Massachusetts Department of Environmental Protection (MassDEP), consider materials identified to contain greater than or equal to 1% asbestos to be ACMs. Asbestos was detected in several of the building materials sampled by Weston & Sampson in concentrations greater than or equal to 1%. The analytical results for all ACM samples are summarized in Table 1. A copy of the laboratory analytical report is included in Attachment B.

Several buildings (Dairy Barns #1 and #2, Root Cellar, Bull Pen Buildings) were unsafe to enter completely due to structural damage. However, based on other sample results, the age of construction and suspect ACM observed within the debris piles the contents of those buildings should be assumed to contain ACM until sample results prove otherwise. Excavations were hand dug alongside foundations to assess for damp proofing but none was observed.

The following is a summary of ACMs identified or assumed during the Weston & Sampson HBMI:

Material	Location	Approximate Quantity	Condition
Miscellaneous interior debris	Dairy Barns #1 and #2	85 Tons	Poor
Miscellaneous debris	Bull Pen Buildings	150 Tons	Poor
Miscellaneous debris	Root Cellar	365 Tons	Poor
Skim coat on walls	Calf Hospital	2,000 SF	Damaged
Pipe/fitting insulation debris	Calf Hospital	2,000 SF	Poor
Window caulk/glazing	Calf Hospital	250 LF	Damaged
Skim coat on walls	Milk Room	1,675 SF	Damaged
Transite shingle	Dairy Barn #3	6,500 SF	Good
Window caulk/glazing	Dairy Barn #3	45 windows	Damaged
Transite shingle	Manure Barn	5,000 SF	Damaged/Missing

DEP regulations require that ACM be removed from a facility being demolished or renovated prior to any activity that would disturb such material.

Asbestos Survey Limitations

Our survey did not include an exploratory demolition for the evaluation of potential ACMs associated with underground utility lines or conduits, soils, or other materials that could be hidden in wall cavities or below flooring. In addition to the above listed materials, other suspect ACMs may be present at the Site that were not accessible by Weston & Sampson during our survey. Some suspect ACMs were not able to be sampled due to the unsafe building conditions. Weston & Sampson recommends that if any suspect materials are uncovered during demolition activities that were not identified during the survey, that the materials be sampled and analyzed for asbestos content prior to removal.

Per MassDEP regulations, the owner/operator must maintain a copy of this written asbestos survey report at the subject facility for at least two years. If the facility is unstaffed or if it is demolished, the owner/operator must maintain a copy at their regular place of business.

Lead Paint Screening

Paint chip samples were collected from representative painted/coated surfaces at the Site. Limited painted surfaces were accessible for sampling during the HBM survey. Certain buildings/surfaces were completely unpainted and others were inaccessible due to structural damage.

The samples were submitted to EMSL of Cinnaminson, New Jersey for analysis for total lead via EPA Method SW846-7000B using Atomic Absorption Spectrometry. The LBP analytical results are summarized in the attached Table 2.

All of the five samples were determined to be lead containing. Four of the five samples were characterized as lead-based paint (>0.5 %) per HUD guidelines and contained lead levels high enough to potentially impact disposal. It appears that painting history within the structures is inconsistent, but any painted materials should be assumed to be lead containing for the purposes of worker protection and waste disposal. Given the high levels of lead present in some of the samples we recommend Toxicity Characteristic Leaching Procedure (TCLP) testing prior to demolition to help determine waste disposal streams.

A copy of the laboratory analytical report is included in Attachment B.

Regulatory Implications and Regulations

It is important to be aware of the relevant regulations and implications to construction-related activities. The Occupational Safety and Health Administration (OSHA) defines any detectable concentration of lead in paint as a potential lead exposure hazard to workers doing construction/demolition-type work on these surfaces, as even small concentrations of lead can result in unacceptable employee exposures depending upon the method of removal and other workplace conditions. Since these conditions can vary greatly, the lead-in-construction standard was written to require exposure monitoring or the use of historical or objective data to ensure that employee exposures do not exceed the Action Level of 30 µg/m³ (micrograms per cubic meter) of air.

OSHA requires that lead exposure monitoring must be performed by the contractor if surfaces coated with LBP are impacted during demolition. Contractors and employers of staff who may disturb these materials are obligated to perform a 'negative exposure assessment' in accordance with OSHA regulations to document that exposure to lead does not exceed the OSHA Action Level, even if only minimal levels of lead are present in these materials.

OSHA states that until the employer performs an exposure assessment (or can supply prior data

regarding the same type of work that may exempt them from the standard) and documents that employees are not exposed above the permissible exposure limit (PEL) of greater than 50 $\mu\text{g}/\text{m}^3$ of air, the employer must treat employees as if they were exposed above the PEL for the following operations:

- manual demolition of structures, manual scraping, manual sanding, and use of heat gun where lead-containing coatings or paints are present;
- abrasive blasting enclosure movement and removal;
- power tool cleaning;
- lead burning;
- using lead-containing mortar or spray painting with lead-containing paint;
- abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;
- cleanup activities where dry expendable abrasive are used; and
- any other task the employer believes may cause exposure in excess of the PEL.

The contractor must provide respiratory protection, personal protective equipment (PPE), change areas, hand-washing facilities, biological monitoring, and training until an exposure assessment has determined that the work activity will result in an exposure below the PEL. Additional requirements under this standard include a written compliance program as well as record keeping.

COST ESTIMATES

Assuming a 20% contingency, we estimate the cost to perform asbestos abatement and demolition to be approximately \$910,000 to \$1,190,000. Additionally, abatement costs may be affected if multiple phases of abatement are conducted compared to a single project. This includes removal and disposal of the approximately 5,000 SF of transite shingles located on the Manure Barn that is not scheduled for demolition. These shingles are damaged or missing in many places. The abatement of asbestos-containing materials not affected by renovation or demolition is not generally required unless the material is damaged.

The cost does not include design, bidding and construction phase services; these are estimates for the contractor bid pricing. Those costs typically add ~20% to the project.

Based on the estimated volumes and types of waste present in the buildings that are scheduled for demolition we estimate the cost to prepare a Waste Management Plan to be approximately \$6,000.

REPORT LIMITATIONS

This document is not intended to be, nor will it suffice to serve as a bid document or specification. Additional hazardous building materials may be present within buildings or located elsewhere on the property.

This concludes our Pre-Demolition HBM report. We appreciate the opportunity to assist you with this project. If you have any questions or require any additional information, please do not hesitate to contact either of the undersigned at (800) 726-7766.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

Craig Miner, LEED AP
Team Leader

Paul Uzgiris, P.E.
Senior Team Leader

Attachments:

Analytical Tables

Photo Log

Laboratory Analytical Reports

TABLE 1 - ASBESTOS ANALYTICAL RESULTS
LAMPSON BROOK FARM
BELCHERTOWN, MA

SAMPLE ID	SAMPLING DATE	MATERIAL DESCRIPTION	LOCATION	ASBESTOS RESULT (% Asbestos)
01A-B	2/9/2022	Sealant	Silo 1	10% Chrysotile
02A-B	2/9/2022	Roof Shingle	Dairy Barn Roofs	15% Chrysotile
03A-B	2/9/2022	Window sealant (caulk/glazing)	Greenhouse	NAD
04A-B	2/9/2022	Transite Siding	Manure Shed	15% Chrysotile
05A-B	2/9/2022	Paper under Siding	Loafing Barn	NAD
06A	2/9/2022	Plaster Skim Coat	Loafing Barn	NAD
07A	2/9/2022	Plaster Base Coat	Loafing Barn	NAD
08A	2/9/2022	Red Paper under Siding	Loafing Barn	NAD
09A	2/9/2022	Transite Debris	Dairy Barn 3	15% Chrysotile
10A	2/9/2022	Window Glazing	Dairy Barn 3	2% Chrysotile
11A	2/9/2022	Window Glazing	Dairy Barn 3	NAD
12A	2/9/2022	Skim on Exterior	Dairy Barn 3	NAD
13A	2/9/2022	Exterior Plaster Wall	Bull Pen	NAD
14A	2/9/2022	Roof Shingle	Loafing Barn	NAD
15A	2/9/2022	Roof Shingle in Debris Pile	Loafing Barn	NAD
16A	2/9/2022	Skim on Exterior	Dairy Barn 2	NAD
17A	2/9/2022	Plaster Wall	Dairy Barn 2	NAD
18A	2/9/2022	Tar Paper on Roof	Dairy Barn 2	NAD
19A	2/9/2022	Roof Shingle	Manure Shed	15% Chrysotile
20A	2/9/2022	Sealant	Silo 3	10% Chrysotile
21A	2/9/2022	Exterior Plaster Wall	Milk Barn	NAD
22A	2/9/2022	Roof Shingle	Milk Barn	NAD
24A	2/9/2022	Window Glazing	Calf Hospital	2% Chrysotile
25A	2/9/2022	Pipe/fitting insulation debris	Calf Hospital	10% Amosite, 50% Chrysotile
A-101 A-G	6/22/2022	Skim Coat - Grey	Dairy 2 - Plaster Wall Interior	NAD
A-102 A-G	6/22/2022	Rough Coat - Grey	Dairy 2 - Plaster Wall Interior	NAD
A-103 A-G	6/22/2022	Stucco Wall Coating - Grey	Dairy 2/3 Exterior Wall (Rough)	NAD
A-104 A-F	6/22/2022	Skim Coat on Exterior Concrete - Grey	Dairy 2/3 Exterior Wall (Smooth)	NAD
A-105 A-C	6/22/2022	Skim Coat - White	Loafing Barn Corridor	NAD
A-106 A-C	6/22/2022	Rough Coat - Grey	Loafing Barn Corridor	NAD

NOTES:

NAD = None Detected

EPA defines an ACM as a material that contains greater than 1 percent (%) asbestos.

TABLE 2 - LEAD ANALYTICAL RESULTS
LAMPSON BROOK FARM
BELCHERTOWN, MA

SAMPLE ID	SAMPLING DATE	MATERIAL DESCRIPTION	LOCATION	LEAD CONCENTRATION (%WT)
LBF-L-01	6/22/2022	Off-White Paint	Dairy 2 - Door Frame	0.18
LBF-L-02	6/22/2022	White Paint	Dairy 2 - Exterior	15
LBF-L-03	6/22/2022	White Paint	Dairy 3 - Barn Door	15
LBF-L-04	6/22/2022	Grey Paint	Dairy 2 - Window	29
LBF-L-05	6/22/2022	White Paint	Loafing Barn Corridor - Door Frame	28

NOTES:

BOLD - Lead detected

HUD defines Lead-Based Paint as lead concentrations detected greater than 0.5%.



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

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

EMSL Order: 132204013

Customer ID: WESA62

Customer PO:

Project ID:

Attention: Craig Miner

Weston & Sampson Engineers, Inc.

55 Walkers Brook Drive

Suite 100v

Reading, MA 01867

Project: Lampson Farm / MA

Phone: (978) 532-1900

Fax: (978) 977-0100

Received Date: 06/07/2022 9:55 AM

Analysis Date: 06/14/2022

Collected Date:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
01A 132204013-0001	Silo - Sealant	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
01B 132204013-0002	Silo - Sealant				Positive Stop (Not Analyzed)
02A 132204013-0003	Dairy Barn 3 - Roof Shingle	Gray Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
02B 132204013-0004	Dairy Barn 3 - Roof Shingle				Positive Stop (Not Analyzed)
03A 132204013-0005	Greenhouse - Caulk/Glazing	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03B 132204013-0006	Greenhouse - Caulk/Glazing	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04A 132204013-0007	Manure Shed - Transite Siding	Gray Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
04B 132204013-0008	Manure Shed - Transite Siding				Positive Stop (Not Analyzed)
05A 132204013-0009	Loatins Barn - Paper Under Siding - Black	Black Fibrous Homogeneous	75% Cellulose 5% Synthetic	20% Non-fibrous (Other)	None Detected
05B 132204013-0010	Loatins Barn - Paper Under Siding - Black	Black Fibrous Homogeneous	75% Cellulose 5% Synthetic	20% Non-fibrous (Other)	None Detected
06A 132204013-0011	Loatins Barn - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07A 132204013-0012	Loatins Barn - Plaster Base Coat	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08A 132204013-0013	Loatins Barn - Red Paper Under Siding	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
09A 132204013-0014	Dairy Barn 3 - Transite Debris	Gray Non-Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
10A 132204013-0015	Dairy Barn 3 - Window Glazing	White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
11A 132204013-0016	Dairy Barn 3 - Window Glazing	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 06/14/2022 17:29:46



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

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

EMSL Order: 132204013

Customer ID: WESA62

Customer PO:

Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
12A 132204013-0017	Dairy Barn 3 - Skim on Ety	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13A 132204013-0018	Bull Pen - Ext. Plaster Wall	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14A 132204013-0019	Loating Barn - Roof Shingle	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
15A 132204013-0020	Loating Barn - Roof Shingle in Debris Pile	Black/Green Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
16A 132204013-0021	Dairy Barn 2 - Skim on Ext. Conc	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17A 132204013-0022	Dairy Barn 2 - Plaster Wall	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18A 132204013-0023	Dairy Barn 2 - Tau Paper on Roof	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
19A 132204013-0024	Manure Shed - Roof Shingle	Gray Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
20A 132204013-0025	Silo 3 - Black Sealant	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
21A 132204013-0026	Milk Room - Ext. Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22A 132204013-0027	Milk Room - Roof Shingle	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
24A 132204013-0028	Calf Hospital - Window Glazing	White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
25A 132204013-0029	Calf Hospital - TSI Debris	White Fibrous Homogeneous		40% Non-fibrous (Other)	10% Amosite 50% Chrysotile

Analyst(s)

Kevin Pine (26)

Steve Grise, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, ME LB-0039

Initial report from: 06/14/2022 17:29:46

EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

132204013

 EMSL ANALYTICAL, INC.
 200 ROUTE 130 NORTH
 CINNAMINSON, NJ 08077
 PHONE: (800) 220-3675
 FAX: (856) 786-5974

Company: <u>Weston + Sampson</u>		EMSL-Bill to: ☒ Same ☐ Different If Bill to is Different note instructions in Comments**	
Street: <u>55 Walkers Brook Dr.</u>		Third Party Billing requires written authorization from third party	
City: <u>Reading</u>	State/Province: <u>MA</u>	Zip/Postal Code:	Country:
Report To (Name): <u>Craig Miner</u>		Telephone #:	
Email Address: <u>miner@wscinc.com</u>		Fax #:	Purchase Order:
Project Name/Number: <u>LAMPSON FARM</u>		Please Provide Results: ☐ Fax ☐ Email	
U.S. State Samples Taken: <u>MA</u>		CT Samples: ☐ Commercial/Taxable ☐ Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
☐ 3 Hour	☐ 6 Hour	☐ 24 Hour	☐ 48 Hour
☐ 72 Hour	☐ 96 Hour	☒ 1 Week	☐ 2 Week
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PLM - Bulk (reporting limit)		TEM - Bulk	
☒ PLM EPA 600/R-93/116 (<1%)		☐ TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	
☐ PLM EPA NOB (<1%)		☐ NY ELAP Method 198.4 (TEM)	
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)		☐ Chatfield Protocol (semi-quantitative)	
Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)		☐ TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2	
☐ NIOSH 9002 (<1%)		☐ TEM Qualitative via Filtration Prep Technique	
☐ NY ELAP Method 198.1 (friable in NY)		☐ TEM Qualitative via Drop Mount Prep Technique	
☐ NY ELAP Method 198.6 NOB (non-friable-NY)		Other	
☐ OSHA ID-191 Modified		☐	
☐ Standard Addition Method			
☒ Check For Positive Stop - Clearly Identify Homogenous Group		Date Sampled: <u>2-9-22</u>	
Samplers Name: <u>Craig Miner</u>		Samplers Signature: <u>[Signature]</u>	
Sample #	HA #	Sample Location	Material Description
01A-B		Silo	Sealant
02A-B		Dairy Barn 3	Roof Shingles
03A-B		Greenhouse	Caulk/Glazing
04A-B		Manure House Shed	transite Siding
05A-B		Lofting Barn	Paper under siding (black)
06A			Plaster Siding Coat
07A			1 Base Coat
08A			Red paper under siding
09A		Dairy Barn 3	Transite debris
10A			Window Glazing
Client Sample # (s): <u>01A - 25A</u>		Total # of Samples:	
Relinquished (Client): <u>[Signature]</u>		Date: <u>6-7-22</u>	Time:
Received (Lab):		Date:	Time:
Comments/Special Instructions:			

REC'D
EMSL BOSTON

JUN 07 2022

132204013

Page 2 of 2



EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 242203024

Customer ID: WESA77

Customer PO:

Project ID:

Attention: Lewis Tamaccio

Weston & Sampson Engineers Inc.

712 Brook Street, Suite 103

Rocky Hill, CT 06067

Phone: (860) 513-1473

Fax: (860) 513-1473

Received Date: 06/22/2022 2:35 PM

Analysis Date: 06/30/2022

Collected Date: 06/22/2022

Project: ENG22-0029

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-101 A 242203024-0001	Dairy 2 - plaster wall interior skim coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
A-101 B 242203024-0002	Dairy 2 - plaster wall interior skim coat-grey	Gray Non-Fibrous Homogeneous		12% Quartz 88% Non-fibrous (Other)	None Detected
A-101 C 242203024-0003	Dairy 2 - plaster wall interior skim coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
A-101 D 242203024-0004	Dairy 2 - plaster wall interior skim coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
A-101 E 242203024-0005	Dairy 2 - plaster wall interior skim coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
A-101 F 242203024-0006	Dairy 2 - plaster wall interior skim coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
A-102 A 242203024-0007	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	12% Quartz 88% Non-fibrous (Other)	None Detected
A-102 B 242203024-0008	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous		12% Quartz 88% Non-fibrous (Other)	None Detected
A-102 C 242203024-0009	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-102 D 242203024-0010	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-102 E 242203024-0011	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-102 F 242203024-0012	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-102 G 242203024-0013	Dairy 2 - plaster wall interior rough coat-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-101 G 242203024-0014	Dairy 2 - skim coat-grey	Gray Non-Fibrous Homogeneous		3% Quartz 97% Non-fibrous (Other)	None Detected
A-103 A 242203024-0015	Dairy 3 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	15% Quartz 85% Non-fibrous (Other)	None Detected
A-103 B 242203024-0016	Dairy 3 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected

Initial report from: 06/30/2022 12:30:57



EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 242203024

Customer ID: WESA77

Customer PO:

Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-103 C 242203024-0017	Dairy 3 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-103 D 242203024-0018	Dairy 2 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous		12% Quartz 88% Non-fibrous (Other)	None Detected
A-103 E 242203024-0019	Dairy 2 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-103 F 242203024-0020	Dairy 2 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	12% Quartz 88% Non-fibrous (Other)	None Detected
A-103 G 242203024-0021	Dairy 2 exterior - stucco wall coating-grey	Gray Non-Fibrous Homogeneous		12% Quartz 88% Non-fibrous (Other)	None Detected
A-104 A 242203024-0022	Dairy 2 exterior - wall (smooth) skim on exterior concrete	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-104 B 242203024-0023	Dairy 2 exterior - wall (smooth) skim on exterior concrete	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-104 C 242203024-0024	Dairy 2 exterior - wall (smooth) skim on exterior concrete	Gray Non-Fibrous Homogeneous	<1% Cellulose	10% Quartz 90% Non-fibrous (Other)	None Detected
A-104 D 242203024-0025	Dairy 3 exterior - wall (smooth) skim on exterior concrete	Gray Non-Fibrous Homogeneous	<1% Cellulose	12% Quartz 88% Non-fibrous (Other)	None Detected
A-104 E 242203024-0026	Dairy 3 exterior - wall (smooth) skim on exterior concrete	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-104 F 242203024-0027	Dairy 3 exterior - wall (smooth) skim on exterior concrete	Gray Non-Fibrous Homogeneous		12% Quartz 88% Non-fibrous (Other)	None Detected
A-105A 242203024-0028	Loafing barn corridor - wall plaster skim coat-white	White Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
A-105B 242203024-0029	Loafing barn corridor - wall plaster skim coat-white	White Non-Fibrous Homogeneous	<1% Cellulose	4% Quartz 96% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached material					
A-105C 242203024-0030	Loafing barn corridor - wall plaster skim coat-white	White Non-Fibrous Homogeneous	<1% Cellulose	5% Quartz 95% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached material					
A-106A 242203024-0031	Loafing barn corridor - wall plaster rough coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	10% Quartz 90% Non-fibrous (Other)	None Detected
A-106B 242203024-0032	Loafing barn corridor - wall plaster rough coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	10% Quartz 90% Non-fibrous (Other)	None Detected
A-106C 242203024-0033	Loafing barn corridor - wall plaster rough coat-grey	Gray Non-Fibrous Homogeneous	<1% Cellulose	10% Quartz 90% Non-fibrous (Other)	None Detected

Initial report from: 06/30/2022 12:30:57



EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 242203024

Customer ID: WESA77

Customer PO:

Project ID:

Analyst(s)

Danny Sandhu (7)

Sara Poppa (26)

Danny Sandhu, Asbestos Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Meriden, CT NVLAP Lab Code 200700-0,

Initial report from: 06/30/2022 12:30:57

EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (lab use only):

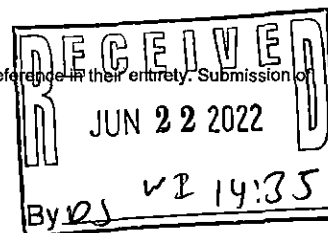
242203024

Company Name : Weston & Sampson		EMSL Customer ID: WESA77	
Street: 712 Brook St, Ste 103		City: Rocky Hill	State or Province: CT
Zip/Postal Code: 06067	Country: USA	Telephone #: 860-616-6451	Fax #:
Report To (Name): Lewis Tamaccio		Please Provide Results via: ☐ Fax ☒ Email	
email Address: tamaccio.lewis@wseinc.com		Purchase Order Number:	
Client Project ID: EN622-0029		EMSL Project ID (internal use only):	
State or Province Collected: MA		CT only ☐ Commercial/Taxable ☐ Residential/Tax Exempt	
EMSL-Bill to: ☒ Same ☐ Different - If bill to is different note instructions in comment. Third party billing requires written authorization from third party			
Turnaround Time (TAT) Options Please Check			
☐ 3 Hour	☐ 6 Hour	☐ 24 Hour	☐ 32 Hour* ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week
* 32 Hour TAT available for select tests only; samples must be submitted by 11:30am. Please call ahead for large projects and/or turnaround times 6 hours or less.			
PLM - Bulk (reporting limit)		TEM - Bulk	
☒ PLM EPA 600/R-93/116 (<1%)		☐ TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	
☐ PLM EPA NOB (<1%)		☐ NY ELAP Method 198.4 non-friable - NY	
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)		☐ Chatfield Protocol (semi-quantitative)	
Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)		☐ TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2	
☐ NIOSH 9002 (<1%)		☐ TEM Qualitative via Filtration Prep Technique	
☐ NY ELAP Method 198.1- friable - NY		☐ TEM Qualitative via Drop Mount Prep Technique	
☐ NY ELAP Method 198.6 NOB- non-friable - NY		Other tests (please specify)	
☐ NY ELAP Method 198.8- Vermiculite Surfacing Material			
☐ OSHA ID-191 Modified			
☐ EMSL Standard Addition Method			
☒ Positive Stop - Clearly Identify Homogenous Areas (HA)		Date Sampled: 6/22/22	
Sampler's Name: Lewis Tamaccio		Sampler's Signature: <i>un Tamm</i>	
Sample #	HA #	Sample Location	Material Description
A-101 A	1	Dairy 2 - Plaster Wall Interior	Skim Coat - Grey
A-101 B	1	I	I
A-101 C	1		
A-101 D	1		
A-101 E	1		
A-101 F	1		
Client Sample # (s): A-101 A - A-106 C		Total # of Samples:	
Relinquished by (Client): <i>un Tamm</i>		Date: 6-22-22	Time: 1435
Received by (Lab):		Date:	Time:
Comments/Special Instructions:			

Page 1 of 3

Controlled Document - COC-01 Asbestos Bulk - R4 - 09/10/2019

EMSL Analytical, Inc.'s (DBA: LA Testing) Laboratory Terms and Conditions are incorporated into this chain of custody by reference in their entirety. Submission of samples to EMSL Analytical Inc. constitutes acceptance and acknowledgment of all terms and conditions.





EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

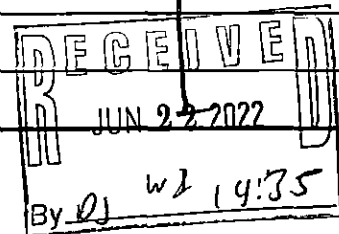
EMSL Order Number (lab use only):

242203024

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

Sample #	HA #	Sample Location	Material Description
A-102 A	2	Dairy 2 - Plaster Wall Interior	Rough Coat - Grey
A-102 B	2		
A-102 C	2		
A-102 D	2		
A-102 E	2		
A-102 F	2		
A-102 G	2		
A-101 G	1		Skim Coat - Grey
A-103 A	3	Dairy 3 Exterior	Stucco Wall Coating - Grey
A-103 B	3		
A-103 C	3		
A-103 D	3	Dairy 2 Exterior	
A-103 E	3		
A-103 F	3		
A-103 G	3		
A-104 A	4	Dairy 2 Exterior Wall (Smooth)	Skim on Exterior Concrete
A-104 B	4		
A-104 C	4		
A-104 D	4		
A-104 E	4		
A-104 F	4		
A-104 G	4		

*Comments/Special Instructions:



Page 2 of 3 pages

24203024

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

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

EMSL Order: 202205738

CustomerID: WESA77

CustomerPO:

ProjectID:

Attn: **Lewis Tamaccio**
Weston & Sampson Engineers Inc.
712 Brook Street, Suite 103
Rocky Hill, CT 06067

Phone: (860) 513-1473
Fax: (860) 513-1473
Received: 6/23/2022 11:00 AM
Collected: 6/22/2022

Project: **LAMPSON FARM / ENG22-0029****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
LBF-L-01	202205738-0001	6/22/2022	6/27/2022	0.2631 g	0.18 % wt
Site: DAIRY 2 - DOOR FRAME					
LBF-L-02	202205738-0002	6/22/2022	6/27/2022	0.3352 g	15 % wt
Site: DAIRY 2 - EXTERIOR					
LBF-L-03	202205738-0003	6/22/2022	6/27/2022	0.1043 g	15 % wt
Site: DAIRY 3 - BARN DOOR					
LBF-L-04	202205738-0004	6/22/2022	6/27/2022	0.3084 g	29 % wt
Site: DAIRY 2 - WINDOW					
LBF-L-05	202205738-0005	6/22/2022	6/27/2022	0.2806 g	28 % wt
Site: LOAFING BARN CORRIDOR - DOOR FRAME					

Owen McKenna, Lead Laboratory Director
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 06/29/2022 17:24:07



EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Lead Chain of Custody

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

PHONE: (800) 220-3675

EMAIL: CinnaminsonLeadLab@emsl.com

202205738

Customer Information Customer ID: WESA77 Company Name: Weston & Sampson Contact Name: Lewis Tamaccio Street Address: 712 Brook St, Ste 103 City, State, Zip: Rocky Hill, CT 06067 Country: USA Phone: 860-985-2646 Email(s) for Report: tamaccio.lewis@wseinc.com		Billing Information Billing ID: Company Name: Billing Contact: Street Address: City, State, Zip: Country: Phone: Email(s) for Invoice:	
Project Information			
Project Name/No: Lampson Farm / ENG22-0029 EMSL LIMS Project ID: (If applicable, EMSL will provide)		Purchase Order: US State where samples collected: MA State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)	
Sampled By Name: Lewis Tamaccio Sampled By Signature: <i>lm Tamaccio</i>		No. of Samples in Shipment:	
Turn-Around-Time (TAT) ☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.			
MATRIX	METHOD	INSTRUMENT	REPORTING LIMIT
CHIPS ☒ % by wt. ☐ ppm (mg/kg) ☐ mg/cm ²	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)
Reporting Limit based on a minimum 0.25g sample weight	SW 846-6010D	ICP-OES	0.0004% (4ppm)
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter
	NIOSH 7105	Graphite Furnace AA	0.03µg/filter
	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter
	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter
WIPE ☐ ASTM ☐ NON-ASTM	SW 846-7000B	Flame Atomic Absorption	10µg/wipe
If no box is checked, non-ASTM Wipe is assumed	SW 846-6010D	ICP-OES	1.0µg/wipe
TCLP	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)
SPLP	SW 846-1312 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW 846-1312 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40mg/kg (ppm)
	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)
	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)
Soil	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)
	SW 846-6010D*	ICP-OES	2mg/kg (ppm)
Wastewater	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)
Unpreserved ☐	EPA 200.7	ICP-OES	0.020 mg/L (ppm)
Preserved with HNO ₃ ☐ PH<2	EPA 200.5	ICP-OES	0.003 mg/L (ppm)
Drinking Water	EPA 200.8	ICP-MS	0.001 mg/L (ppm)
Unpreserved ☐			
Preserved with HNO ₃ ☐ PH<2			
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter
Other:			

Sample Number	Sample Location	Material / Volume / Area	Date / Time Sampled
LBF-L-01	Dairy 2 - door frame	off-white Paint	6.22.22
LBF-L-02	Dairy 2 - exterior	white Paint	}
LBF-L-03	Dairy 3 - barn door	white Paint	
LBF-L-04	Dairy 2 - window	gray Paint	
LBF-L-05	Loafing Barn Corridor - Door Frame	White Paint	

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by: <i>lm Tamaccio</i>	Date/Time: 6-22-22/1435	Received by: CEL EFX	Date/Time: 6/23/22 11AM
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - COC-25 Lead R15 4/5/2021

*6010C Available Upon Request

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

EMSL EFX 7/11/22 10:42:55